FINANCIAL TIMES

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Animal passions
Even vets feel the post-pandemic jobs strain — SARAH O'CONNOR, PAGE 17

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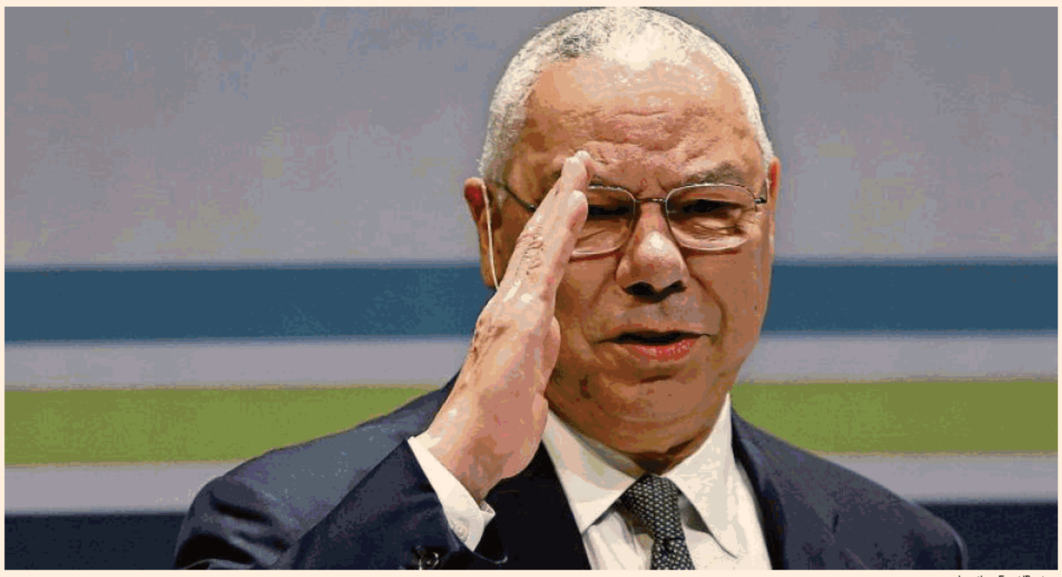
Inflation and shortages will hit poor nations too — MOHAMED EL-ERIAN, PAGE 11

Final salute
US statesman Powell dies



Jonathan Ernst/Reuters

Former US secretary of state Colin Powell, pictured in 2015, has died aged 84 from Covid-19-related complications, his family announced yesterday.

Powell was America's highest-ranking diplomat under George W Bush's administration during the Iraq war that started in 2003 to unseat Saddam Hussein, and chair of the joint chiefs of staff in George HW Bush's presidency during the 1991 Gulf war to oust Saddam's forces from Kuwait.

His family said he had been fully vaccinated against Covid, but he also suffered from the blood cancer multiple myeloma. "We have lost a remarkable and loving husband, father, grandfather and a great American," they said.

Obituary page 3

Nato chief says countering China will be part of new strategic focus

- Role for next decade set out
- US pivot to Asia spurs shift
- No retreat from Russia threat

ROULA KHALAF AND HENRY FOY — BRUSSELS

Countering the security threat from China will be an important part of Nato's future rationale, the alliance's head has said, marking a significant rethink of the western group's objectives that reflects the US pivot to Asia.

In an interview with the Financial Times, Jens Stoltenberg, secretary-general, said that while China was not an "adversary", it was having an impact on European security through its cyber capabilities, new technologies and long-range missiles. How to defend allies from those threats would be "thoroughly" addressed in the alliance's new doctrine for the coming decade, he said.

The military alliance has spent decades focused on countering Russia and, since 2001, terrorism. The new focus on China comes amid a shift in the US's orientation away from Europe to a hegemonic conflict with Beijing.

"Nato is an alliance of North America and Europe. But this region faces global challenges: terrorism, cyber but also the rise of China. So when it comes to strengthening our collective defence, that's also about how to address the rise of China," Stoltenberg said. "What we can predict is that the rise of China will have an impact on our security. It already has."

Nato will adopt its new Strategic Concept at a summit next summer to outline its purpose for 10 years. The 2010 version does not mention China. It is seeking a new direction following the end of its 20-year Afghanistan deployment, while discussions over the US military presence in Europe continue.

Stoltenberg, a former Norwegian premier who is due to step down next year after almost eight years at the helm, said Nato allies would seek to "scale down" activities outside their borders and "scale up" domestic defensive resilience to better resist external threats.

"China is coming closer to us. We see them in the Arctic. We see them in cyber space. We see them investing heavily in critical infrastructure in our countries," he said. "And, of course, they have more and more high-range weapons that can reach all Nato-allied countries. They are building many, many silos for long-range intercontinental missiles."

China tested a nuclear-capable hypersonic missile in August, the FT reported at the weekend, underscoring the rapid progress that Beijing has made on next-generation weapons.

'What we can predict is that the rise of China will impact our security. It already has,' Jens Stoltenberg told the FT

But any suggestion of a shift from deterring Russian aggression would meet protests from eastern European states that view Moscow as a threat and the alliance as sole security guarantor.

Stoltenberg said Russia and China should not be seen as separate threats. They work "closely together", he said. "When we invest more in technology . . . that's about both of them."

Stoltenberg said Nato's hasty withdrawal from Afghanistan was "an obvious choice" after the US decision to leave. He said while European militaries might have been able to remain, political leaders could not have justified it.

Moscow office spat page 2
Gideon Rachman page 17

Briefing

▸ Valneva vaccine trial results beat AZ
Results published a month after the UK terminated a €1.4bn deal with the French group have shown its shot elicits a stronger immune response with fewer side effects than the AstraZeneca jab.— PAGE 6

▸ Brussels reassurance over UK clearing
EU financial services chief Mairead McGuinness has vowed to avoid a "cliff edge" on EU banks' permit to clear deals in the UK, lifting hopes of an extension to temporary post-Brexit arrangements.— PAGE 2

▸ Property and energy hit China growth
Economic expansion in the third quarter slumped to its slowest pace in a year, adding to growing pressure on President Xi Jinping as he pursues an ambitious "common prosperity" strategy.— PAGE 4

▸ Singapore eases Covid border regime
The city-state has eased one of the world's most stringent policies. Free travel is allowed now with 10 nations, including the UK and US, after 21 months of closed borders.— PAGE 4

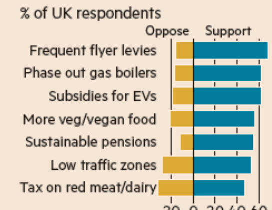
▸ UK probes US swoop on defence group
London has opened an investigation into the planned £6.3bn takeover of Meggitt by US rival Parker Hannifin, citing national security fears. The British group is seen as a "critical supplier".— PAGE 6

▸ Polish premier joins battle with EU
Mateusz Morawiecki has warned that the EU risks becoming a "centrally managed organism run by institutions deprived of democratic control" amid an escalating battle over the rule of law.— PAGE 2

▸ Goldman green light for China venture
The US bank has received regulatory approval to take full ownership of its securities joint venture in China, allowing it to expand in the country as Beijing eases restrictions on foreign groups.— PAGE 8

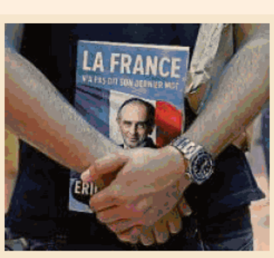
Datawatch

Towards net zero
% of UK respondents



Source: Centre for Climate Change and Social Transformations and Ipsos Mori (Aug 2021)

A majority of the UK public backs seven out of eight key net-zero policies. Frequent flyer levies receive the highest levels of support, while the least backing is shown for measures that would increase taxes on red meat and dairy



French Trump blows up rivals' election arithmetic

The arrival from nowhere of a Trump-style provocateur who lashes out at Muslims, immigration, feminism, crime and the 'decline' of France has shaken the calculations surrounding April's election. TV talk-show star Eric Zemmour holds views further to the right than Marine Le Pen, whom he has overtaken in polls. They show he could split the right's vote, foiling projections that saw president Emmanuel Macron ultimately facing off against Le Pen.

Presidential race ▸ PAGE 2

European gas prices surge as traders see no sign of Gazprom raising supply

DAVID SHEPPARD — LONDON

Russia's Gazprom has damped hopes for additional gas exports to Europe next month as the continent struggles with record prices, despite recent hints from President Vladimir Putin of increased supplies.

UK and European gas prices surged as much as 18 per cent yesterday after a keenly awaited pipeline capacity auction showed no increase from Russia, either through the Ukrainian pipeline system or lines passing via Poland to north-west Europe.

Traders and analysts said the auction result was the latest indication that Russia was in no hurry to send additional gas to Europe, leaving supplies tight and raising the prospect of shortages if the winter was colder than normal.

While Putin and Kremlin officials have hinted at sending more gas, they have also signalled that Germany's approval of the start-up of the controversial Nord Stream 2 pipeline, which bypasses Ukraine, is key to boosting supplies, alongside companies pledging to sign more long-term contracts.

"Gazprom is undoubtedly assuming that Nord Stream 2 will be approved in the relatively near future, and positioning itself accordingly," said Ron Smith, executive director at BCS Global Markets in Moscow.

The level of concern over supplies in Europe sent the benchmark gas contract for November delivery up after the auction results, rising 18 per cent to €104 per megawatt hour, while the equivalent UK contract jumped more than 15 per cent to £2.71 per therm.

Prices are more than five times higher than a year ago, posing a threat to the economic recovery from the pandemic.

Russian gas flows on the three main pipeline routes into western Europe had already declined in October to average 261m cubic metres a day compared with 302m cubic metres in September, according to Tom Marzec-Manser of consultancy ICIS. "If all existing routes were fully maximised then western European flows would be closer to 360mcm [a] day," he added.

The result of the auction came as Naftogaz, Ukraine's state gas company, said it had filed a request with German regulators to participate in the months-long process of certifying the pipeline, claiming NS2 is in breach of EU law. "The fight to stop Nord Stream 2 is far from being over," said Yuriy Vitrenko, Naftogaz's chief executive.

Additional reporting by Roman Olearchyk in Kyiv and Tom Wilson in London

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World Markets

STOCK MARKETS

	Oct 18	prev	%chg
S&P 500	4481.77	4471.37	0.23
Nasdaq Composite	14961.57	14897.34	0.43
Dow Jones Ind	35294.62	35294.76	0.00
FTSEurofirst 300	1808.87	1818.48	-0.53
Euro Stoxx 50	4154.24	4182.91	-0.69
FTSE 100	7203.83	7234.03	-0.42
FTSE All-Share	4110.17	4123.97	-0.33
CAC 40	6673.10	6727.52	-0.81
Xetra Dax	15474.47	15587.36	-0.72
Nikkei	29025.46	29068.63	-0.15
Hang Seng	25409.75	25330.96	0.31
MSCI World $	3109.47	3084.59	0.81
MSCI EM $	1283.67	1266.67	1.34
MSCI ACWI $	732.95	726.63	0.87

CURRENCIES

	Oct 18	prev		Oct 18	prev
$ per €	1.160	1.161	£ per $	0.729	0.726
$ per £	1.372	1.377	€ per £	1.183	1.186
£ per €	0.846	0.843	¥ per €	132.529	132.378
¥ per $	114.235	114.065	£ index	82.543	82.108
¥ per £	156.731	157.049	SFr per £	1.268	1.271
SFr per €	1.072	1.071			
€ per $	0.862	0.862			

COMMODITIES

	Oct 18	prev	%chg
Oil WTI $	81.68	82.28	-0.73
Oil Brent $	84.52	84.86	-0.40
Gold $	1757.65	1773.25	-0.88

INTEREST RATES

	price	yield	chg
US Gov 10 yr	146.71	1.59	0.02
UK Gov 10 yr		1.04	0.03
Ger Gov 10 yr		-0.15	0.02
Jpn Gov 10 yr	115.24	0.09	0.02
US Gov 30 yr	112.97	2.03	-0.04
Ger Gov 2 yr	105.14	-0.63	0.06

	price	prev	chg
Fed Funds Eff	0.08	0.09	-0.01
US 3m Bills	0.05	0.05	0.00
Euro Libor 3m	-0.57	-0.57	0.00
UK 3m	0.13	0.14	-0.01

Prices are latest for edition | Data provided by Morningstar

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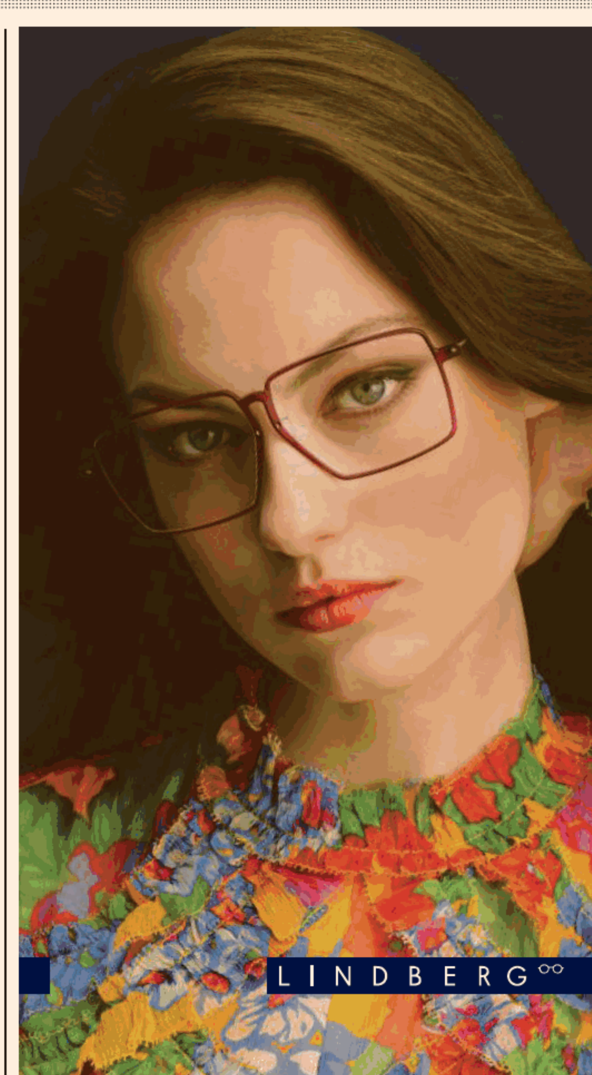


INTERNATIONAL

UK clearing

Brussels rules out 'cliff edge' on bank access

McGuinness says decision on 'equivalence' extension expected within weeks

SAM FLEMING AND MEHREEN KHAN
BRUSSELS
PHILIP STAFFORD — LONDON

The EU's financial services chief has pledged to avoid market instability or a "cliff edge" over a decision about European banks' ability to access UK clearing houses.

The comments by Mairead McGuinness will raise investors' expectations that Brussels is preparing an extension to its temporary permit.

McGuinness said the European Commission would not engage in "any sudden twists and turns" on a decision over the licence that allows European banks to clear deals worth billions in London until mid-2022. A decision could come within weeks, she said.

However, she also urged market participants to take seriously the commission's demand that more euro-denominated derivatives business move to the EU over the longer term, following the UK's decision to quit the single market.

"We have to make sure that there is no instability in the short term but we also have to look at our long-term interests," McGuinness said. "They should read my lips and hear what I am saying. We do view this as a strategic issue for us in the medium, long term."

European and US banks and asset managers have been urging Brussels to again extend its "equivalence" decision for access to UK clearing houses beyond next June given the huge amount of liquidity in the City of London market.

The commission, however, wants business shifted back to the EU because it is unhappy about the financial stability risks of up to €80tn of open contracts being handled in a market that is no longer subject to its direct oversight. Clearing houses sit between deals and prevent defaults from ricocheting through the market.

> 'There is no incentive, there is no bonus for them to do anything. They may only be looking at the cost'

The problem for the commission is that there has been little sign of any shift in business towards EU financial capitals since the UK's exit from the single market at the start of the year. London's LCH still handles about 90 per cent of all euro-denominated derivatives, according to Osttra, the data provider.

Users can net their positions by concentrating them in one place, saving them millions of dollars a day on the insurance required to back their deals.

McGuinness acknowledged the lack of movement, saying it was not a surprise. "There is no incentive, there is no bonus for them to do anything. They may only be looking at the cost."

However, she insisted: "Whatever happens around movement, which is still a point of discussion with us, will not happen overnight, but we believe can happen over time."

The EU valued London's strength in clearing when the UK was part of the single market but matters were now different. "We need to take account of that, while not making any sharp or rash decisions, so no cliff edge," she said.

EU-UK tensions have been rising again because of the wrangling over trade between Great Britain and Northern Ireland. McGuinness said the EU was not seeking to embroil financial services decision-making in the dispute over the UK withdrawal agreement.

"At the moment we are not, if you like, using or will use financial services as a reaction," she said. "But then we don't exactly know what the UK are going to do next".

April election. Insurgent

Zemmour shakes up French presidential race

Far-right polemicist deploys Macron's tactics to play havoc with his rivals' calculations

VICTOR MALLET — PARIS

Ever since Emmanuel Macron was elected French president in 2017, opinion polls have predicted that in next year's contest he will again meet Marine Le Pen, the far-right leader, in a second-round run-off. But the emergence of an insurgent newcomer has suddenly thrown the race wide open.

Only six months before the April election, Eric Zemmour, another far-right figure, has repeated a trick performed by Macron, coming from nowhere to storm up the opinion polls and eye the Elysée Palace. In little more than a month, the anti-immigration polemicist has started to outpoll every potential candidate except Macron himself.

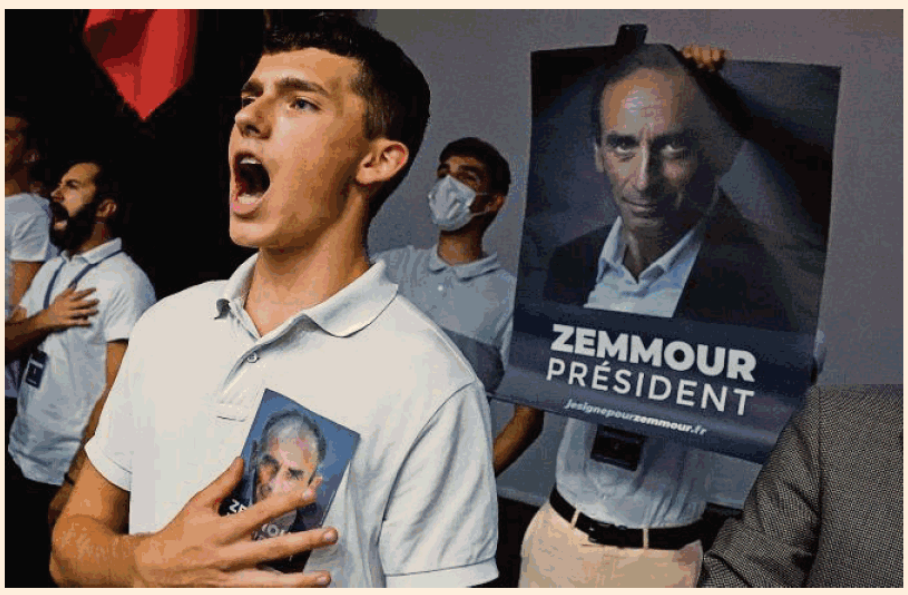
The two are very different. Although Macron campaigned last time as a revolutionary who was "neither right nor left" and who wanted to shake up French politics, he is an establishment figure. A former banker, he graduated from the elite Ecole Nationale d'Administration, served as finance minister and has governed from the centre as a liberal internationalist.

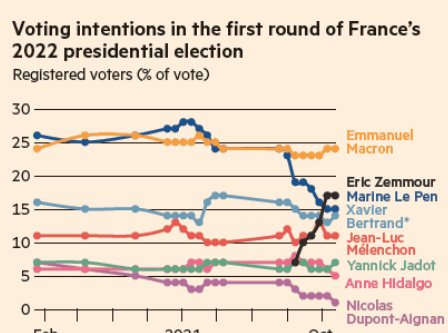
Zemmour looks like a typical member of the French intellectual elite; the 63-year-old writer and commentator has written more than a dozen books on history, politics and society. But critics see him as a dangerous, Donald Trump-style provocateur, a TV talk-show star who rails against Muslims, immigration, feminism, crime and the supposed decline of France, and whose views are more extreme than those of Le Pen.

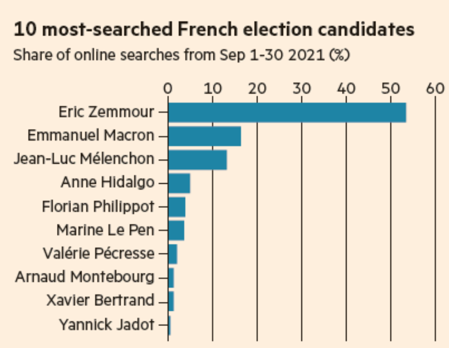
Of Algerian Jewish and Berber origin himself, Zemmour has twice been convicted of religious or racial provocation.

It is still early days, and not all the potential candidates have officially declared they will run, but Zemmour's popularity has already played havoc with their electoral calculations.

His rise "worries [the centre-right] Les Républicains, the main ideological competitors of Macron", said Chloé Morin of the Fondation Jean-Jaurès think-tank. "It worries Marine Le Pen, who was high in the polls for the past five years. And it worries the left because it polarises the debate on immigration and law and order while the left is more inaudible than ever."







Sources: Harris Interactive for Challenges; Insead Barometer * Assuming he is the candidate of Les Républicains

In full voice: supporters of Eric Zemmour attend a meeting in Béziers last week
Eric Gaillard/Reuters

But Zemmour's rise also offers some candidates an opportunity. If he and Le Pen remain in the race, the split in the rightwing vote could cut the percentage threshold for candidates hoping to qualify for the second round. Assuming that Macron maintains his lead, instead of competing against Le Pen he could come up against Zemmour, a centre-right candidate or even one from the left if the parties agree on a unity candidate.

The latest opinion poll of first-round voting intentions from Harris Interactive for Challenges magazine gave Macron 24-27 per cent and Zemmour 17-18 per cent. Neither has yet officially declared their candidacy. The poll put Le Pen on 15-16 per cent.

Polling suggested voters were unexcited by the prospect of another Macron-Le Pen duel, said Morin. "So as soon as a new player emerges . . . the terrain is favourable for them."

> 'As soon as a new player emerges the terrain is favourable for them'

Zemmour has also created a buzz online. There were four times more Google searches last month for Zemmour than for Macron and 16 times more than for Le Pen, said David Dubois, associate professor of marketing at Insead, the business school.

His findings suggest the media-savvy Zemmour, like Trump, has focused on topics that attract intense interest from voters, especially immigration and crime. His call for a ban on foreign first names such as Mohammed or Kevin became a hot topic, as did a photograph of him in Paris Match embracing Sarah Knafo, 28, his campaign adviser, in the sea off a Mediterranean beach.

Macron's supporters are in a dilemma, reluctant to attack Zemmour for fear of increasing his prominence but eager to challenge what one member of the government dismissed as his "pseudo-historical" vision of a declining France. "It's a very divided country and tempers are running high," the person said.

Meanwhile, the French electorate, from middle-aged voters weary of "woke" politics to young people turned off by the traditional parties, is taking a close interest in what Zemmour has to say.

"I share some ideas with Eric Zemmour and I've started to follow Génération Z [a support group of young militants] on social networks," said a 22-year-old masters student on the outskirts of Paris. "I immediately liked that the young are engaging with ideas not represented in traditional media." Zemmour was a Gaullist who stood up for French culture and identity and could unite the right, he said.

Zemmour's enemies are hoping his attraction will wane once he declares himself a candidate and has to explain exactly what he would do if elected. He might also find it hard to muster the millions of euros in campaign financing he needs and the 500 signatures from elected officials across France required to stand in the election.

"The difference with Trump is that he had the Republican party behind him, while Zemmour is pretty much alone," said Benjamin Morel, a political scientist. "But if he gets the money and the signatures, then he becomes a serious candidate."

Additional reporting by Domitille Alain in Paris

Rule of law dispute

Poland PM says financial penalties 'dangerous' to EU existence

JAMES SHOTTER — WARSAW
SAM FLEMING — BRUSSELS
HENRY FOY — STRASBOURG

The EU risks becoming a "centrally managed organism run by institutions deprived of democratic control", Poland's prime minister has warned amid an escalating battle over the rule of law between Warsaw and Brussels.

In a letter to EU heads of government published yesterday, Mateusz Morawiecki insisted Poland remained "a loyal member" of the union, which it joined in 2004. But he warned that penalising member states financially — as the commission is considering doing in its standoff with Poland — would be "dangerous to the continuation of the [EU]".

The prime minister was writing ahead of an appearance today before the European Parliament in Strasbourg at which he is expected to reiterate his defence of Poland's handling of rule of law issues. Ursula von der Leyen, the European Commission president, is due to speak in the same debate.

Warsaw and Brussels have spent much of the past five years at odds over changes by Poland's ruling Law and Justice party that give politicians sweeping powers over the judiciary, and which the European Commission regards as a basic threat to judicial independence.

In recent weeks, those tensions have deepened after the Polish constitutional court ruled that significant parts of EU law were not compatible with the Polish constitution, issuing a direct challenge to the EU's legal order, and sparking questions about Poland's long-term position in the bloc.

"Unfortunately, today we are dealing with a very dangerous phenomenon whereby various European Union institutions usurp powers they do not have under the treaties and impose their will on member states," Morawiecki wrote.

"This is particularly evident today as financial tools are being used for such a purpose. Without any legal basis, there is an attempt to force member states to do what the institutions of the union tell them to do — irrespective of any legal basis to impose such demands. Such a practice cannot be accepted."

Morawiecki's letter and his speech are a response to what one Polish official said was "the language of open blackmail" from those calling for financial penalties against Warsaw.

"We are treated unfairly. [He] will defend principles and Poland's status in the EU," the official said. "It is up to our opponents how it will go."

In a sign of the hardline mood in Warsaw, Zbigniew Ziobro, justice minister, said he would ask the government to submit a request to the European Court of Justice to assess the independence of Germany's judges.

"Since the EU is based on the equality of all its states and citizens, it is necessary to assess the situation in Germany, where the choice of judges to their equivalent of the Supreme Court is of a completely political nature," he said.

The commission has a number of tools at its disposal as it seeks to hold the line on rule of law matters. These include bringing further infringement action over the Polish tribunal ruling. It has also withheld approval of Poland's €36bn bid for EU recovery fund money.

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Military alliance

Nato ordered to close Moscow office after expelling Russians

HENRY FOY — STRASBOURG
MAX SEDDON — MOSCOW

Russia has ordered Nato to close its liaison office in Moscow and recalled diplomats accredited to the military alliance, the foreign ministry said.

The measures, in effect severing diplomatic ties as relations continue to sink to their lowest level since the cold war, come into effect on November 1, the ministry said.

This month, Nato expelled eight members of the Russian delegation to the alliance who, it said, were "undeclared intelligence officers", reducing it to a maximum of 10 diplomatic staff.

"We do not have the conditions for even basic diplomatic activity as a result of intentional steps by Nato," Sergei Lavrov, Russia's foreign minister, said yesterday. "In response to Nato's actions, we are suspending the work of our permanent mission to Nato."

The accreditations of Nato staff in Moscow would also be withdrawn, Lavrov said. If Nato officials needed to contact Moscow, they could do so via the Russian ambassador to Belgium.

Relations between the Kremlin and western capitals are at their lowest point since the end of the cold war. The chill follows Moscow's annexation of Crimea from Ukraine in 2014, allegations of meddling in western elections and the attempted assassination of Alexei Navalny, the Kremlin critic.

The invasion of Crimea led to the suspension of all practical military co-operation between Russia and Nato, first formalised in 1997. After the attempted assassination of Sergei Skripal, the double agent, in the UK in 2018, Nato reduced the maximum size of the Russian delegation to 20 from 30 diplomats.

Nato had previously said channels of communication remained open but Moscow's decision to suspend its Nato mission formally closes them.

Nato said it had "taken note of minister Lavrov's comments to the media. However, we have not received any official communication on the issues he raised".

FDP

Germany's liberal party backs formal coalition talks

GUY CHAZAN — BERLIN

Germany's Social Democrats, Greens and liberal Free Democrats (FDP) are to launch formal talks on creating a coalition government after the FDP gave the green light to negotiations.

The move comes three weeks after national elections, which were narrowly won by the SPD and saw Angela Merkel's ruling Christian Democratic Union slide to the worst result in its history.

If the talks go according to the parties' plan, Olaf Scholz, Germany's finance minister and Social Democrat candidate for chancellor, will succeed Merkel, who is stepping down after 16 years.

Christian Lindner, FDP leader, said a joint meeting of the party's parliamentary caucus and its national executive yesterday had voted unanimously to start talks with the SPD and Greens. "Germany needs a stable government, Germany can't be leaderless," he said. "Germany needs a sweeping modernisation of its society, economy and state."

The so-called traffic light coalition — named after the three parties' colours — will be the first such combination in German postwar history. It could prove awkward — the FDP and Greens disagree over fiscal policy, the role of the state and how to tackle climate change.

But they overcame some of those differences over eight days of talks after the election. These resulted in a 12-page paper summing up policies they could all agree on, that will now form the basis of formal coalition negotiations. The paper reflected some of the key demands of each party.

Lindner said it was "no surprise that there are still big policy differences". At the outset, he said, it was a "marriage of convenience. It's up to all the participants to see if something can come of it."

He said the three would all have to exhibit "a great deal of tolerance" and "be prepared for new thinking". Then there was a chance a new, reform-minded government could be created that would make Germany "freer, more sustainable, more digital, more modern and more competitive".

INTERNATIONAL

Soldier and top US diplomat who regretted speech on Iraq

Colin Powell
US general and statesman
1937-2021

Colin Luther Powell, who died yesterday at the age of 84 from complications related to Covid-19, was a trailblazing US military leader and national security official who served as America's first black secretary of state at the start of the 2003 Iraq war.

Powell was a longtime Republican tapped for top positions in the administrations of presidents ranging from Ronald Reagan to George HW Bush and finally George W Bush — but would cross party lines to endorse the Democrats Barack Obama, Hillary Clinton and Joe Biden in presidential races.

Over his decades-long career at the pinnacle of America's defence establishment, Powell earned a reputation for being both honourable and effective — a level of respect in Washington that often caused him to be thought of as a possible presidential candidate.

But his association with the 2003 Iraq invasion, in particular his defence of the intelligence that was later proven wrong about Saddam Hussein's development of weapons of mass destruction, blotched his record in a way that he openly acknowledged.

"I'm the one who presented it on behalf of the United States to the world," Powell told Barbara Walters in a 2005 interview after leaving government. "It was painful. It's painful now".

Powell followed a tradition of sorts — that soldiers could serve the nation out of uniform. George Washington, Ulysses Grant, and Dwight Eisenhower, victorious commanders in America's most important wars, all became presidents. General George Marshall, architect of the plan that revitalised Europe after the second world war, was like Powell tapped to be secretary of state.

> 'My Lai was an appalling example of much that had gone wrong in Vietnam'

Powell was born on April 5, 1937, in Harlem, New York, the second child of Luther and Maud Ariel Powell, who had immigrated from Jamaica in the 1920s. His father was a foreman in the shipping department of a garment trade company. He was educated at a high school in the Bronx and at the City College of New York, which he chose over New York University because tuition cost only $10 a year.

After college, where he had served in the Reserve Officers' Training Corps, he enlisted in the US Army as a commissioned lieutenant, initially for a three-year tour which included two in Germany. He signed up again in 1961, recalling in his memoirs that for "a black, no other avenue in American society offered so much opportunity".

While based in Fort Devens, Massachusetts, he met Alma Johnson of Birmingham, Alabama, then an audiologist in Boston. They were married in August 1962 and had two daughters and a son.

By the end of that year he was in Vietnam and soon after, as an infantry captain, in combat, he took a wound in the foot while heading a patrol column. Five years later, having completed staff college, he was back in Vietnam as a major, somewhat removed from the fighting but close enough to break an ankle when his helicopter crashed.

Vietnam left its mark on Powell. He was indirectly associated with the My Lai massacre of more than 1,000 civilians in 1968 by US troops commanded by a captain who had reported to him at divisional headquarters. He later wrote that "My Lai was an appalling example of much that had gone wrong in Vietnam".

But his record in Vietnam also helped confirm him as a high flyer. In 1969 he became a graduate student in government and business administration at George Washington University. Even more important to his later life, in 1972 he became a White House Fellow for a year under Richard Nixon, assigned to the Office of Management and Budget, run at the time by Caspar Weinberger and Frank Carlucci, useful mentors and acknowledged master practitioners of Washington bureaucratic intrigue.

In the 1970s and 1980s Powell switched between civilian and military roles. He got his first large command, over three battalions of the 101st Airborne Division — and moved to the Pentagon during Jimmy Carter's administration as an adviser to the deputy defence secretary.

But, from his Pentagon vantage point, he was spared implication in the great disaster of the Reagan administration's foreign policy — the Iran-Contra affair — even benefited from it when the full details became public.

When the story finally broke late in 1986, Powell had been in Germany for less than six months, now with three stars and in command of the 75,000 strong V corps. Carlucci, who had been made National Security Adviser on the resignation of the disgraced Admiral John Poindexter, then called Powell as his deputy in the White House to help in straightening out the mess, and eventually, in November 1987, Powell was asked to take over as head of Reagan's NSC, just ahead of the landmark 1988 summit with Mikhail Gorbachev which produced a historic arms reduction agreement.

Once George HW Bush became president and Powell was now a four-star general, Powell was asked to be chairman of the joint chiefs of staff, the highest military position.

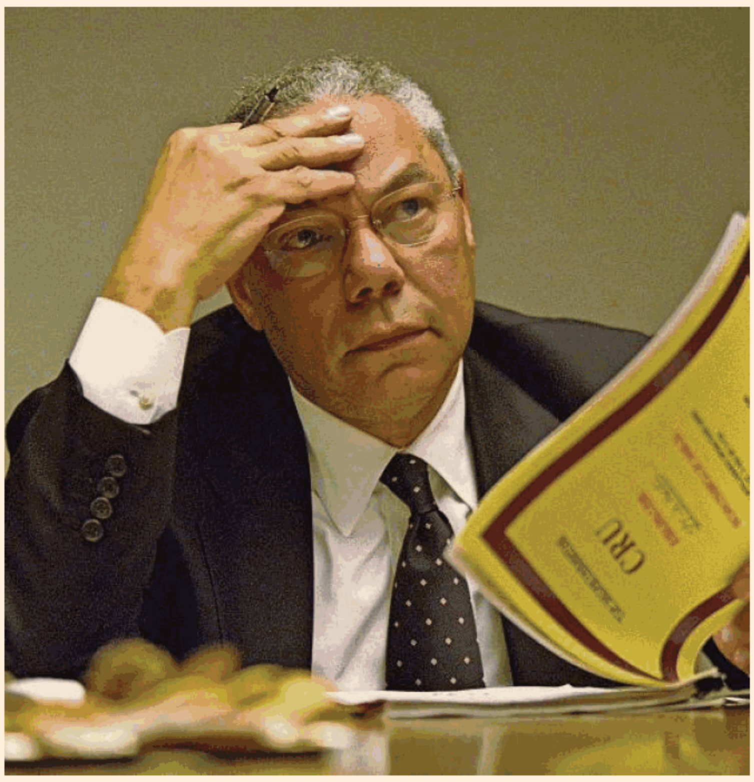
On August 1, 1990, when Iraqi troops occupied Kuwait, posing a threat to Saudi Arabia, it fell to Powell to assemble the multinational military force to evict Iraq. The ensuing Gulf war, which began in January 1991, also was to prove a test of what had already become known as the Powell Doctrine.

Rooted in the experience of Vietnam, this held that US forces should only be committed overseas in sufficient strength as to ensure victory. The brief war itself vindicated the Powell Doctrine, but its conclusion remained controversial. President George HW Bush took the view that the mandate of the multinational force was to liberate Kuwait, not to march on to Baghdad and unseat Saddam Hussein.

Powell was now a national figure and often cited as a possible contender for the White House. At the time, Powell's political beliefs were closely held. He had been brought up a Democrat but had cast his ballot for Republican tickets. When the offer came from George W Bush to be secretary of state, the temptation was irresistible. His experience in the wider world, in addition to his untouchability as a national icon, also offered a reassuring component to compensate for clear gaps in the new president's knowledge of foreign policy.

Yet by 2003, Powell seemed to defy his own advice on America's cautious use of military force, and the importance of alliance-building, as he went along with George W Bush's drive to invade Iraq. Powell's legacy will forever be linked to a speech he delivered to the United Nations Security Council on February 5, 2003, in which he offered evidence of Baghdad's development of weapons of mass destruction that was ultimately debunked.

Jurek Martin and James Politi



Colin Powell in the emergency operations centre after the September 11, 2001 attacks, left; as a young man in 1956, above; conferring with Caspar Weinberger, defence secretary, in 1985; posing with his family in 1987 — David Bohrer/US National Archives/Getty; EPN/Newscom/Avalon; AP/J Scott Applewhite; Diana Walker/Getty

INTERNATIONAL

Asia

China grows in third quarter but momentum slows

Data add to pressure on Xi as he approaches final year of his second term

THOMAS HALE — HONG KONG
RYAN MCMORROW — BEIJING
TOM MITCHELL — SINGAPORE

China's economic growth in the third quarter slumped to its slowest pace in a year, as a property slowdown and energy shortages highlighted rising pressure on policymakers.

Gross domestic product grew 4.9 per cent year on year between July and September, according to data released by the National Bureau of Statistics yesterday, compared with 7.9 per cent in the three months ending in June. On a quarter-on-quarter basis, growth was just 0.2 per cent.

The figures add to the pressure building on President Xi Jinping as he enters the final year of his second term and pursues an ambitious "common prosperity" strategy, an effort to tackle "excessively high incomes" and encourage wealth redistribution.

The Chinese leader's priorities include a crackdown on leverage in the struggling property sector that could mark a shift away from the country's debt-fuelled economic model.

Policymakers are also grappling with an energy crisis that has led to power rationing, pushed factory gate inflation to its highest level since 1995 and forced the government to increase coal production despite pledges last year to reduce carbon emissions. China has also had to deal with coronavirus outbreaks, which have led to travel restrictions.

"After entering the third quarter, risks and challenges at home and abroad increased with the pandemic continuing to spread and the recovery of the world economy slowing down," said Fu Linghui of China's statistics bureau. Fu added that the "impact of tight energy supply on the economy" was "temporary" and the real estate market had "generally stabilised".

Tommy Wu, lead economist at Oxford Economics, said "electricity shortages and production cuts will become less of a problem" in the fourth quarter but the real estate downturn "should weigh substantially" on growth to the end of the year. "We expect more measures to shore up growth, including ensuring ample liquidity in the interbank market, accelerating infrastructure development and relaxing some aspects of credit and real estate policies."

4.9% Growth in GDP year on year between July and September

0.2% Growth on a quarter-on-quarter basis in China

People's Bank of China officials made no reference to any potential cut in the reserve ratio requirement, a way of freeing up liquidity, in a briefing on Friday.

China's economy far outperformed others in 2020, driven by a construction boom, industrial activity and soaring exports, after Covid-19 cases slowed. But the latest data reflect a loss of momentum, with industrial production growing 3.1 per cent in September and edging just 0.1 per cent higher month on month. Retail sales, a gauge of consumer spending that has lagged behind the wider recovery in part because of strict Covid-19 travel restrictions, beat expectations to grow 4.4 per cent.

The country's reliance on a credit-fuelled investment binge to counter the drag of the pandemic, combined with bank reserve cuts in mid-2020, led to surging home prices in major cities.

But the government has moved to constrain mortgage lending and borrowing by property developers, casting a shadow over a sector that contributes more than a quarter of economic output. Last month Evergrande, China's second-largest developer by sales, missed a series of bond payments, leading to a collapse in investor demand for bonds issued by other property groups.

Despite China's broader slowdown, exports grew 28 per cent last month year on year in dollar terms, in a sign of resilience for the trade sector despite the energy crisis and supply chain challenges. The CSI 300 index of Shanghai and Shenzhen stocks was down as much 1.8 per cent after the data were released.
Additional reporting by Xinning Liu in Beijing and Hudson Lockett in Hong Kong

Infrastructure. Investment drive

Washington to take on Beijing in Latin America

Plan targets renewable energy, digital technology and smaller businesses led by women

MICHAEL STOTT

The US hopes to win back ground lost to China in Latin America with an ambitious initiative to fund infrastructure.

Foreign investment in Latin America was long dominated by the US and Europe, but for the past 15 years Chinese policy banks have funnelled more than $137bn of investment to governments and state corporations in the region, according to a database by the Inter-American Dialogue in Washington.

At the same time, China has become the biggest trading partner for Brazil, Chile and Peru and is close to achieving that status in Argentina. During the pandemic, Chinese donations of medical equipment and supplies, followed by early vaccine sales, led to talk of Beijing's "mask diplomacy".

US president Joe Biden's deputy national security adviser said Washington was not asking the region to choose between the US and China. "We're there to compete because we do think we have a better product," Daleep Singh said after touring Colombia, Panama and Ecuador to outline the initiative.

The "product" Singh is promoting is Build Back Better World, an attempt to use development finance from US bodies such as the Export-Import Bank, the US Agency for International Development and the US International Development Finance Corporation (DFC) to help unlock bigger sums from the private sector, with other G7 countries.

Areas targeted included renewable energy, digital technology, medical equipment and lending to smaller businesses led by women, Singh said. "We decided to make our first listening tour to Latin America . . . given the proximity to the US and our core interest there." Other regions will follow.

Panama's foreign minister Erika Mouynes said the US initiative was a welcome and positive development as the region worked to come out of the coronavirus-induced downturn. "We would love to have more investment from anybody," she told the FT.

Under Panama's current administration, "the US is frankly the first one to propose an initiative [and] hopefully we'll see some key components actually materialise". Panama had suggested investments in clean water and broadband access in rural areas as well as finance for small and medium-sized businesses led by women, but specific sums were not discussed, she added.

Energy draw: a solar farm in São Paulo, Brazil. Below: a citizen of Colombia is given a Covid jab made by China
Jonne Roriz/Bloomberg; Joaquin Sarmiento/AFP/Getty

Margaret Myers, a China-Latin American expert at the Inter-American Dialogue, questioned how much impact the US initiative would make.

"If this is supposed to be a response to [China's] Belt and Road Initiative, BRI is not just about infrastructure. It's also focused on a lot of other areas, such as boosting trade, widespread public diplomacy . . . and financial connectivity." Early Chinese investment and trade in Latin America focused on traditional areas such as raw materials, but more recent deals have concentrated on higher-value sectors such as smartphones, 5G infrastructure, surveillance technology, cloud computing, renewable energy and electricity transmission, said Myers.

"It's very hard to compete with China at this juncture . . . China is already so well established in many of these highly competitive sectors," Myers added.

Two deals by Chinese companies at the end of 2019 highlighted the trend. China Yangtze Power paid $3.6bn for Peru's biggest electricity company, while State Grid of China bought Chile's third-biggest electricity distributor Chilquinta Energia for $3bn.

Christopher Sabatini, senior fellow for Latin America at Chatham House, said Build Back Better World was a welcome change from Trump-era policies of "worrying about China and not offering alternatives". But he added: "The US bilateral development budget has been cut so much. Where will the money come from? . . . It's not clear how this will leverage the private sector, especially when Latin America's growth potential is stagnating or declining."

'There is no Build Back Better for Latin America and the Caribbean without the funding'

The health and economic impact of the coronavirus pandemic in Latin America was among the worst in the world. The region's economies shrank 7 per cent last year. Although they have bounced back, growth in 2022 will slow sharply, according to IMF forecasts.

Singh declined to specify how much funding would be available, saying the Biden administration's ambition was "to mobilise hundreds of billions of dollars towards this effort" globally. Among ideas under consideration was raising the ability of the US government to make equity investments in projects.

"There is no Build Back Better for Latin America and the Caribbean without the funding and the expertise to implement these infrastructure projects," said one official at an international financial institution. "The problem is that the US government doesn't do financing. The DFC . . . doesn't have the money nor the experience to really have an impact on these types of projects."

Gideon Rachman see Opinion

Pandemic

Singapore eases travel restrictions on more countries

MERCEDES RUEHL — SINGAPORE

Singapore has eased one of the world's most stringent pandemic regimes, with quarantine-free travel arrangements with 10 countries allowed after nearly 21 months of closed borders.

From today, fully vaccinated people will be able to travel freely to eight countries including the UK, US, France, Italy, the Netherlands and Canada. The city-state opened a travel lane with Germany in September while quarantine-free travel with South Korea will start in November.

The reopening of the Asian finance hub comes as other countries in the region, including Thailand and Australia, have also started to ease travel restrictions. Regional rival Hong Kong, meanwhile, shows little sign of lifting its tight restrictions.

When Singapore announced the move to ease travel restrictions on October 9, airline websites crashed and ticket prices soared as thousands of expatriate and foreign workers scrambled to get home.

Shares in Singapore Airlines rallied to their highest levels since April following the decision, up 8 per cent since the announcement.

Steven Phua, director of travel company Rave Group, said he was receiving 10 to 20 calls a day — well above pre-pandemic levels — asking about the vaccinated travel lanes (VTLs) from both locals wanting to go on holiday abroad and foreign workers trying to visit home.

"I agree with government policy about staying safe but it was very important for Singapore to finally reopen," he said. Tickets on Rave's online booking system had been "flying off the shelf".

The reopening of some borders may help stem the outflow of foreign workers — upon which Singapore's $344bn economy is heavily reliant — during the pandemic. The country recently reported a 10.7 per cent drop in its foreign population, which includes expats, students and migrant workers, in June compared with a year earlier.

Business groups have encouraged looser border restrictions, with the European Chamber of Commerce saying reopening was "crucial".

The VTLs offer a reprieve from Singapore's stringent social-distancing restrictions. But despite switching from a Covid-zero approach to "living with" the virus, domestic rules remain restrictive. A maximum of two people are allowed to dine together in restaurants, while music at such establishments is banned.

Many in Singapore have taken to social media channels to complain about the incongruity of allowing relatively easy international travel while enforcing heavy domestic restrictions.

The website of Singapore Airlines was temporarily unavailable following the announcement that travel restrictions would be eased, with the company citing "technical difficulties".

One British professional in the city, who waited for a few days before buying return flights to London, lamented that delaying had meant ticket prices rose from about S$5,000 (US$3,700) to S$10,000 for a family of five.

Requirements for those travelling on VTLs have also caused confusion, with many turning to specialists for advice.

"We need to explain the rules to uncertain customers but we also need to keep checking websites of different governments to know their requirements," said Kay Swee Pin, managing director of SA Tours, which specialises in group travel.

North Africa

Algeria and Morocco tensions rise over gas, separatists and Western Sahara

HEBA SALEH — CAIRO

Relations between Algeria and Morocco, arch rivals that once fought a border war, have worsened following a threat to cut off gas supplies, allegations of support for a separatist group and renewed strains over disputed territory.

One consequence of the deterioration in relations is that Algeria's oil minister has said his country will not renew an agreement, set to expire at the end of October, that governs a pipeline carrying Algerian natural gas through Morocco to Spain. Algiers has also banned Moroccan flights from its airspace.

Algerian security services announced last week they had arrested 17 people and foiled a plot to carry out armed attacks by the Movement for the Autonomy of Kabylia, MAK, a Paris-based group that calls for self-determination for the Berber-speaking region of Kabylia in northern Algeria.

The group has denied any involvement in violence and said it only used peaceful means.

The announcement said the alleged MAK operatives, designated a terrorist group in Algeria, were aided by the "Zionist entity [Israel] and a North African country" — understood to be a reference to Morocco, which normalised relations with the Jewish state last year.

Always tetchy, ties between the north African neighbours have broken down completely due to renewed strains over the disputed territory of Western Sahara, and analysts fear escalation.

"The biggest risk is miscalculation," said Riccardo Fabiani, north Africa director at the International Crisis Group, a conflict-resolution organisation. "While neither Algeria nor Morocco has any interest in triggering a war, the risk is that tensions could escalate beyond control if either side goes too far."

Morocco, which has controlled most of the arid and sparsely populated territory of Western Sahara since Spain withdrew in 1975, claims sovereignty. But Algeria hosts and supports the Polisario Front, the Sahrawi group fighting for independence for the territory.

Plans for a UN referendum on self-determination for Western Sahara have been stalled for decades. A 30-year ceasefire broke down in November last year and the Polisario Front has resumed hit-and-run attacks and long-distance shelling against Moroccan positions there.

Morocco's claim on Western Sahara was bolstered by US recognition of its sovereignty over the territory in December 2020 under Donald Trump's administration, in a quid pro quo for Rabat's normalisation of relations with Israel.

Disputed territory: a Moroccan soldier on patrol in Western Sahara

An outcome of the US recognition, say analysts, is that Morocco has conducted a more assertive foreign policy aimed at eliciting a similar shift from countries still adhering to the UN position on the disputed territory.

It froze ties with the German embassy in Rabat and recalled its own ambassador to Berlin because Germany criticised the US move.

US support and normalisation with Israel has changed the dynamic of relations between Morocco and Algeria, according to Fabiani. "With the normalisation deal, Morocco now has access to Israeli technology such as drones," he said. "There is a fear in Algiers that this will change the balance of power."

Algeria cut off ties in August after Morocco's ambassador to the UN said the "valiant Kabyle people" deserve "their right to self-determination".

Abdelmadjid Tebboune, the Algerian president, said last week no decision had yet been taken on the gas pipeline, but vowed to make up any shortfall in Spain's supply by shipping liquefied natural gas.

Morocco has used the pipeline gas to generate some electricity and enjoyed a royalty for passage through its territory. Losing access would be a "massive inconvenience, but Morocco has been preparing for it", said Anthony Skinner, Middle East and north Africa director at Verisk Maplecroft, a UK risk consultancy. It would, however, compel the kingdom to resort to LNG, which is more expensive, or coal, he said.

Tebboune said whoever attacked Algeria "would regret the day they were born, because we would not stop [fighting]". He added: "Morocco has an old and repeated record of hostile acts against Algeria."

Mohammed Masbah, head of the Moroccan Institute for Policy Analysis, said relations between the two countries were "like a never-ending cold war".

He also warned of the potential for inadvertent violence, adding: "In the current situation, the best outcome would be to return to the status quo before the current escalation and to manage the crisis through diplomacy."

Hydrogen shift Although the necessary sums for carbon transition look daunting the paybacks would recur for decades ➜ LEX

Companies & Markets

Valneva jab yields stronger response than AstraZeneca's

- Group's shares soar 43% on trial data
- UK cancelled €1.4bn deal last month

HANNAH KUCHLER, SARAH NEVILLE, JIM PICKARD AND DONATO PAOLO MANCINI — LONDON

Valneva's Covid-19 vaccine elicits a stronger immune response with far fewer side effects than the Oxford/AstraZeneca jab, according to trial results published a month after the UK terminated a €1.4bn deal with the French vaccine maker.

The first data from the phase 3 trial showed that participants who were given the Valneva vaccine had more neutralising antibodies than those who received the AstraZeneca shot.

The strong results have renewed concerns about whether the UK government should have abandoned the contract, which was also designed to bolster domestic production capacity for future pandemics. At the time, people familiar with data from a separate trial to assess booster doses said that Valneva's jab had performed less well than others.

'It has come out as superior on all parameters, [so] there's no reason to believe that it won't get approved'

The results of that trial, called Cov-Boost, are yet to be published.

About four-fifths of people aged over 12 in the UK have received a complete course of vaccination. The UK is likely to focus only on shots whose utility in boosting has been demonstrated. But Clive Dix, ex-interim head of the vaccine task force, said it had been "very dangerous" to extrapolate from Cov-Boost to assess the jab's overall performance. "It has come out as superior [to AstraZeneca] on all parameters, which means there's no reason to believe that the vaccine won't get approved," he said.

Shares in Valneva rose 43 per cent yesterday. They fell 42 per cent in one day last month after the UK government said that it was ending its agreement to purchase at least 100m doses of the vaccine. Westminster said it had terminated the contract for "commercial reasons". Valneva would not comment.

Ministers have been accused of failing to give an adequate explanation for why they cancelled the contract. Sajid Javid, the health secretary, originally told the House of Commons that the vaccine would not receive regulatory approval. But Javid was forced to correct the ministerial record, explaining that he had meant to say the vaccine had not yet won approval. That prompted Dix to call for Javid's resignation.

Valneva has begun a rolling submission to the UK's Medicines and Healthcare products Regulatory Agency and is preparing to start the application procedure for conditional approval in the EU.

Thomas Lingelbach, Valneva's chief executive, pointed out a flaw in the Cov-Boost trial, saying it boosts "very early", after two-and-a-half to three months. Valneva would be running its own trial in "real booster settings", when people's antibody response has significantly waned, he said.

Adam Finn, professor of paediatrics at the University of Bristol and trial chief investigator, said that it would be hard to assess the Cov-Boost results when published because we do not know "how boosting influences effectiveness".

The trial of more than 4,600 people was smaller and designed differently than the previous phase 3 studies. The trial compared antibody levels with those elicited by the AstraZeneca vaccine, rather than producing an overall efficacy rate, based on the numbers who became sick.

There were no severe cases of Covid-19 in either group.

Driving ambition Volvo sets its sights on $23bn valuation in share listing next week

Electric dreams: Volvo plans to use money raised in the IPO to fund its push to go all-electric — Mikael Sjoberg/Bloomberg

RICHARD MILNE
NORDIC AND BALTIC CORRESPONDENT

Volvo Cars will list its shares next week in an offering that could value the company at up to $23bn.

The Swedish carmaker is expecting to raise up to SKr34bn ($3.9bn), with its shares due to start trading on October 28.

Volvo will have a free float of 17-21 per cent and will continue to be controlled by Chinese carmaker Zhejiang Geely, which currently owns 98 per cent of the shares and is set to retain 97 per cent of the voting rights even after the offering.

Hakan Samuelsson, Volvo chief executive, said the company would use most of the proceeds to fund its push to sell only electric vehicles by the end of this decade, while a smaller part would boost its manufacturing capacity and ability to sell cars directly to customers. "As a listed company, our ambition must combine becoming our industry's fastest transformer and creating value for our shareholders," he added.

The turnround of Volvo, which was sold by Ford to Geely in 2010 for $1.8bn, is a big success story for Chinese ownership. But the listing comes as tensions grow between China and the US and parts of Europe. A previous listing in 2018 was shelved because of fears that a trade war between China and the US could hurt its ability to reach the $30bn valuation Geely believed it merited.

Volvo's IPO is set to be priced at SKr53-SKr68 per share, giving it a market capitalisation of SKr163bn-SKr200bn ($19bn-$23bn). Polestar, the lossmaking electric car brand half-owned by Volvo that sold only 10,000 vehicles last year, is set to list in 2022 through a special purpose acquisition company at a valuation of $20bn.

People close to Volvo suggested it was pricing its offering carefully to ensure upside for new investors. Volvo said it had secured backing from several Nordic pension funds and asset managers as cornerstone investors for about SKr6.4bn of the offering. Current minority owners AMF and Folksam will convert their preference shares into normal shares, contributing SKr5.3bn to the IPO.

Volvo has long lagged behind larger premium carmakers such as Audi, BMW and Mercedes-Benz in terms of sales and profit margins. The Swedish group sold about 740,000 cars in the year to the end of September, less than half the level of its German rivals. But it aims to sell 1.2m by the middle of this decade.

Critical to its success will be its switch to electric cars. Volvo said in June it would build a battery gigafactory with Swedish start-up Northvolt to produce enough electric packs to power 500,000 cars a year from 2026.

UK ministers launch probe into Meggitt takeover plan

SYLVIA PFEIFER — LONDON

The British government has opened an investigation into the planned £6.3bn takeover of Meggitt, the aerospace and defence group, by a US rival, citing national security concerns.

Kwasi Kwarteng, business secretary, yesterday issued an "intervention notice" after reviewing advice from officials about the impact of Parker Hannifin of the US buying the Coventry-based group.

Meggitt is one of the few remaining UK-headquartered civil aerospace and defence groups and is considered by the government a "critical supplier" to contractors such as BAE and Rolls-Royce.

Kwarteng had previously signalled that the government was taking an "active interest" in the deal.

It is the second time in three months that the business secretary has intervened in a foreign takeover of an aerospace and defence group, underlining the government's concern over buyers targeting UK specialists. In August Kwarteng opened a probe into a takeover of Ultra Electronics by Cobham, owned by US private equity group Advent International.

Under the Enterprise Act 2002, the business secretary can intervene in mergers and takeovers on grounds of national security, financial stability and media plurality. The CMA has until March 18 next year to report back to Kwarteng.

Tom Williams, chief executive and chair of Parker Hannifin, said last month that the group was open to talking to ministers to ease concerns over the impact of the deal on Meggitt's workforce and R&D.

The US group, whose takeover was overwhelmingly backed by Meggitt investors last month, had agreed to make a number of legally binding commitments, including to at least maintain R&D spending at the UK company for the next five years. Other pledges, including to maintain tech and manufacturing in the UK, would expire after 12 months.

MPs and unions have warned that the UK risks losing control of assets that are crucial to the armed services.

Parker Hannifin said it looked forward to "engaging with the UK government" and "bringing the review of the transaction to a satisfactory conclusion". It still expected the deal to close in the third quarter of next year.

Windfall looms for hedge funds after controversial bet on Claire's

INSIDE BUSINESS
FINANCE
Sujeet Indap

Physical retailers have struggled to stay afloat in recent years. But a fearsome hedge fund's bet both on a children's chain store, and its own bare-knuckled financial engineering, may be about to pay off.

In 2018, Claire's Stores filed for Chapter 11 protection in a US federal court citing $2bn of debt against just $200m of annual operating cash flow. Acquired in 2007 by Apollo Global Management for $3bn, Claire's joined the long list of physical retailers that succumbed to excess debt in the age of ecommerce.

Yet, after fixing its balance sheet three years ago, its core business of selling trinkets as well as ear-piercing services has demonstrated recent resilience.

The company recently filed a preliminary prospectus to go public amid an initial public offering boom. Should the listing get done, a juicy windfall awaits Elliott Management and Monarch Alternative Capital, the ace hedge funds that are Claire's largest shareholders today.

The duo's distressed-debt masterstroke that left them in control was controversial at the time and deserves scrutiny today as their windfall could soon be crystallised. Among warring factions in a complex bankruptcy there is one fail-safe way to outmuscle rival creditors: put up hard cash to fund a company's resurrection. The price paid by Apollo a decade before was well above the $1.4bn enterprise value that an investment banker in the 2018 legal proceedings had put on Claire's.

Concurrent with the Chapter 11 filing, Apollo had struck a restructuring plan with senior creditors, led by Elliott and Monarch, that would transfer the equity of the new, streamlined, Claire's to the two hedge funds. At the same time, the senior creditor group would also get the chance to buy further into the new company through a $250m investment of preferred stock, equity with more assured dividend rights.

Injecting new capital is inherently risky with a company that has just succumbed to bankruptcy. But the terms secured by Elliott and Monarch — whose group had accumulated a majority of Claire's "first-lien" debt — made it worth their while.

Elliott Management has deployed the preferred stock manoeuvre in other bankruptcies such as Peabody Energy's

The preferred stock accrued a 14 per cent annual dividend paid in-kind — that is, in the form of new equity. Moreover, the deal to transfer the preferred equity was struck at a 37.5 per cent discount to Claire's mooted restructuring value.

The preferred stock has a 20-year maturity and requires a so-called "make whole" payment to compensate holders if the instrument was redeemed early. Separately, the Elliott group was paid nearly $40m in fees for its trouble.

The preliminary IPO prospectus does yet not disclose the precise amounts Elliott and Monarch will own of Claire's.

But the filing does offer a clue on just how juicy the 2018 preferred stock deal is. Claire's is carrying roughly $500m in bank-loan debt. But its financial statements note a whopping $429m liability representing the cost to buy out the preferred stock.

Elliott, to great controversy, has deployed the preferred stock manoeuvre in other bankruptcies including those of Peabody Energy and Caesars Entertainment.

In those deals, other creditors complained, unsuccessfully, that Paul Singer's fund had secured unnecessary sweetheart terms on its investment that took value from other stakeholders.

The Claire's takeover featured similar dissent. The powerhouse Oaktree Capital Management had been a longtime Claire's junior bondholder. It complained in court that the fix was in for the Elliott group even prior to the bankruptcy filing. Oaktree pleaded that the bankruptcy process had ignored its allegations of asset stripping at Claire's prior to the Chapter 11 case.

Additionally, Oaktree said Claire's had lowballed its valuation, failed to search earnestly for a third-party buyer for the business and then accepted an expensive Elliott financing package that was "severely" out of line with the market. It went as far to describe the machinations as "possibly improper or immoral", according to court papers.

Oaktree's own bid for Claire's never materialised but it did secure a few more nickels on the dollar of recoveries on its bond holding.

Based on its current operating profits, the enterprise value of Claire's could now approach $2.5bn. Such value creation ordinarily goes to all the stakeholders who stayed with a business and squeezed blood out of what was previously a stone. Elliott has proven, again and again, that it knows how to get that little bit extra.

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Financials

Goldman gains autonomy in China

US group plans to expand after Beijing approves full ownership of joint venture

TABBY KINDER — HONG KONG

Goldman Sachs has received regulatory approval to take full ownership of its securities joint venture in China, allowing the investment bank to expand in the country as Beijing eases restrictions on foreign firms in its finance industry.

The green light from the China Securities Regulatory Commission "will enable us to position our firm for long-term growth and success in this market under one wholly owned entity", the bank said in an internal memo. "This marks the start of a new chapter for our China business following a successful 17-year joint venture."

The approval also comes as many US financial groups seek to take advantage of increasing market access in China despite concerns about the political and regulatory climate in the country and slowing economic growth.

A person close to Goldman called the go-ahead a "milestone". It will allow the bank to trade as Goldman Sachs in China and inject capital, personnel and technology into its operations there.

Goldman applied to take full control of the joint venture, called Goldman Sachs Gao Hua Securities, in December 2020 after Beijing introduced rules permitting investment banks to own 100 per cent of their local operations for the first time.

> The decision allows the bank to trade under its name and inject capital, personnel and technology

Goldman had controlled 51 per cent of the business, which was the first of its kind in China when it was launched in 2004. It is now the second US bank to gain full ownership of its Chinese entity, after JPMorgan Chase in August.

Wall Street's biggest banks rushed to boost their presence in China when the country started to open up its financial sector to foreign investment. That shift has gathered pace in the past two years despite escalating geopolitical tension between Beijing and Washington.

Last year, Beijing unveiled government reforms that encouraged financial liberalisation, including expanding foreign access to futures markets.

Goldman has outlined an ambitious growth strategy in China that involves doubling its workforce to 600 and expanding its wealth and asset management businesses, including launching a wealth joint venture with China's biggest bank, ICBC.

However, it has faced a problem after acting as lead underwriter of the calamitous initial public offering of Didi Chuxing in New York in June.

Chinese regulators accused the ride-hailing app of security breaches two days after its listing, wiping almost 50 per cent from its shares and prompting class-action lawsuits from investors against the company and its advisers.

Listings of big Chinese technology companies in the US — previously a lucrative trade for Wall Street banks — have since been effectively frozen, while global investors have been blindsided by a series of regulatory shocks from Beijing targeting sectors from online education to gaming.

Automobiles. Assembly plants

Ford turns Tennessee into an electric powerhouse

Plans for Blue Oval City cast light on US battle to cash in on new wave of manufacturing

CLAIRE BUSHEY — CHICAGO

Cotton and soyabeans grow in the west Tennessee fields where, in four years, Ford plans to make electric trucks.

Last month Ford and its partner SK Innovation said they would invest $11bn to build an electric vehicle assembly plant, battery factory and supplier park on the farmland 50 miles north-east of Memphis, plus two battery plants in neighbouring Kentucky.

The billions of dollars to be invested highlight the economic stakes for communities as the car industry commits to massive spending to switch away from assembling petrol-powered vehicles.

US towns, states and regions are vying to lure new electric vehicle plants. Ford's Tennessee complex, to be dubbed Blue Oval City, will rise in an area that Haywood County mayor David Livingston said had been haemorrhaging population since the second world war.

"EVs are the wave of the future," Livingston said. "I felt like I was on third base in the 1960 World Series when Bill Mazeroski hit a grand slam, that's how ecstatic I am."

The car industry is critical to the US economy. It accounted for 3 per cent of gross domestic product last year and employed more than 900,000 people in manufacturing vehicles and parts with another 200,000 in sales. Average annual pay is $84,000, $20,000 more than the average for all US industries.

But the spoils are not evenly distributed. Carmakers and their supply chains have historically been clustered in the Midwest, starting with Henry Ford cranking out Model Ts in south-east Michigan.

The economic benefits began to spread more widely in the 1970s and 1980s as US carmakers opened factories in southern states. Japanese and German manufacturers followed suit. Today, Kentucky, Tennessee and Alabama — the southern sections of an "auto alley" that runs from Michigan — all boast healthy car manufacturing sectors.

With electrification now rolling across the industry, cities and states are competing to either preserve their share of the economic benefits, or win a bigger piece of the pie. A Michigan council formed by Governor Gretchen Whitmer said in a 2020 report that while the state remained a global leader in electric and autonomous vehicle technology, "the margin of our lead has been closing". Detroit's title of Motor City is one that rivals would love to steal. Tennessee offered Ford $500m in incentives, while Kentucky officials expect the company to apply for $286m in forgivable loans and skills training. And the states that lost out on Ford's new factories were "soul searching" right now, said Brett Smith, technology director at the Center for Automotive Research, or CAR.

"Those were two very, very large investments," he said, referring to the sites in Tennessee and Kentucky. "They're hard to go to your boss and say, 'Hey, we weren't in the game'. And there were several that weren't in the game."

Ford's decision will increase to four the number of plants building electric vehicles in Tennessee. Nissan has built its Leaf car there since 2017, Volkswagen plans to make the ID. 4 electric sport utility vehicle in Chattanooga and General Motors said last year it would spend $2bn to retool its Spring Hill plant.

Grand design: an artist's impression of Blue Oval City, the car plant planned by Ford and SK Innovation 50 miles north-east of Memphis, Tennessee
Ford Motor Company via Reuters

> Carmakers calculate 'that they have land, decent costs, their workforce and their supply chain'

Kristin Dziczek, the CAR's senior vice-president of research, said carmakers' location calculations appeared to be "that they have land, decent costs, their workforce and their supply chain" as they decided where to build EVs.

Large, "shovel-ready" sites are important. Tennessee officials from the public and private sectors began piecing together the 4,200-acre "mega site" that Ford eventually chose almost two decades ago, buying land from 26 owners.

Lisa Drake, Ford's chief operating officer for North America, said the company selected Tennessee and Kentucky because of their proximity to other Ford factories and suppliers, access to sustainable energy and lower construction and operating expenses, which "are very critical . . . to keep battery cell costs low".

Electricity for industry costs 7.2 cents a kilowatt-hour in Michigan, compared with about 5.3 cents in Kentucky and Tennessee, according to the US Energy Information Administration. The federally owned Tennessee Valley Authority generates a majority of the state's power using nuclear and hydro resources, a draw for carmakers wanting to cut emissions from manufacturing processes along with their products.

Industry observers note that the TVA has given Tennessee an edge in other ways. Several years ago authority officials began courting overseas battery makers. Now, in a state that in 2018 had fewer than one electric vehicle registration for every 1,000 people, they are helping to build a network of fast-charging stations every 50 miles along Tennessee's big highways.

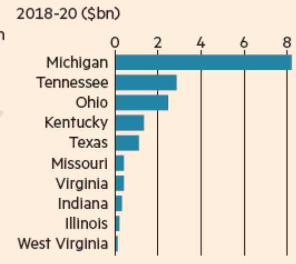
But headline-grabbing greenfield investments such as Ford's obscure just how much companies have spent to update their Midwestern bastions for electric vehicles. CAR data show that between 2018 and 2020, carmakers invested more than $8bn in Michigan in EVs and autonomous vehicles. Ohio received $2.5bn and Indiana $304m.

The CAR estimates that by the end of the decade the northern Midwest will manufacture a significant chunk of America's electric vehicles, with three states — Michigan, Ohio and Indiana — sending out 30 per cent of them. While the US south will produce 45 per cent of EVs, that manufacturing footprint will cover eight states.

Meanwhile, the mayor of Haywood County, Tennessee, is making plans for new water and sewer lines to serve the Ford complex and the businesses and residents expected to spring up around it. "It's almost inconceivable to most of the locals exactly what's going to happen," Livingston said. "I tell them Detroit has moved to west Tennessee."

The auto alley from Michigan to Alabama
Employment in the car industry, 2018 (by economic area)

States with the most electric and autonomous vehicle investment from carmakers
2018-20 ($bn)



Sources: US Cluster Mapping Project; Center for Automotive Research

Healthcare

Philips chief denies design error despite recall of 3.5m respirators

HARRY DEMPSEY

The boss of Philips has said there was "no mistake in the design" of respiratory devices subject to a vast product recall, as he acknowledged that millions more machines with the same faulty part have been in use beyond those summoned back for replacement by the manufacturer.

The Dutch group is recalling about 3.5m devices primarily used to assist the breathing of patients suffering from sleep apnoea, after detecting a faulty component in April.

The devices use a foam that can degrade and become toxic, putting investors on edge for a worst-case scenario of costly litigation reaching into billions of euros if the fault is linked to cancer. Thousands of patients believe they may have been harmed by inhaling particles or toxic chemicals.

But Frans van Houten, chief executive, told the Financial Times yesterday that the company had used the polyurethane foam in its respiratory devices for decades — meaning more than 10m had used the foam — arguing these met regulations at the time of production.

"We've been designing and producing ventilators for 10 to 20 years and we have been using this kind of foam forever. It was fully qualified by the rules, regulations and standards at the time," he said.

> 'The patient suffers and we very much feel for that. Apologies are due to patients'

The devices are being tested to establish which compounds they release, the toxicity of those compounds and whether they cause cancer.

Philips is only replacing devices still in use within their lifetime, which is about five years in the US and longer elsewhere, at an estimated cost of €500m.

A wave of class-action suits has been launched against the company in the US. Philips said it was "unable to reliably estimate" any legal liabilities.

However a wider pool of affected devices could increase the number of litigants should tests reveal that they harm patients.

Van Houten's comments came as the group trimmed its annual outlook for sales growth to low single digits and a "modest" profit margin improvement, citing the device recall as well as a host of supply-chain snags from semiconductor shortages to shipping bottlenecks.

Sales slipped 7.6 per cent year on year to €4.2bn in the third quarter, with supply-chain pressures expected to spill over into 2022, Van Houten said.

Philips cited a complaint rate of 0.03 per cent of users based on 2020 data at the time of the recall, but more have since been received.

"People will respond to [the recall] and say 'I want to put in my own complaint.' We've had a few thousand more than originally," Van Houten said.

He said he had the full backing of the board: "The products were approved by the regulators. There was no mistake in the design of the product."

He added that "the patient suffers and we very much feel for that. Apologies are due to patients".

The group has so far produced 750,000 repair and replacement kits, of which a third have reached users, but supply-chain issues mean that millions of devices cannot be replaced quickly.

Media

Biden era's relative calm sees US cable news networks lose primetime viewers and profit

ANNA NICOLAOU AND CAITLIN GILBERT
NEW YORK

As the news cycle has calmed under Joe Biden's presidency and the pandemic has eased, US media groups have suffered dramatic audience declines, with primetime ratings for cable television news networks CNN and MSNBC falling more than 50 per cent in the third quarter compared with a year ago.

Last year's cocktail of Donald Trump, a deadly pandemic, the US presidential election and historic racial protests drove a record interest in following the news — propelling cable TV channels, newspapers and other journalistic enterprises to soaring heights of viewership and revenue.

Now these groups face an equally breathtaking fall back down to earth.

Primetime ratings for AT&T-owned CNN dropped 52 per cent in the third quarter for viewers aged 25 to 54, a key demographic for advertisers, according to Nielsen figures.

MSNBC, the left-leaning network owned by Comcast's NBCUniversal, suffered a 51 per cent fall, while Rupert Murdoch's rightwing Fox News faired comparatively better, with primetime ratings falling 37 per cent during the quarter for this demographic.

"This is uncharted waters after the Trump bump," said Ken Doctor, founder of a California news start-up, Lookout. "It's highly unlikely we will see another bump like that over the next 10 years."

At this time last year, Trump was providing around the clock drama. Americans faced another grim wave of the pandemic as the weather cooled with no Covid-19 vaccine in sight. Protests had raged across the US all summer, while many workers were cooped up at home rather than at the office. Whether they sought the comforts of Fox's Tucker Carlson or MSNBC's Rachel Maddow, Americans across the political spectrum were glued to their screens.

The Biden era has been much calmer, while wide access to vaccines has helped to temper deaths from coronavirus.

Lachlan Murdoch, Fox Corporation chief executive, had told investors that this year's decline was expected.

"We are now seeing expected audience pullback since the election," he said in February, which was "consistent with prior election cycles". He added: "We fully expect that news audiences will normalise and Fox News will continue to dominate."

But the Trump era had kept Americans captivated by the news even after his 2016 election win, defying typical trends. Primetime ratings for Fox News for adults aged 25 to 54 fell only 5 per cent in the third quarter of 2017, compared with 2016. CNN ratings also lost 5 per cent, while MSNBC rose 29 per cent as the network of opposition to Trump.

This year's smaller audience holds financial consequences for these groups. Kagan, part of S&P Market Intelligence, estimates that MSNBC net operating revenue will fall from $1.1bn last year to $940m this year, while Fox News will drop from $3.1bn to $2.8bn.

CNN and rivals had experienced a 'Trump bump' during his presidency

The fallout is not limited to TV. The New York Times in the first half of this year added 443,000 digital subscribers, a steep slowdown from the 1.2m added in the first half of 2020.

Meredith Kopit Levien, New York Times chief executive, told investors in May that the news cycles of the past five years had fuelled "unprecedented demand for Times journalism". But she added that "we are very confident that there is still wide interest in the news".

Julie Pace, executive editor of the Associated Press, said the end of the Trump era "gives us a chance to not be pingponging between the controversies of the day in Washington".

"It draws eyeballs, but it blocked out the sun in some ways", said Pace, who had been the news agency's Washington bureau chief during the Trump administration.

After riding high under Trump, news companies face wider questions over the future, particularly as audiences shift away from traditional TV and print media and towards digital.

"Presidential politics certainly can catalyse a lot of viewing, as can any ongoing drama, and you had both of those last year," said Brian Wieser, president of business intelligence at the ad agency GroupM. "But [TV] viewing will continue to decline at a pretty rapid clip [due to cord-cutting]. So four years from now, total [TV] viewers will be 15-20 per cent lower."

Doctor views the correction as a warning to the industry, saying: "It's clear that news companies of all sizes, national, locally and globally, can't depend on explosive news cycles to model their business on."

COMPANIES & MARKETS

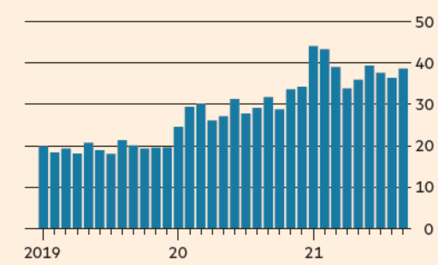
Trading apps ponder signs of 'waning interest'

Covid-led boom in activity shows indications of ebbing but many brokerages are sanguine on further retail enthusiasm

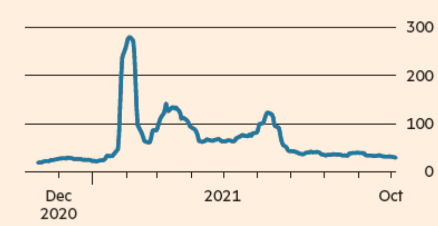
JOSHUA OLIVER — LONDON
MADISON DARBYSHIRE — NEW YORK

Losses on cinema chain AMC during the meme frenzy were a reminder that ability to trade instantly is a double-edged sword. Retail brokerage Robinhood, co-founded by Vlad Tenev, below, staged a $32bn Wall Street debut
Evan Agostini/Invision/AP; Spencer Platt/Getty Images

US options trading stays high
Average daily volumes above pre-Covid levels (m)



Reddit stocks discussion slumps
Traders lose interest in WallStreetBets and other forums, comments ('000)



Total daily discussion comments across selected stock-trading Reddit forums identified by Quiver Quantitative
Sources: Options Clearing Corporation; Quiver Quantitative

Kristine Licuanan lasted less than 24 hours as a day trader.

Locked down in London, the 37-year-old in January snapped up £200 of shares in video-game retailer GameStop and cinema chain AMC, unloved stocks catapulted to records in a frenzy that convulsed the US stock market earlier this year.

"I couldn't stomach the volatility," said Licuanan, recalling the stress of checking her phone to track where the shares were trading, before selling them at a loss only hours after buying them.

The consultant was one of an army of people who either began trading or did more during the pandemic, a wave of interest that turned retail brokerages into moneymaking machines and helped pave the way for the best known, Robinhood, to cash in with a $32bn initial public offering in July.

In the UK, customers opened 7.1m investing accounts in the first 12 months of the pandemic, figures from the Financial Conduct Authority show. In the US, more than 30m new accounts were started in the same period, according to data provider BrokerChooser.

But with lockdowns lifted, the question confronting platforms such as Robinhood and ETrade in the US, or CMC Markets in London, is whether any of the surge in trading by retail investors can outlast the virus crisis.

There were signs that the cohort of thrill-seeking traders, who chased volatility in everything from tech to turbocharged stocks such as GameStop to crypto, had stepped back, analysts said.

"At some point you run out of shiny new objects," said Liz Ann Sonders, chief investment strategist at Charles Schwab. She pointed to "waning interest" in speculative bets on meme stocks, which were targeted by traders on Reddit, a forum valued at $10bn in August.

Charles Schwab, the largest retail brokerage in the US, last week reported an 8 per cent drop in trading activity in the third quarter from the second.

Discussions among traders on Reddit forums such as WallStreetBets, used by some to co-ordinate buying during the meme-stock explosion in the early part of the year, has declined since June, according to alternative-data provider Quiver Quantitative.

Those platforms that have revealed a slowdown in activity have been punished.

Shares in UK-based Hargreaves Lansdown fell 10 per cent in a day in August after a warning that the pandemic trading boom would not last.

CMC, whose pre-tax profits more than doubled to £224m in the year to March, lost a quarter of its value in a day last month after a sobering message.

Morgan Stanley, which acquired ETrade for $13bn in late 2020, last week reported that the volume of daily average trades from its wealth management unit fell below 1m for the first time since the deal.

No one in the industry believed the meteoric growth in new customers and revenues during the pandemic was sustainable.

Robinhood, whose revenues more than doubled to $451m in the second quarter, conceded as much in the run-up to its IPO, saying: "We expect the growth rates in revenue . . . to decline in future periods, and such declines could be significant."

For a historically cyclical industry, "the middle of July to August was a reminder that people do get up from their desks," said Dan Pipitone, chief executive of US brokerage TradeZero. "Trading volumes just stopped going up and, for 16 or 17 months, that had been the case."

Nonetheless, few fear that all those who started trading in the shadow of coronavirus, a group that extends beyond those swept up in the meme-stock mania, will simply vanish.

"We'll look back on this time as a revolution in the balance of power in investing, away from major institutions towards the everyday investor," said Yoni Assia, chief executive of eToro, an Israeli cryptocurrency and stock trading app.

JPMorgan estimates that retail investors account for about 20 per cent of total trading volumes in the US. While that is down from between 25 per cent and 30 per cent during the first two months of the year, it is higher than the 10 per cent to 15 per cent range before the pandemic.

"Retail investors are a force not just in gross terms, but directionally they're turning out to still be a powerful force of buying today," said Peng Cheng, a global quantitative and derivatives strategist at JPMorgan.

Trading in options, favoured by some retail traders as a way to supercharge their bets, has remained elevated. The average daily volume of options trading in the third quarter was almost twice the 2019 average, though down from a peak in the early part of the year, according to data from the Options Clearing Corporation.

Richard Wilson, chief executive of Interactive Investor, a UK trading platform that is exploring an initial public offering, said that volumes showed early signs of settling at a "pre-Covid plus" level. That had emboldened some to believe that lockdown retail traders and investors could be converted into life-long customers.

"There is an assumption that it's just lockdown on its own," Wilson said. But Covid-19 only "accelerated underlying long-term drivers", including improved tech, falling trading costs and low interest rates, that were already pushing more individuals to trade and invest for themselves.

> 'No matter how you slice it, you are at or near all-time high levels. That's a risk factor'

> 'If you know how to buy an appliance or a laptop, you probably know how to buy a stock'

While brokerages and platforms are confident that their feast will not turn to famine, there are dangers.

As higher inflation increases the chances that central banks will unwind stimulus, there is a fear that a sudden drop in equities could scar new retail traders and investors who might have become too blasé about the risks.

According to Sonders at Charles Schwab, those concerns are amplified because heavy participation by retail investors has historically come before periods of poor market performance.

"If you just look at households and exposure to equities, no matter how you slice it, you are at or near all-time high levels. That's a risk factor looking ahead."

But for Chris Hill, chief executive of Hargreaves Lansdown, the hope was that those who might have started out trading a single stock would turn into investors willing to build a diversified portfolio over time. "Long-term investing is what helps you see out the ups and downs of the market."

The £7bn group said last week that its trading volumes fell 12 per cent in the third quarter from the second quarter, but remained higher than a year ago.

If there is encouragement to be drawn from the case of Licuanan, who still trades several times each month, there is concern for an industry that has drawn political scrutiny over whether it is encouraging novice traders to make reckless bets.

"We have to break the stigma that the stock market is only for the geniuses," she said. "If you know how to buy an appliance or a laptop, you probably know how to buy a stock."

Licuanan pointed to the contrast with her father having to call a stockbroker to place trades.

But losses on GameStop and AMC during the meme-stock frenzy were a reminder that the ability to trade instantly was "a double-edged sword", she said. "What was I thinking?"

Automobiles

Toyota and Stellantis to build US battery plants

KANA INAGAKI — TOKYO

Toyota and Stellantis, owner of Peugeot, have unveiled separate plans to build battery plants in the US as the largest carmakers target tens of billions of dollars of investment over the next decade to electrify fleets.

The Japanese carmaker yesterday said it would invest roughly $3.4bn through to 2030 to manufacture car batteries in the US, partly including $1.3bn to build its first US battery plant with its trading arm Toyota Tsusho that would create 1,750 jobs.

The spending is part of the $13.6bn it has set aside for battery development and supply over the next decade as the maker of the Prius hybrid addresses investor pressure to clarify its electric vehicle ambitions.

Separately, Stellantis said it had reached a preliminary deal for a joint venture with LG Energy Solution, the battery unit that was spun out of South Korea's LG Chem, to build a plant in the US to produce battery cells and modules for North America.

The group, formed by the merger of France's PSA and Fiat Chrysler this year, did not disclose the size of its investment, but it is part of its €30bn spending programme over the next four years to develop electric vehicles.

> Carmakers are scrambling to meet Biden's call for electric vehicles to account for half of sales by 2030

In July, the company said that it planned to open five battery factories across Europe and the US by the end of the decade.

The US plant is expected to start production by the first quarter of 2025 with annual production capacity of 40 gigawatt hours.

The rush to increase EV production comes as carmakers scramble to meet Joe Biden's call for electric vehicles to account for half of sales by 2030.

In the US, battery-powered vehicles comprise 2 per cent of the market. Tesla dominates sales.

Ford committed last month to spending $11bn alongside Korea's SK Innovation to build four plants in Kentucky and Tennessee to supply batteries and vehicles.

Toyota is spending much less than rivals and taking a different strategy. with its focus on developing batteries internally.

The group has argued that a longer-term fix for global warming should be a mix of hybrids, EVs and hydrogen-powered vehicles rather than a single bet on battery-powered cars.

But it has also acknowledged the need to step up its EV plans, saying it will launch 15 models by 2025. It plans to sell 8m electrified vehicles by 2030.

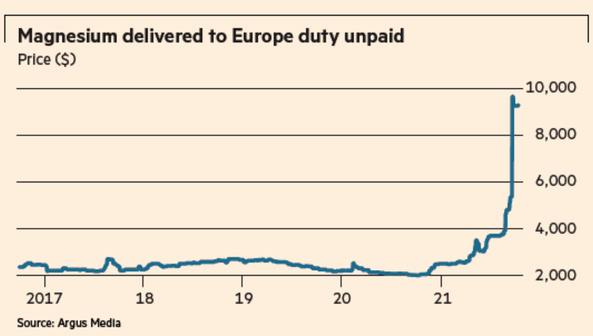
Commodities. Power crisis

China's magnesium shortage threatens global car industry

Critical roll: an aluminium plant in Huaibei. China's energy problems are affecting output
China Out/STR/AFP/Getty

Production curbs have hurt stockpiles of key ingredient to make aluminium in vehicles

NEIL HUME
NATURAL RESOURCES EDITOR



The world's largest carmakers could face a potentially crippling shortage of aluminium as China's power crisis threatens supplies of a key component used to make the lightweight metal.

Magnesium is an essential raw material for the production of aluminium alloys, which are used in parts from gearboxes to steering columns, seat frames and fuel tank covers.

Owing to production curbs in China, which has a near monopoly on the 1.2m tonne a year magnesium market, stockpiles of the metal are running dangerously low across Europe.

"There are no substitutes for magnesium in aluminium sheet and billet production," said Barclays analyst Amos Fletcher. "Thirty-five per cent of downstream demand for magnesium is auto sheet — so if magnesium supply stops, the entire auto industry will potentially be forced to stop."

Canadian metals company Matalco reportedly told its clients last week that magnesium availability had "dried up" and if the scarcity persisted it would have to curtail output of aluminium billet next year.

The warning from Matalco shows how the power crisis in China is affecting global supply chains, driving up the price of key industrial materials and fuelling concerns about inflation.

While a shortage of semiconductors has been the main issue facing the automotive industry this year, the focus is now shifting to magnesium, which increases the strength of aluminium when added as an alloying agent.

"A magnesium shortage could trigger a shortage of [usable] aluminium, which in turn could also hit car production," said analysts at BofA Securities in a report. "We stress at this point that such a scenario is not yet included in our estimates. The issue has just emerged and no carmaker has yet warned about it."

Almost 90 per cent of the world's magnesium production comes from China, and a large chunk of it from one town in Shaanxi province, Yulin.

About a month ago, the local government ordered around 35 of its 50 magnesium smelters to close until the end of the year and told the rest to cut production by 50 per cent in order to hit energy consumption targets.

To produce one tonne of magnesium takes 35-40 megawatt hours of power, versus aluminium at 16 MHW, according to BoA Securities.

As the metal is difficult to store — it starts to oxidise after three months — stocks could run critically low before the end of the year if China does not crank up production.

This has been reflected in prices with magnesium imported in Europe surging by 75 per cent over the past month to a record high above $9,000 a tonne, according to Argus Media, a price assessment company.

In a statement issued this month, WV Metalle, Germany's non-ferrous metal trade association, called on its government to initiate diplomatic talks urgently with China.

"It is expected that the current magnesium reserves in Germany and throughout Europe will be exhausted in a few weeks at the end of November 2021 at the latest," the statement said. "In the event of a supply bottleneck of this magnitude, there is a risk of massive production losses."

Other industry groups have also raised the alarm. European Aluminium, whose members include Norsk Hydro, Rio Tinto and Alcoa, asked the EU and national governments to work urgently towards immediate actions with their Chinese counterparties.

It fears China will now direct the remaining production to its vast domestic aluminium industry.

"The current magnesium supply shortage is a clear example of the risk the EU is taking by making its domestic economy dependent on Chinese imports," EA said in a statement. "The EU's industrial metals strategy must be strengthened."

European companies including Norsk Hydro used to produce magnesium but stopped because they could not compete with lower costs at Chinese producers.

> 'If supply of magnesium stops, the entire auto industry will potentially be forced to stop'

Unlike Europe, North America does boast one large domestic producer of metal, US Magnesium, which was offering a degree of protection, said Stephen William, research manager at commodities consultancy CRU. "Aluminium producers in North America are also working their scrap supply chains very aggressively to make up for whatever raw magnesium they are not able to source."

The key question now is whether magnesium production in China will restart before the end of the year.

Given the importance of aluminium to China's manufacturing sector, it is reasonable to assume that resumption is imminent. "But this is a risk worth watching carefully," Fletcher said.

Inventories are currently low across a number of metals. This is especially true of copper, where stocks available on the London Metal Exchange sunk to the lowest level since 1974 last Friday after a surge of orders.

Copper rose 10 per cent last week and yesterday reached $10,400, not far from its record price of $10,747 hit in May.

Over the past month, copper not already earmarked for withdrawal from LME warehouses has plunged to just over 21,000 tonnes.

Putting that figure into perspective, about 25m tonnes of refined copper is consumed annually. In China, copper stocks on the Shanghai futures exchange have fallen to the lowest level since 2009.

For the LME, the world's biggest marketplace for industrial metals, dwindling copper stocks could present a problem because the exchange runs a contract that is settled physically if it is not closed out.

"While some metal may make its way into the warehouse system, there may not be any immediate remedy, beyond perhaps a global economic slowdown," said Michael Widmer, commodities strategist at BofA Securities.

Crypto

France tests digital assets in series of government bond deals

PHILIP STAFFORD

France has used digital assets and blockchain technology in a series of bond transactions, marking one of the most significant trials to date of cryptocurrencies in a major established market.

A consortium of France's biggest financial market participants utilised a digital currency issued by the Banque de France as part of the 10-month experiment in the country's debt market.

The trial was led by the securities depository Euroclear and included many of France's largest banks, as well as the French public debt office and the central bank, and used a system developed by US-based IBM.

The pilot is part of a scheme commissioned by the Banque de France in March last year to explore how central bank-issued digital currencies would exchange and settle if they had been turned into tokens, with deals recorded on a digital ledger.

Typically deals are reconciled between parties, recorded and assets transferred at a single authority like a central bank or securities depository.

It comes as global regulators are urging central banks to act in the face of the growth this year in crypto assets.

> 'We have together successfully been able to measure the inherent benefits of this technology'

Policymakers are worried that private sector initiatives around payments and cryptocurrency issuance could lead to central banks losing control of monetary policy.

The consortium included BNP Paribas, Crédit Agricole CIB, HSBC, and Société Générale. The groups traded the government bonds as securities "tokens" and settled them with cryptocurrencies supplied by the central bank.

The project tested the usefulness of a central bank currency on a range of everyday activities, such as issuing new bonds, using them in repurchase agreements, as well as paying coupons and redeeming deals.

The experiment ran nearly 500 instructions in both primary and secondary markets. Euroclear declined to disclose the value of the trades.

"We have together successfully been able to measure the inherent benefits of this technology, concluding that the central bank digital currencies can settle central bank money safely and securely," said Isabelle Delorme, deputy chief executive of Euroclear France.

Last month, veteran policymaker Benoît Coeuré warned central banks to act more quickly to develop official digital assets because new technologies such as decentralised finance posed a threat to depository institutions and intermediaries such as banks and depositories.

But central banks' efforts to create digital currencies are uneven.

Asset management

GLP to raise $9bn Japan real estate fund in bet on ecommerce warehouse boom

LEO LEWIS AND KANA INAGAKI — TOKYO

GLP, Asia's biggest logistics investor, has launched what it hopes will become a record $9bn real estate fund in Japan as a pandemic-driven ecommerce boom triggers a rush for warehouse space.

The large fund is seeking to take advantage of the fact that much of Japan's logistics infrastructure is yet to be modernised and is now increasingly vulnerable to worker shortages amid the relentless rise of online retail.

GLP said it had raised ¥311bn ($2.7bn) from sovereign wealth funds, pension funds and insurance companies for the biggest ever Japan-focused private real estate fund.

Known as Japan Development Partners IV, the fund is expected to have more than ¥1tn worth of assets under management by the time it is fully deployed.

The fundraising comes as many Japanese cities have recently emerged from months under a state of emergency, with many people's shopping habits changed radically.

"Japan is the fourth-largest ecommerce market," said Yoshiyuki Chosa, president of GLP Japan. "And the pandemic helped ecommerce grow further. So it is a very strong tailwind."

The rise in online retail has exposed some of the flaws in Japan's sometimes antiquated logistics operations.

Japanese warehousing infrastructure and logistics operations are often run on a relatively small scale or are managed by large manufacturers for their own exclusive use.

Japan's logistics market had historically been afflicted by an excess of middlemen, bringing high costs and lower margins, said Chosa.

Meanwhile, there was a need for greater competitiveness in the supply chain, propelled in part by Japan's shrinking workforce and ageing population.

"So there's a lot of room to grow," he said, adding that the fund would target large-scale property assets in Japan and was likely to deploy an initial $4bn in less than four years.

Research published last year by Jones Lang LaSalle showed that, while overall real estate transaction volumes in Japan fell during the first nine months of 2020, logistics investment had surged.

Large global logistics companies have recently spotted the widening gap between the demands of ecommerce in Japan and the lack of the kind of cutting-edge automated logistics centres that are required for that sector to run smoothly.

Last November, DHL Express said it had sunk ¥9.9bn into its largest ever facility investment in Japan — a 21,000 square metre distribution centre outside Osaka.

GLP is aiming to modernise Japan's logistics infrastructure

Banks

Talks over UniCredit's acquisition of Monte dei Paschi hit stumbling block

OWEN WALKER — LONDON
DAVIDE GHIGLIONE — ROME

The Italian government is attempting to push back pressing deadlines over its sale of Monte dei Paschi di Siena as negotiations with would-be acquirer UniCredit hit a big stumbling block.

The Italian Treasury, which bailed out MPS in 2017, is required to sell off its stake in the world's oldest bank by December 31 under conditions set by the European Commission.

But negotiators for the Italian Treasury and UniCredit are "significantly apart" over how much capital the government would be required to inject into MPS, according to people involved in the talks.

"There is a material distance between what UniCredit is now presenting as a deal that could work for them and what is acceptable for the Treasury," said a person close to the negotiations.

The fate of MPS has become a fierce battleground in Italian politics, sparking infighting in the coalition government led by former European Central Bank president Mario Draghi.

The Treasury has indicated that it is unwilling to provide much more than its initial projection of €2bn to €2.5bn, which would be raised through a rights issue. But a person close to UniCredit said the Milan-based lender would require "much, much more capital" than even €5bn, which would "only just help MPS to survive in the short term".

People involved in the negotiations on both sides said the size of the capital injection was proving a significant stumbling block and that each party would be prepared to walk away from a deal rather than conceding ground.

> 'Negotiations were expected to last until September, so now we are running short of time'

One negotiator said "the chances of a deal at this point are 50 per cent or less", adding that there was just a 5 per cent possibility of an agreement being announced by UniCredit's third-quarter results on October 28, a deadline both parties had been striving to meet.

UniCredit plans to present a new business strategy in the fourth quarter of the year and has told the Treasury any deal over MPS would need to be agreed by the end of October as the protracted talks have held up its investor day.

"Negotiations were expected to last until September so now we are really running short of time," said a person close to UniCredit. "This market is expecting a strategy update from us — we cannot postpone it any further."

The impasse has led the Italian government to make inquiries to the EU over whether its deadline to sell the stake in MPS could be pushed back into next year.

While finding a single buyer for the 64 per cent stake would prove tricky should the UniCredit deal collapse, Treasury officials are confident they can recapitalise the business and reduce the MPS holding over time in smaller sales.

The ministry of finance is also considering extending another deadline that runs out on December 31 over the treatment of deferred tax assets in takeovers. This benefit was introduced to make the MPS takeover more palatable to buyers.

UniCredit and the Italian Treasury declined to comment.

The day in the markets

What you need to know

- European stocks slide as retreat in luxury-goods groups weigh on bourses
- Chinese stocks drop after third-quarter GDP data disappoint
- Yield on rate-sensitive two-year gilt climbs to highest level since May 2019

European stocks and government bond prices dipped yesterday as investors digested a slowdown in China's economic growth and the prospect of tighter monetary policies.

The region-wide Stoxx Europe 600 index, which rose more than 2 per cent last week off the back of strong corporate earnings, closed down 0.5 per cent.

London's FTSE 100 slipped 0.4 per cent while bourses in France, Italy and Spain slid between 0.8 per cent and 0.7 per cent as investors trimmed their holdings of luxury-goods businesses such as LVMH and Kering that earn a significant proportion of revenue from China.

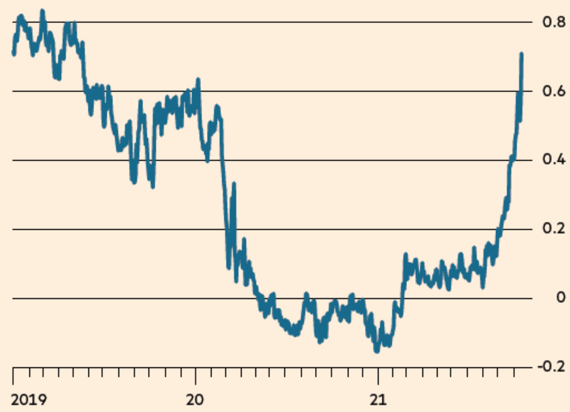
Growth in the world's second-largest economy rose just 0.2 per cent between the second and third quarters of this year, government data showed, as economic activity was curbed by an energy supply shortage and a government crackdown on real estate speculation.

China's CSI 300 share index dropped 1.2 per cent after the gross domestic product data were released, while Japan's Topix drifted 0.2 per cent lower.

Energy traders shrugged off China's slowdown to focus on an ongoing gas shortage, sending Brent crude higher. The international oil benchmark touched $86 a barrel, about a three-year high, before settling at about $84.50 a barrel in the afternoon in London.

Yield on short-dated gilt at highest level in more than 2 years

2-year UK government bond yields (%)



Source: Refinitiv

UK government bonds sold off after a warning from Bank of England governor Andrew Bailey, who said that the nation's rate-setters would "have to act" to curb inflation sparked by rising energy prices and supply-chain bottlenecks.

The yield on the two-year gilt, which is sensitive to future UK interest rates, jumped as much as 16 basis point to 0.75 per cent, its highest since May 2019.

The yield on the 10-year gilt also rose 3 bps to 1.14 per cent in expectation of higher consumer prices and interest rates making the securities' fixed-income payments less attractive.

"Markets see high inflation, central banks with their finger on the trigger and growth slowing," said Trevor Greetham, head of multi-asset at Royal London. "I do think interest rates will have to go up quite quickly." While current high levels of inflation could "ease off next year". He added: "I am circumspect about whether we see a bull market after that."

On Wall Street, the blue-chip S&P 500 was up 0.2 per cent at lunchtime in New York, building on a 0.8 per cent rise in the previous session. The tech-heavy Nasdaq Composite was 0.5 per cent higher.
Naomi Rovnick

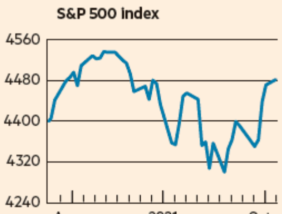
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	4481.77	1808.87	29025.46	7203.83	3568.14	114678.82
% change on day	0.23	-0.53	-0.15	-0.42	-0.12	0.03
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	93.981	1.160	114.235	1.372	6.434	5.534
% change on day	0.047	-0.086	0.149	-0.363	0.071	1.682
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	1.590	-0.150	0.091	1.042	3.038	10.780
Basis point change on day	1.840	1.700	1.540	3.400	7.800	15.200
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	483.00	84.52	81.68	1757.65	22.52	4762.80
% change on day	0.05	-0.40	-0.99	-0.88	-0.13	3.02

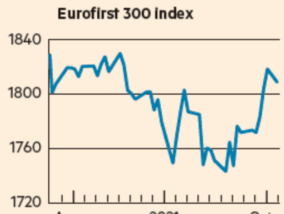
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

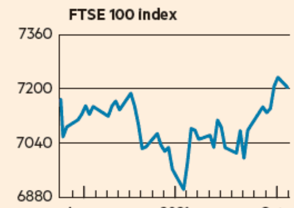
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Cdw	5.33	Commerzbank	1.70	Hargreaves Lansdown	2.55
	C.h. Robinson Worldwide	5.16	A.p. Moller - Maersk B	1.64	Fresnillo	2.06
	Occidental Petroleum	5.02	Novo Nordisk	1.40	Evraz	1.98
	Nordstrom	4.04	Infineon Tech	1.27	Pershing Square Holdings Ltd	1.59
	State Street	4.03	Bbva	0.94	Entain	1.29
Downs	Medtronic	-4.68	Porsche	-3.37	Int Consolidated Airlines S.a.	-3.94
	Netapp	-3.55	Intesa Sanpaolo	-3.24	Informa	-2.99
	Biogen	-3.33	Philips	-3.07	Anglo American	-2.95
	Walt Disney (the)	-2.89	Accor	-2.91	Antofagasta	-2.49
	Arconic	-2.51	Bayer	-2.65	Whitbread	-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

Zillow sank after announcing that it was pausing its Offers service, in which the property portal buys homes from vendors in cash.

Due to a "backlog in renovations and operational capacity constraints", it would not be signing any new purchase contracts for the rest of 2021.

Against a backdrop of rapidly rising US property prices, Bank of America said Zillow's decision might have be "affected by slowing homes sales and [the] company's inability to sell through at the same rate at which it is acquiring".

News of a cyber security incident weighed on TV operator **Sinclair**.

It revealed in regulatory filings that it had found that some of its servers and workstations had been encrypted with ransomware, "certain office and operational networks were disrupted" and "data also was taken from the company's network".

Sinclair acknowledged that the attack had caused disruption to parts of its business, including the provision of local advertising to its stations, and said it was too soon to know whether the event would "have a material impact on its business, operations or financial results".

Biotech group **Revance Therapeutics** plummeted after the US medicine regulator failed to approve its injection for frown lines. *Ray Douglas*

Europe

Promising clinical data buoyed French vaccine maker **Valneva**.

It said the phase 3 trial for its Covid-19 candidate demonstrated "superior neutralising antibody . . . levels compared to active comparator vaccine, AstraZeneca".

Thomas Lingelbach, chief executive, said Valneva was committed to getting its drug licensed "as quickly as possible" after Adam Finn, the trial chief investigator, said the results were "impressive and extremely encouraging".

Modest third-quarter earnings and a trimming back in guidance pushed Dutch heathcare group **Philips** lower.

It posted group sales of €4.2bn, which was 1 per cent below consensus, said Citi, while adjusted earnings before interest, tax and amortisation of €512m fell short of analysts' expectations of €490m.

"Supply chain volatility" had intensified, said the group, "and we expect this headwind to continue in the fourth quarter".

Another pullback in outlook weighed on Belgian's **Umicore**.

The group, which produces materials for solar cells, rechargeable batteries and catalytic converters, sank after saying full-year adjusted earnings before interest and tax "would approach €1bn" compared with a previous guidance of "slightly exceeding €1bn". *Ray Douglas*

London

A deal for **Playtech** propelled the online gaming software group up more than 50 per cent.

Australian gambling machine maker Aristocrat offered Playtech shareholders £6.80 per share — a 58.4 per cent premium on last Friday's closing price.

Broker Peel Hunt, which raised its target price for Playtech, said it expected the proposal to be accepted and did not foresee a counterbid. AJ Bell agreed, saying the offer, which gave Playtech an enterprise value of £2.7bn, looked "like a fait accompli" for a business that had "become a little unfocused and untidy".

THG, formerly known as The Hut Group, jumped a fifth after announcing it was cancelling Matthew Moulding's special share rights, which had given the chief executive an effective veto over hostile takeovers.

The news opened the door to the fast-moving consumer goods group being eligible for a FTSE premium listing and therefore inclusion in indices, which, according to Citi, "should drive passive and active investor interest".

Fashion group **Burberry** sank following news that economic growth in China had slumped to its slowest pace in a year.

China is one of its most important markets, reflected in its recent earnings update that reported a 55 per cent jump in sales in the country. *Ray Douglas*

Alarm bells are ringing for the developing world

Mohamed El-Erian

Markets Insight

Around the globe, macroeconomic challenges are mounting, from higher inflation to shortages of goods and labour.

The impact on advanced economies and China has been much debated. There has been less attention though paid to the vulnerability of a significant group of developing countries.

This goes well beyond the short term. When combined with other forces in play, the most exposed developing countries risk being knocked off a secular global convergence process that many in development economics and finance have taken for granted for years.

An increasing number of economists and policymakers are internalising the reality of high and more persistent inflation, after too many months of dismissing it as "transitory". We no longer live in a world where the main macroeconomic challenge is one of weak aggregate demand. Instead, insufficient supply is causing "everything shortages".

Together with both energy uncertainties and labour market frictions, this is pushing up both cost and price inflation. It can no longer be assumed that technological innovation will continuously lower costs and increase supply responsiveness. This is especially the case given current supply-chain problems.

The focus on what all this means for advanced economies and China is understandable. They account for much of the global economy's growth engines and flows of capital, and they determine what is pursued seriously on the multilateral agenda.

Yet the implications for commodity-importing developing countries in general, and the lower-income economies in particular, are much more consequential. Combined with the impact of Covid-19, the problems risk derailing the longer-term process in which more countries steadily climb the economic development ladder.

As growth slows down in China and the US in the face of stagflationary winds blowing through the global economy, the challenges to these countries' wellbeing and financial viability increase. The pressures come as the classical growth model for them — that of export-led, labour-intensive manufacturing — has already lost potency.

Being net food importers, many developing economies face higher

> The latest global problems risk derailing the process in which countries climb the development ladder

import costs that also fuel food insecurity. Higher energy costs are threatening to lead to power outages that would cripple industrial production.

Developing economies are also likely to be on the receiving end of disruptive market trends. In recent years, the prolonged pursuit of ultra-loose monetary policies in the US and Europe "pushed" capital to the developing world in search of higher returns. Should the US Federal Reserve continue to lag behind inflation realities and subsequently be forced into a sudden policy tightening, the greater the likelihood of large outflows and increased capital costs.

There is no silver bullet to ensure an immediate and substantial reduction in these risks. Instead, what is needed is a multi-measure approach. This should be centred on increasing the supply of Covid vaccines. As Gita Gopinath, the IMF Research Director said last week, 96 per cent of the population in low-income countries remains unvaccinated.

Crippling debt-servicing problems should also be pre-empted through early, orderly restructurings that involve fair burden sharing among public and private creditors. In addition, the flow of concessional financing from multilateral sources needs to grow.

Such measures need to be combined with credible, homegrown efforts to re-energise domestic growth models in developing countries and increase internal financial resilience.

Advanced economies should note that troubles in the developing world will also affect them. The more that developing countries risk being knocked off the convergence process, the greater the likelihood of surges in migration, global financial instability and geopolitical threats.

There are also implications for investors. Succeeding in emerging market investing is becoming less about riding the liquidity wave using passive products. Instead, investors increasingly have to go back to detailed credit analyses, smart structuring, proper pricing of liquidity — and, for some, an understanding of debt-rescheduling risk.

The more they delay in making this fundamental transition, the more likely they will be shocked into portfolio adjustments that fuel contagion across markets. This would also complicate an already challenged outlook for global prosperity and social wellbeing.

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

MARKET DATA

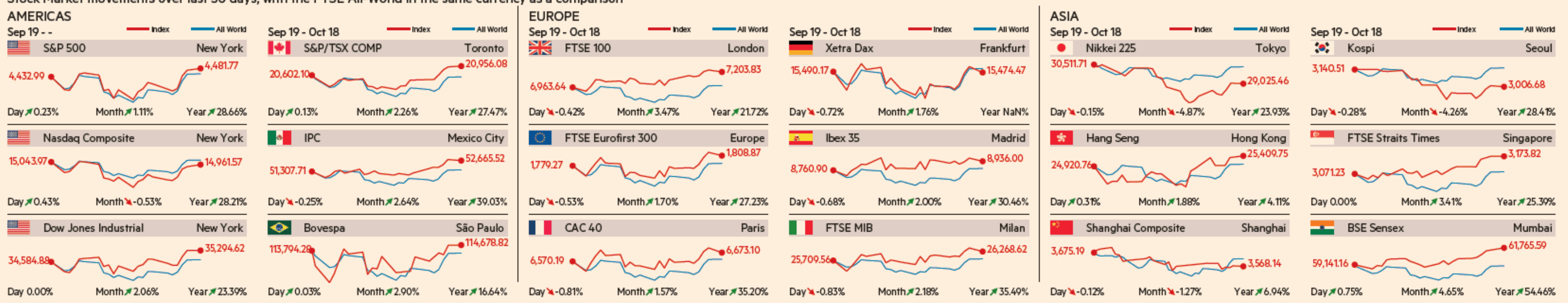
WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
0.23%	0.43%	No change	-0.42%	-0.53%	-0.15%	0.31%	0.05%	-0.086%	-0.363%	0.149%	0.356%	0.76%	-0.88%

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



Country	Index	Latest	Previous	Country	Index	Latest	Previous	Country	Index	Latest	Previous
Argentina	Merval	83359.92	81990.22	Cyprus	CSE M&P Gen	68.46	68.68	Italy	FTSE Italia All-Share	28868.66	29077.70
Australia	All Ordinaries	7689.70	7674.20	Czech Republic	PX	1354.54	1361.76		FTSE Italia Mid Cap	49759.69	49729.77
	S&P/ASX 200	7381.10	7362.00	Denmark	OMXC Copenhagen 20	1768.84	1782.55		FTSE MIB	26268.62	26489.18
	S&P/ASX 200 Res	5011.80	4960.00	Egypt	EGX 30	11155.57	10995.59	Japan	2nd Section	7724.55	7683.66
Austria	ATX	3781.37	3790.42	Estonia	OMX Tallinn	1943.90	1909.14		Nikkei 225	29025.46	29068.63
Belgium	BEL 20	4178.35	4205.30	Finland	OMX Helsinki General	12695.94	12735.22		S&P Topix 150	1723.09	1725.26
	BEL Mid	10238.74	10235.59	France	CAC 40	6673.10	6727.52		Topix	2019.23	2023.93
Brazil	IBovespa	114678.82	114647.99		SBF 120	5219.77	5259.89	Jordan	Amman SE	2103.97	2110.51
Canada	S&P/TSX 60	1259.17	1256.43	Germany	M-DAX	34389.65	34359.41	Kenya	NSE 20	1970.44	1972.30
	S&P/TSX Comp	20956.08	20929.19		TecDAX	3721.66	3726.24	Kuwait	KSX Market Index	6633.44	6603.51
	S&P/TSX Div Met & Min	1076.40	1044.26		XETRA Dax	15474.47	15587.36	Latvia	OMX Riga	1285.94	1285.29
Chile	S&P/CLX IGPA Gen	20143.99	19965.59	Greece	Athens Gen	891.60	894.74	Lithuania	OMX Vilnius	926.38	924.45
China	FTSE A200	12993.94	13156.41		FTSE/ASE 20	2154.82	2163.62	Luxembourg	LuxX	1706.54	1702.50
	FTSE B35	9000.71	8988.90	Hong Kong	Hang Seng	25409.75	25330.96	Malaysia	FTSE Bursa KLCI	1605.97	1599.29
	Shanghai A	3739.46	3743.92		HS China Enterprise	8971.43	8956.17	Mexico	IPC	52665.52	52798.38
	Shanghai B	279.27	277.97		HSCC Red Chip	3848.66	3852.11	Morocco	MASI	13300.93	13283.15
	Shanghai Comp	3568.14	3572.37	Hungary	Bux	54637.92	54784.34	Netherlands	AEX	796.74	800.41
	Shenzhen A	2513.45	2511.87	India	BSE Sensex	61765.59	61305.95		AEX All Share	1100.52	1105.38
	Shenzhen B	1168.23	1165.84		Nifty 500	15888.15	15769.25	New Zealand	NZX 50	12998.51	13012.19
Colombia	COLCAP	1261.61	1260.21	Indonesia	Jakarta Comp	6658.77	6633.34	Nigeria	SE All Share	41438.15	41129.98
Croatia	CROBEX	2013.05	2011.29	Ireland	ISEQ Overall	8651.95	8726.33	Norway	Oslo All Share	1017.37	1006.88
				Israel	Tel Aviv 125	1909.51	1891.93	Pakistan	KSE 100	44629.45	44821.53

Country	Index	Latest	Previous	Country	Index	Latest	Previous	Country	Index	Latest	Previous
Philippines	Manila Comp	7219.81	7213.46	Taiwan	Weighted Pr	16705.46	16781.19	Cross-Border	DJ Global Titans ($)	516.38	515.26
Poland	Wig	74618.51	74444.83	Thailand	Bangkok SET	1643.92	1636.34		Euro Stoxx 50 (Eur)	4154.24	4182.91
Portugal	PSI 20	5619.21	5658.55	Turkey	BIST 100	1417.70	1409.56		Euronext 100 ID	1311.86	1320.37
	PSI General	4168.61	4191.76	UAE	Abu Dhabi General Index	7834.71	7811.59		FTSE 4Good Global ($)	10996.85	11001.35
Romania	BET Index	12669.78	12711.06	UK	FT 30	2745.20	2736.90		FTSE All World ($)	483.00	482.75
Russia	Micex Index	4245.53	4261.62		FTSE 100	7203.83	7234.03		FTSE E300	1808.87	1818.49
	RTX	1875.79	1891.56		FTSE 4Good UK	6686.41	6712.36		FTSE Eurotop 100	3399.30	3418.40
Saudi-Arabia	TADAWUL All Share Index	11773.36	11689.11		FTSE All Share	4110.17	4123.97		FTSE Global 100 ($)	2905.64	2900.41
Singapore	FTSE Straits Times	3173.82	3173.91		FTSE techMARK 100	7144.52	7204.55		FTSE Gold Min ($)	2046.42	2064.22
Slovakia	SAX	387.41	387.41	USA	DJ Composite	11669.12	11654.47		FTSE Latibex Top (Eur)	4440.00	4432.20
Slovenia	SBI TOP	-	-		DJ Industrial	35294.62	35294.76		FTSE Multinationals ($)	3136.24	3110.65
South Africa	FTSE/JSE All Share	66792.10	67028.66		DJ Transport	15304.79	15190.68		FTSE World ($)	866.25	866.06
	FTSE/JSE Res 20	63625.75	64346.75		DJ Utilities	893.20	896.54		FTSEurofirst 100 (Eur)	4634.70	4668.73
	FTSE/JSE Top 40	60229.45	60494.02		Nasdaq 100	15222.21	15145.92		FTSEurofirst 80 (Eur)	5748.12	5787.93
South Korea	Kospi	3006.68	3015.06		Nasdaq Cmp	14961.57	14897.34		MSCI ACWI Fr ($)	732.95	726.63
	Kospi 200	392.02	393.19		NYSE Comp	16883.72	16871.74		MSCI All World ($)	3109.47	3084.59
Spain	IBEX 35	8936.00	8997.00		S&P 500	4481.77	4471.37		MSCI Europe (Eur)	1868.32	1858.52
Sri Lanka	CSE All Share	9709.14	9623.81		Wilshire 5000	46681.85	46547.78		MSCI Pacific ($)	3175.86	3138.06
Sweden	OMX Stockholm 30	2311.70	2314.98	Venezuela	IBC	5603.32	5650.35		S&P Euro (Eur)	1934.92	1948.94
	OMX Stockholm AS	959.88	959.45	Vietnam	VNI	1395.53	1392.70		S&P Europe 350 (Eur)	1861.74	1871.63
Switzerland	SMI Index	11968.08	11961.34						S&P Global 1200 ($)	3404.54	3402.66
									Stoxx 50 (Eur)	3608.91	3628.05

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

STOCK MARKET: BIGGEST MOVERS

AMERICA ACTIVE STOCKS	stock traded m's	close price	Day's change	LONDON ACTIVE STOCKS	stock traded m's	close price	Day's change
Amazon.com	58.0	3419.83	10.81	Glencore	167.8	392.45	1.90
Apple	54.3	145.39	0.55	Playtech	140.7	678.50	249.30
Facebook	33.2	334.55	9.79	Royal Dutch Shell	107.3	1790.00	-5.00
Advanced Micro Devices	28.2	115.39	3.27	Rio Tinto	107.3	5002.00	-36.00
Microsoft	24.2	304.66	0.45	Bp	100.1	361.45	-2.15
Nvidia	20.5	221.52	2.90	Bhp	95.2	1987.60	-1.60
Walt Disney (the)	12.8	171.36	-5.10	Astrazeneca	91.6	8699.00	-96.00
Netflix	12.4	631.77	3.48	Unilever	84.8	3838.50	-15.00
Bank Of America	11.0	46.43	0.06	Anglo American	82.1	2826.00	-86.00
Alphabet	9.6	2839.00	11.64	Hsbc Holdings	75.9	432.80	-1.40

EURO MARKETS ACTIVE STOCKS	stock traded m's	close price	Day's change	TOKYO ACTIVE STOCKS	stock traded m's	close price	Day's change
Bbva	831.1	5.82	0.05	Softbank	721.0	6238.00	-52.00
Asml Holding	456.8	[illegible]	[illegible]	Nippon Yusen Kabushiki Kaisha	682.4	7540.00	50.00
Intesa Sanpaolo	371.3	2.49	-0.08	Fast Retailing Co.,	534.0	73480.00	700.00
Santander	289.9	3.33	-0.02	Toyota Motor	486.0	2040.00	46.50
[illegible]	[illegible]	[illegible]	[illegible]	Tokyo Electron	444.7	50010.00	460.00
[illegible]	[illegible]	[illegible]	[illegible]	Sumco	377.8	2274.00	-11.00
Daimler Ag Na O.n.	215.3	81.95	-1.70	Sony	353.8	12680.00	-210.00
[illegible]	[illegible]	[illegible]	[illegible]	Kawasaki Kisen Kaisha	310.1	5020.00	30.00
Eni	210.0	12.24	0.03	Mitsui O.s.k.lines	271.3	8440.00	-50.00
Sap Se O.n.	190.8	124.98	-1.30	Recruit Hldgs Co Ltd	247.2	7270.00	-80.00

AMERICA BIGGEST MOVERS	Close price	Day's change	Day's chng%	LONDON BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups				**Ups**			
Cdw	187.20	9.48	5.33	Playtech	678.50	249.30	58.08
Ch. Robinson Worldwide	99.51	4.88	5.16	Diversified Energy	112.40	5.00	4.66
Occidental Petroleum	33.25	1.59	5.02	888 Holdings	416.00	18.00	4.52
Nordstrom	29.22	1.14	4.04	Network Int Holdings	339.60	11.20	3.41
State Street	96.47	3.74	4.03	Vinacapital Vietnam Opportunity Fund Ltd	494.50	14.50	3.02
Downs				**Downs**			
Medtronic	121.77	-5.98	-4.68	Carnival	1535.20	-75.60	-4.69
Netapp	91.07	-3.35	-3.55	Aston Martin Lagonda Global Holdings	1733.00	-85.00	-4.68
Biogen	271.84	-9.35	-3.33	Int Consolidated Airlines S.a.	175.72	-7.20	-3.94
Walt Disney (the)	171.36	-5.10	-2.89	National Express	227.20	-9.00	-3.81
Arconic	30.94	-0.80	-2.51	Greencore	130.30	-4.90	-3.62

Based on the constituents of the S&P500 — Based on the constituents of the FTSE 350 index

EURO MARKETS BIGGEST MOVERS	Close price	Day's change	Day's chng%	TOKYO BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups				**Ups**			
Commerzbank Ag	6.20	0.10	1.70	Toho Z Co.,	3475.00	455.00	15.07
A.p. M__ller - M__rsk B A/s	2253.85	36.29	1.64	Hitachi Zosen	933.00	72.00	8.36
A.p. M__ller - M__rsk A A/s	2134.24	30.91	1.47	Mitsui Eng & Shipbuilding Co.,	563.00	31.00	5.83
Novo Nordisk B A/s	89.67	1.24	1.40	Mitsui Mining And Smelting,	3520.00	175.00	5.23
Svenska Handelsbanken Ser. A	10.57	0.13	1.29	Inpex	1010.00	47.00	4.88
Downs				**Downs**			
Porsche Autom.hldg Vzo	87.20	-3.04	-3.37	Daiichi Sankyo,	2839.50	-103.00	-3.50
Intesa Sanpaolo	2.49	-0.08	-3.24	M3,.	7251.00	-220.00	-2.94
Volkswagen Ag Vzo O.n.	192.34	-6.32	-3.18	Takashimaya,	1147.00	-34.00	-2.88
Philips Kon	37.24	-1.18	-3.07	Meiji Holdings Co.,	7160.00	-190.00	-2.59
Accor	31.08	-0.93	-2.91	Nippon Suisan Kaisha,	655.00	-16.00	-2.38

Based on the constituents of the FTSEurofirst 300 Eurozone index — Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Oct 18 price(p)	%Chg week	%Chg ytd	FTSE 250	Oct 18 price(p)	%Chg week	%Chg ytd
Winners				**Winners**			
Ocado	1796.00	14.7	-	Playtech	678.50	60.0	58.4
Ashtead	5934.00	7.0	70.1	Petropavlovsk	24.52	13.8	-19.9
Croda Int	8846.00	7.0	35.3	Man	229.20	12.7	62.4
Glencore	392.45	6.9	66.1	Trustpilot	382.00	12.2	-
Evraz	629.60	6.7	32.6	[illegible]	[illegible]	[illegible]	[illegible]
Fresnillo	863.00	6.4	-	Ferrexpo	[illegible]	[illegible]	[illegible]
Barratt Developments	677.80	6.2	-0.1	Mediclinic Int	343.20	10.6	20.9
Segro	1273.50	6.1	33.5	Investec	337.20	10.4	75.8
St. James's Place	1529.00	6.1	34.6	Kainos	1980.00	9.8	58.9
Bunzl	2538.00	5.9	2.1	Safestore Holdings	1185.00	8.9	51.0
Polymetal Int	1343.50	5.6	-	Dechra Pharmaceuticals	4880.00	8.7	37.9
B&m Eur Value Retail S.a.	596.40	5.6	14.2	Softcat	2094.00	8.7	52.3
Losers				**Losers**			
Pearson	615.20	-17.4	-10.6	Diversified Energy	112.40	-11.2	-
Informa	533.00	-7.4	-4.5	Qinetiq	291.00	-10.2	-
Bt	137.45	-6.2	1.6	Rhi Magnesita N.v.	2954.00	-8.2	-
Prudential	1433.00	-3.7	4.5	Tui Ag	258.00	-7.1	-
Int Consolidated Airlines S.a.	175.72	-3.5	3.0	Restaurant	86.90	-7.0	35.7
Astrazeneca	8699.00	-3.4	17.5	Babcock Int	331.80	-5.5	14.5
Compass	1457.00	-3.2	4.7	Vesuvius	449.60	-5.4	-
Smith (ds)	374.30	-3.0	-1.4	Wizz Air Holdings	4519.00	-5.3	-2.5
Aviva	393.50	-2.9	20.0	Carnival	1535.20	-4.8	10.5
Legal & General	276.30	-2.8	2.2	Wood (john)	225.00	-4.4	-
Smurfit Kappa	3675.00	-2.6	5.8	National Express	227.20	-4.3	-5.6
Smiths	1402.00	-2.3	-9.0	Cineworld	64.92	-4.0	1.7

FTSE SmallCap	Oct 18 price(p)	%Chg week	%Chg ytd	Industry Sectors	Oct 18 price(p)	%Chg week	%Chg ytd
Winners				**Winners**			
Record	78.60	20.6	60.4	Health Care Equip & Services	8445.81	36.9	9.7
Norcros	341.00	15.2	72.2	Industrial Transportation	4484.77	27.7	5.6
Lsl Property Services	442.00	11.1	56.2	Aerospace & Defense	4542.40	24.0	18.3
Augmentum Fintech	158.00	10.5	17.0	Real Estate & Investment Servic	3012.57	23.2	12.6
Clipper Logistics	706.00	10.1	21.6	Pharmaceuticals & Biotech.	17956.45	20.9	7.9
Made.com	149.20	9.8	-	Beverages	28037.79	18.8	4.6
Luceco	333.00	9.4	31.6	Electricity	9622.28	17.1	4.7
Mj Gleeson	810.00	8.3	4.4	Support Services	11793.88	16.1	7.7
Ted Baker	149.20	8.2	20.7	Electronic & Electrical Equip.	11424.32	15.0	4.9
Avon Protection	2025.00	7.5	-	Real Estate Investment Trusts	3209.37	15.5	4.6
Kenmare Resources	455.00	7.1	44.7	Chemicals	16209.95	13.4	3.4
Up Global Sourcing Holdings	170.00	6.6	41.7	Oil & Gas Producers	6275.40	13.0	22.6
Losers				**Losers**			
Lamprell	33.30	-8.4	-	Food Producers	6392.23	-15.1	-
Trifast	128.50	-7.6	-	Mining	20941.29	-14.5	-
Petrofac	163.20	-7.0	12.5	Mobile Telecommunications	2642.96	-12.8	-
Fisher (james) & Sons	768.00	-6.6	-	Automobiles & Parts	4196.23	-11.6	-
Hollywood Bowl	228.00	-6.2	16.3	Travel & Leisure	8717.81	-7.5	0.0
Tullow Oil	51.62	-6.0	73.3	Household Goods	16739.37	-5.5	-
U And I	85.00	-5.6	35.4	Life Insurance	7920.06	-3.7	-3.6
Hunting	201.00	-5.0	-6.9	Personal Goods	33074.01	-3.7	-
Batm Advanced Communications Ltd	82.60	-4.7	-	General Retailers	2555.96	-3.5	-9.6
Xps Pensions	135.00	-4.3	3.1	Nonlife Insurance	3105.43	-2.2	-0.9
Pendragon	18.25	-4.2	44.6	Food & Drug Retailers	4160.65	-0.9	-5.2
Stagecoach	79.55	-4.1	4.0	General Industrials	6615.71	-0.8	-4.9

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

CURRENCIES

Oct 18	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	99.2760	0.0906	115.1747	0.0650	136.2072	-0.3553
Australia	Australian Dollar	1.3491	0.0022	1.5651	0.0020	1.8509	-0.0035
Bahrain	Bahrainin Dinar	0.3770	0.0001	0.4373	-0.0001	0.5172	-0.0018
Bolivia	Bolivian Boliviano	6.9100	-	8.0166	-0.0028	9.4806	-0.0334
Brazil	Brazilian Real	5.5343	0.0916	6.4206	0.1040	7.5931	0.0993
Canada	Canadian Dollar	1.2368	0.0010	1.4348	0.0007	1.6968	-0.0046
Chile	Chilean Peso	820.2000	-3.0300	951.5523	-3.8478	1125.3190	-8.1383
China	Chinese Yuan	6.4339	0.0046	7.4642	0.0027	8.8273	-0.0248
Colombia	Colombian Peso	3766.9700	4.9550	4370.2378	4.2282	5168.3059	-11.3934
Costa Rica	Costa Rican Colon	628.6150	0.1750	729.2856	-0.0508	862.4633	-2.7990
Czech Republic	Czech Koruna	21.9502	0.0859	25.4654	0.0909	30.1157	0.0122
Denmark	Danish Krone	6.4135	0.0025	7.4406	0.0003	8.7994	-0.0276
Egypt	Egyptian Pound	15.7100	0.0142	18.2259	0.0102	21.5542	-0.0564
Hong Kong	Hong Kong Dollar	7.7789	0.0009	9.0247	-0.0021	10.6728	-0.0364
Hungary	Hungarian Forint	312.0028	2.4642	361.9690	2.7338	428.0696	1.8840
India	Indian Rupee	75.3469	0.0888	87.4135	0.0726	103.3764	-0.2422
Indonesia	Indonesian Rupiah	14110.0000	36.0000	16369.6932	36.0958	19359.0228	-18.6816
Israel	Israeli Shekel	3.2191	-0.0027	3.7346	-0.0045	4.4166	-0.0194
Japan	Japanese Yen	114.2350	0.1700	132.5294	0.1512	156.7311	-0.3184
..One Month		114.2350	0.1700	132.5294	0.1513	156.7310	-0.3184
..Three Month		114.2349	0.1697	132.5295	0.1515	156.7309	-0.3187
..One Year		114.2345	0.1689	132.5299	0.1522	156.7310	-0.3196
Kenya	Kenyan Shilling	110.9500	0.0500	128.7183	0.0132	152.2240	-0.4677
Kuwait	Kuwaiti Dinar	0.3018	-	0.3501	-0.0001	0.4141	-0.0015
Malaysia	Malaysian Ringgit	4.1715	0.0135	4.8396	0.0140	5.7233	-0.0016
Mexico	Mexican Peso	20.3550	-0.1020	23.6148	-0.1266	27.9272	-0.2389
New Zealand	New Zealand Dollar	1.4133	-0.0006	1.6397	-0.0013	1.9391	-0.0077
Nigeria	Nigerian Naira	413.7500	-	480.0107	-0.1671	567.6673	-2.0009
Norway	Norwegian Krone	8.4230	0.0141	9.7720	0.0130	11.5565	-0.0213
Pakistan	Pakistani Rupee	172.1000	1.3000	199.6612	1.4392	236.1222	0.9576
Peru	Peruvian Nuevo Sol	3.9422	0.0216	4.5735	0.0235	5.4087	0.0107
Philippines	Philippine Peso	50.8400	0.1250	58.9819	0.1245	69.7528	-0.0738
Poland	Polish Zloty	3.9534	0.0224	4.5865	0.0244	5.4241	0.0117
Romania	Romanian Leu	4.2653	0.0017	4.9483	0.0003	5.8519	-0.0182
Russia	Russian Ruble	71.2975	0.3375	82.7156	0.3629	97.8206	0.1199
Saudi Arabia	Saudi Riyal	3.7508	-	4.3515	-0.0015	5.1461	-0.0181
Singapore	Singapore Dollar	1.3495	0.0019	1.5656	0.0017	1.8515	-0.0038
South Africa	South African Rand	14.6875	0.0669	17.0397	0.0717	20.1513	0.0210
South Korea	South Korean Won	1187.5500	5.1500	1377.7323	5.4972	1629.3255	1.3480
Sweden	Swedish Krona	8.6605	0.0461	10.0475	0.0500	11.8823	0.0216
Switzerland	Swiss Franc	0.9239	0.0009	1.0718	0.0007	1.2675	-0.0032
Taiwan	New Taiwan Dollar	28.0100	-0.0040	32.4957	-0.0160	38.4299	-0.1410
Thailand	Thai Baht	33.4725	0.1625	38.8330	0.1751	45.9245	0.0619
Tunisia	Tunisian Dinar	2.8331	0.0111	3.2868	0.0117	3.8870	0.0016
Turkey	Turkish Lira	9.3192	0.1217	10.8117	0.1375	12.7861	0.1226
United Arab Emirates	UAE Dirham	3.6732	-	4.2614	-0.0015	5.0396	-0.0178
United Kingdom	Pound Sterling	0.7289	0.0026	0.8456	0.0027	-	-
..One Month		0.7289	0.0025	0.8455	0.0027	-	-
..Three Month		0.7289	0.0025	0.8454	0.0026	-	-
..One Year		0.7281	0.0023	0.8444	0.0025	-	-
United States	United States Dollar	-	-	1.1601	-0.0004	1.3720	-0.0048
..One Month		-	-	1.1601	-0.2167	1.3720	-0.0048
..Three Month		-	-	1.1599	-0.2167	1.3720	-0.0049
..One Year		-	-	1.1591	-0.2167	1.3713	-0.0051
Vietnam	Vietnamese Dong	22760.5000	-	26405.5684	-9.2070	31227.5552	-110.0923
European Union	Euro	0.8620	0.0003	-	-	1.1826	-0.0038
..One Month		0.8619	0.0003	-	-	1.1826	-0.0038
..Three Month		0.8617	0.0003	-	-	1.1824	-0.0038
..One Year		0.8610	0.0003	-	-	1.1814	-0.0039

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

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Produced in conjunction with the Institute and Faculty of Actuaries

	£ Stlg Oct 18	Day's chge%	Euro Index	£ Stlg Oct 15	£ Stlg Oct 14	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (101)	7203.83	-0.42	6636.20	7234.03	7207.71	5919.58	3.42	1.97	14.84	214.66	7100.89
FTSE 250 (250)	22968.74	-0.07	21158.91	22984.24	22860.39	17822.91	1.87	3.12	17.20	367.86	18532.73
FTSE 250 ex Inv Co (183)	24002.57	-0.12	22111.29	24031.70	23892.29	17895.61	1.79	0.69	81.25	332.96	19749.67
FTSE 350 (351)	4127.24	-0.36	3802.04	4141.99	4125.65	3356.89	3.15	2.09	15.21	112.80	8086.25
FTSE 350 ex Investment Trusts (282)	4024.33	-0.39	3707.23	4040.13	4024.36	3264.56	3.23	1.72	18.07	83.47	4072.04
FTSE 350 Higher Yield (114)	3240.28	-0.37	2984.96	3252.41	3243.86	2478.10	4.73	1.43	14.81	123.84	7056.31
FTSE 350 Lower Yield (237)	4780.84	-0.34	4404.13	4797.05	4771.37	4122.24	1.46	4.39	15.66	78.43	5755.64
FTSE SmallCap (254)	7446.60	0.28	6859.84	7425.88	7406.28	5190.17	2.37	4.29	9.81	136.30	12070.95
FTSE SmallCap ex Inv Co (134)	6336.89	0.40	5837.58	6311.82	6289.28	3847.17	1.83	0.91	59.89	81.31	10703.08
FTSE All-Share (605)	4110.17	-0.33	3786.31	4123.97	4107.88	3325.67	3.12	2.15	14.93	111.06	8132.34
FTSE All-Share ex Inv Co (416)	3967.37	-0.38	3654.76	3982.36	3966.84	3201.11	3.20	1.71	18.31	81.72	4076.20
FTSE All-Share ex Multinationals (534)	1321.48	-0.08	1010.57	1322.55	1315.43	1042.99	2.53	3.29	12.04	28.20	2706.41
FTSE Fledgling (85)	13534.09	0.31	12467.66	13492.05	13447.13	8870.35	2.10	5.53	8.60	218.78	28355.74
FTSE Fledgling ex Inv Co (36)	18694.60	0.40	17221.55	18619.68	18511.74	93.43	1.39	-7.79	-9.24	208.88	38125.11
FTSE All-Small (339)	5186.30	0.28	4777.65	5171.78	5157.93	3602.19	2.36	4.35	9.74	94.29	10784.75
FTSE All-Small ex Inv Co (170)	4763.68	0.40	4388.33	4744.82	4727.48	86.60	1.81	0.66	83.27	60.91	10191.18
FTSE AIM All-Share (747)	1237.42	0.68	1139.92	1229.07	1225.04	977.72	0.83	1.39	86.94	8.36	1430.73
FTSE All-Share Technology (22)	2301.86	0.14	2174.86	2298.75	2303.81	2270.64	1.48	0.83	81.45	19.59	3265.59
FTSE All-Share Telecommunications (7)	1719.46	-1.19	1624.59	1740.09	1747.09	1592.18	5.00	0.65	30.86	40.79	2424.78
FTSE All-Share Health Care (13)	12656.30	-0.74	11958.01	12750.65	12762.81	12111.01	3.18	0.69	45.32	184.60	11359.47
FTSE All-Share Financials (253)	4921.75	-0.07	4650.20	4925.39	4884.30	3740.44	2.66	5.41	6.96	91.62	5273.10
FTSE All-Share Real Estate (56)	1157.92	-0.24	1144.48	1160.74	1147.83	876.46	2.54	0.30	132.51	16.65	1174.63
FTSE All-Share Consumer Discretionary (90)	5443.67	-0.66	5143.32	5480.06	5463.98	4176.68	1.45	-0.35	-197.60	63.19	5634.42
FTSE All-Share Consumer Staples (27)	18508.22	-0.22	17487.05	18549.79	18586.16	18510.37	4.02	1.18	21.11	486.29	16250.22
FTSE All-Share Industrials (88)	7033.82	-0.40	6645.74	7062.10	7043.75	5542.03	1.72	2.55	22.74	79.44	7939.20
FTSE All-Share Basic Materials (25)	8145.90	-0.50	7696.46	8187.22	8170.06	6067.59	6.40	2.41	6.49	365.27	10429.14
FTSE All-Share Energy (14)	6502.37	-0.33	6143.61	6523.64	6414.55	3633.96	3.25	0.75	41.08	111.66	7538.74
FTSE All-Share Utilities (10)	7771.36	0.79	7342.59	7710.51	7776.30	7226.47	4.59	1.67	13.05	236.94	11246.09
FTSE All-Share Software and Computer Services (20)	2465.30	0.09	2329.28	2462.99	2468.50	2458.73	1.48	0.82	82.26	20.60	3700.29
FTSE All-Share Technology Hardware and Equipment (2)	7184.81	1.23	6788.40	7097.24	7106.25	4580.00	1.43	1.08	64.69	88.39	9112.85
FTSE All-Share Telecommunications Equipment (2)	670.89	-1.25	633.87	679.36	672.45	712.77	1.34	2.69	27.72	5.80	939.00
FTSE All-Share Telecommunications Service Providers (5)	2638.96	-1.18	2493.36	2670.54	2683.04	2425.69	5.17	0.62	31.02	64.75	3383.60
FTSE All-Share Health Care Providers (3)	8743.09	0.16	8260.71	8729.03	8084.90	5613.88	0.12	53.81	15.68	6.62	8071.60
FTSE All-Share Medical Equipment and Services (2)	5957.27	-0.62	5628.58	5994.31	5990.68	6693.84	2.13	1.07	43.75	126.98	5607.67
FTSE All-Share Pharmaceuticals and Biotechnology (8)	17892.92	-0.76	16905.70	18029.36	18061.56	17044.32	3.28	0.66	46.30	255.46	14450.84
FTSE All-Share Banks (11)	3032.17	0.05	2864.87	3030.69	2977.72	1893.58	2.60	5.45	7.06	44.86	2575.05
FTSE All-Share Finance and Credit Services (7)	11078.56	0.11	10467.32	11066.43	10956.35	8695.51	1.29	1.56	49.81	126.28	14604.29
FTSE All-Share Investment Banking and Brokerage Services (33)	10499.03	0.16	9919.76	10482.35	10430.61	8786.18	3.73	2.40	11.17	279.53	14041.15
FTSE All-Share Closed End Investments (189)	13901.40	0.24	13134.41	13868.62	13813.85	11673.03	2.05	11.44	4.26	166.48	8460.89
FTSE All-Share Life Insurance (6)	8052.42	-1.25	7608.14	8154.56	8154.63	5949.54	3.33	2.27	13.23	267.54	9452.06
FTSE All-Share Nonlife Insurance (7)	3537.78	-0.47	3342.59	3554.42	3551.86	3136.72	4.01	1.69	14.75	125.32	7249.67
FTSE All-Share Real Estate Investment and Services (15)	2943.74	0.57	2781.32	2926.95	2915.00	2252.08	1.66	2.55	23.62	34.45	8600.47
FTSE All-Share Real Estate Investment Trusts (41)	2866.12	-0.44	2707.98	2878.65	2841.88	2162.62	2.75	-0.03	-1401.33	41.86	4177.53
FTSE All-Share Automobiles and Parts (2)	4217.73	-3.45	3985.03	4368.65	4306.97	2877.46	1.12	-7.85	-11.35	10.66	4355.99
FTSE All-Share Consumer Services (3)	2426.73	-2.13	2292.84	2479.43	2480.96	2067.87	0.01	-62.70	-111.63	0.13	3037.37
FTSE All-Share Household Goods and Home Construction (13)	14088.88	-0.79	13311.54	14201.32	14127.08	11306.79	5.14	1.57	12.35	417.85	11746.14
FTSE All-Share Leisure Goods (2)	26279.89	0.45	24829.93	26162.44	26013.72	26777.71	1.48	2.59	26.11	388.85	28016.94
FTSE All-Share Personal Goods (5)	28731.90	-0.81	27146.66	28966.83	29331.96	21782.86	1.42	1.24	56.76	419.78	22017.18
FTSE All-Share Media (11)	9364.75	-0.35	8848.07	9397.83	9532.76	7046.43	1.84	1.04	52.56	177.00	6436.32
FTSE All-Share Retailers (22)	2678.27	-0.35	2530.50	2687.74	2667.57	2094.03	1.22	4.02	20.37	29.59	3389.27
FTSE All-Share Travel and Leisure (32)	8580.88	-0.57	8107.44	8630.39	8486.01	6169.74	0.10	-100.38	-10.45	11.71	8818.30
FTSE All-Share Beverages (6)	28156.00	-0.26	26602.53	28228.24	28405.16	20821.30	2.02	1.51	32.61	353.51	22103.22
FTSE All-Share Food Producers (10)	6587.16	-0.17	6223.72	6598.21	6567.75	6134.12	1.77	3.04	18.55	88.48	6199.80
FTSE All-Share Tobacco (2)	27784.03	-0.66	26251.09	27967.30	27881.85	27446.64	8.41	1.44	8.26	1542.74	24188.86
FTSE All-Share Construction and Materials (15)	8213.77	-0.04	7760.58	8217.34	8179.84	6754.20	2.16	0.59	79.06	63.38	9697.98
FTSE All-Share Aerospace and Defense (9)	4824.87	-1.08	4558.66	4877.35	4850.28	3325.07	1.93	8.60	6.01	60.09	5720.64
FTSE All-Share Electronic and Electrical Equipment (10)	13500.99	-0.44	12756.09	13560.88	13526.09	11017.47	1.18	2.17	39.00	141.80	13120.49
FTSE All-Share General Industrials (9)	5330.08	-0.94	5036.00	5380.55	5431.55	4791.05	2.76	1.02	35.38	108.66	6809.13
FTSE All-Share Industrial Engineering (5)	18970.71	-0.29	17924.02	19025.72	19102.80	15615.69	1.01	2.51	39.48	192.50	25066.41
FTSE All-Share Industrial Support Services (32)	11348.70	-0.20	10722.55	11371.02	11339.61	9509.70	1.51	1.54	42.92	108.45	12766.02
FTSE All-Share Industrial Transportation (8)	6713.34	0.14	6342.94	6704.27	6598.27	3564.10	1.07	2.93	31.86	61.48	6885.99
FTSE All-Share Industrial Materials (1)	18203.40	1.11	653.39	18003.36	18103.38	18088.56	1.75	2.64	21.67	318.56	22525.43
FTSE All-Share Industrial Metals and Mining (11)	6760.60	-0.67	6387.59	6805.87	6786.89	4779.82	7.09	2.43	5.81	326.35	9697.63
FTSE All-Share Precious Metals and Mining (6)	20049.34	1.08	18943.15	19834.88	19900.34	28088.47	4.06	2.16	11.42	1039.94	13657.88
FTSE All-Share Chemicals (7)	18023.37	0.04	17028.95	18016.41	18034.56	14238.53	1.79	1.98	28.20	261.18	17619.03
FTSE All-Share Oil, Gas and Coal (14)	6310.48	-0.33	5962.31	6331.12	6225.26	3526.72	3.25	0.75	41.08	108.38	7587.56
FTSE Sector Indices											
Non Financials (352)	**4918.72**	**-0.41**	**4531.15**	**4939.07**	**4926.30**	**83.95**	**3.26**	**1.35**	**22.66**	**100.28**	**8560.14**

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	7232.61	7224.25	7223.63	7219.69	7219.58	7222.81	7229.44	7241.56	7226.47	7243.85	7214.72
FTSE 250	22943.17	22915.72	22957.45	22965.71	22958.41	22939.38	22926.32	22930.20	22978.79	22985.79	22913.28
FTSE SmallCap	7419.95	7430.43	7433.21	7431.01	7430.51	7430.71	7430.75	7428.53	7429.31	7434.12	7419.95
FTSE All-Share	4121.97	4117.53	4118.57	4117.00	4116.71	4117.60	4120.22	4125.80	4120.44	4127.05	4114.35

Time of FTSE 100 Day's high:14:08:15 Day's Low09:29:45 FTSE 100 2010/11 High: 7220.14(11/08/2021) Low: 6407.46(29/01/2021)
Time of FTSE All-Share Day's high:14:08:00 Day's Low09:30:00 FTSE 100 2010/11 High: 4144.51(06/09/2021) Low: 3641.93(29/01/2021)
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FT 30 INDEX

	Oct 15	Oct 14	Oct 13	Oct 12	Oct 11	Yr Ago	High	Low
FT 30	2745.20	2736.90	2713.80	2695.90	2711.00	0.00	2870.10	2450.90
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2736.9	2740.5	2740.5	2740.5	2737.7	2738.4	2741.8	2744.9	2746	2748	2736.9

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

FX: EFFECTIVE INDICES

	Oct 15	Oct 14	Mnth Ago		Oct 18	Oct 15	Mnth Ago
UK	82.54	82.11	82.04				

Source: Bank of England. New Sterling ERI base Jan 2005 = 100. Other indices base average 1990 = 100. Index rebased 1/2/95. for further information about ERIs see www.bankofengland.co.uk

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	39.38	Electronic & Elec Eq	15.63	Equity Invest Instr	7.73
Oil & Gas	38.28	Pharmace & Biotech	13.83	General Retailers	6.64
Industrial Metals &	26.87	Food & Drug Retailer	13.70	Industrial Transport	5.24
Aerospace & Defense	26.43	Basic Materials	13.47	Financial Services	3.71
Support Services	23.83	Construct & Material	13.46	Fixed Line Telecomms	2.74
Beverages	23.54	NON FINANCIALS Index	12.24	Oil & Gas Producers	29.65
Banks	22.85	Mining	12.22	Consumer Goods	-1.66
Tech Hardware & Eq	20.45	Health Care	12.13	Tobacco	-3.47
FTSE SmallCap Index	19.81	FTSE 250 Index	12.11	Nonlife Insurance	-3.73
Chemicals	19.36	Financials	11.91	Health Care Eq & Srv	-4.98
Technology	18.29	FTSE All{HY-}Share Index	11.88	Telecommunications	-5.16
Software & Comp Serv	18.08	FTSE 100 Index	11.51	Leisure Goods	-6.54
Real Est Invest & Se	17.85	Consumer Services	11.23	Food Producers	-7.55
Industrials	17.69	Life Insurance	9.91	Household Goods & Ho	-7.73
Real Est Invest & Tr	16.65	Travel & Leisure	8.97	Mobile Telecomms	-8.39
Industrial Eng	16.54	Utilities	8.70	Automobiles & Parts	-8.99
Media	16.33	Gas Water & Multi	8.68	Personal Goods	-10.89
		Electricity	8.62	Oil Equipment & Serv	-21.65

FTSE GLOBAL EQUITY INDEX SERIES

Oct 18 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9385	825.62	0.8	-0.6	13.4	1292.32	15.2	1.7
FTSE Global All Cap	9385	825.62	0.8	-0.6	13.4	1292.32	15.2	1.7
FTSE Global Large Cap	1796	734.91	1.0	-0.8	12.8	1185.38	14.6	1.8
FTSE Global Mid Cap	2303	1060.49	0.5	0.0	15.7	1561.30	17.4	1.7
FTSE Global Small Cap	5286	1147.27	0.3	0.0	14.0	1619.21	15.4	1.5
FTSE All-World	4099	482.75	0.9	-0.6	13.4	800.00	15.2	1.8
FTSE World	2659	866.06	0.9	-0.8	14.5	1926.18	16.3	1.7
FTSE Global All Cap ex UNITED KINGDOM In	9091	873.33	0.8	-0.6	13.5	1341.61	15.1	1.7
FTSE Global All Cap ex USA	7556	604.96	1.1	-1.4	7.3	1040.31	9.7	2.4
FTSE Global All Cap ex JAPAN	7991	859.05	0.8	0.0	14.3	1356.80	16.1	1.7
FTSE Global All Cap ex Eurozone	8724	870.43	0.8	-0.5	13.6	1333.74	15.3	1.7
FTSE Developed	2208	795.04	0.8	-0.7	14.9	1254.32	16.6	1.7
FTSE Developed All Cap	5839	833.80	0.8	-0.6	14.8	1296.39	16.5	1.6
FTSE Developed Large Cap	884	743.16	0.9	-0.9	14.6	1193.44	16.4	1.7
FTSE Developed Europe Large Cap	237	440.46	1.0	0.0	12.1	844.06	14.9	2.5
FTSE Developed Europe Mid Cap	352	769.86	0.7	-2.0	10.2	1285.23	12.5	2.2
FTSE Dev Europe Small Cap	724	1118.41	1.2	-0.7	16.0	1793.22	18.1	1.8
FTSE North America Large Cap	254	984.25	0.8	-0.3	18.5	1453.31	19.9	1.3
FTSE North America Mid Cap	414	1271.00	0.3	1.8	19.9	1731.29	21.2	1.4
FTSE North America Small Cap	1341	1323.16	-0.1	1.3	15.6	1733.80	16.7	1.2
FTSE North America	668	642.95	0.7	0.0	18.8	970.14	20.1	1.4
FTSE Developed ex North America	1540	314.32	1.0	-2.4	7.3	582.53	9.7	2.4
FTSE Japan Large Cap	172	461.64	1.5	-7.3	1.8	660.90	3.8	2.0
FTSE Japan Mid Cap	338	655.65	1.5	-7.8	1.7	890.70	3.8	2.1
FTSE Global wi JAPAN Small Cap	884	722.56	1.7	-8.0	1.3	1017.00	3.4	2.3
FTSE Japan	510	190.34	1.5	-7.4	1.7	305.06	3.7	2.0
FTSE Asia Pacific Large Cap ex Japan	957	858.24	1.3	-0.6	-1.9	1515.18	0.0	2.2
FTSE Asia Pacific Mid Cap ex Japan	919	1149.01	0.6	-0.3	11.9	1951.09	14.2	2.5
FTSE Asia Pacific Small Cap ex Japan	2044	708.91	0.9	-2.2	9.1	1174.07	11.1	2.1
FTSE Asia Pacific Ex Japan	1876	679.44	1.2	-0.6	-0.5	1274.52	1.4	2.2
FTSE Emerging All Cap	3546	912.86	1.3	0.1	2.6	1535.32	4.9	2.4
FTSE Emerging Large Cap	912	861.16	1.4	0.6	0.4	1456.88	2.6	2.3
FTSE Emerging Mid Cap	979	1180.24	0.7	-0.6	12.7	1991.49	15.6	2.9
FTSE Emerging Small Cap	1655	940.87	0.9	-2.5	10.4	1517.17	12.8	2.3
FTSE Emerging Europe	87	474.92	0.7	5.3	28.2	943.37	34.3	4.4
FTSE Latin America All Cap	251	769.24	2.1	-4.6	-6.4	1374.23	-2.4	4.8
FTSE Middle East and Africa All Cap	333	796.85	0.5	2.7	22.0	1412.58	25.1	2.6
FTSE Global wi UNITED KINGDOM All Cap In	294	358.39	1.0	1.7	13.1	705.02	16.4	3.2
FTSE Global wi USA All Cap	1829	1110.14	0.6	0.0	18.2	1580.82	19.4	1.3
FTSE Europe All Cap	1478	530.05	0.9	-0.3	12.5	975.75	15.2	2.4
FTSE Eurozone All Cap	661	517.40	0.9	-1.3	11.6	945.95	14.0	2.1
FTSE EDHEC-Risk Efficient All-World	4099	539.69	0.5	-0.2	14.3	827.29	16.3	2.0
FTSE EDHEC-Risk Efficient Developed Europe	589	413.37	0.8	-1.3	10.7	704.08	13.0	2.2
Oil & Gas	137	348.27	0.9	12.4	35.0	674.79	39.9	3.7
Oil & Gas Producers	96	334.15	0.8	13.4	38.3	662.44	43.5	3.8

Oct 18 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	26	259.07	1.2	1.2	36.9	456.46	42.1	4.4
Basic Materials	370	672.95	0.8	0.8	10.3	1184.02	14.2	3.7
Chemicals	172	964.66	0.6	0.6	10.8	1654.11	13.0	2.1
Forestry & Paper	21	299.12	-0.5	-0.5	-5.4	582.46	-3.2	2.8
Industrial Metals & Mining	97	561.11	1.7	1.7	19.7	1013.61	26.0	5.4
Mining	80	932.91	0.7	0.7	5.9	1709.89	11.9	5.7
Industrials	757	590.29	1.1	1.1	12.7	921.38	14.1	1.5
Construction & Materials	145	703.66	1.0	1.0	14.2	1157.36	16.1	1.9
Aerospace & Defense	35	843.74	1.1	1.1	15.1	1293.90	16.3	1.3
General Industrials	72	277.33	0.7	0.7	9.6	476.96	11.5	2.1
Electronic & Electrical Equipment	143	747.03	1.5	1.5	11.7	1055.98	12.9	1.2
Industrial Engineering	147	1120.66	1.6	1.6	9.3	1742.40	10.8	1.6
Industrial Transportation	126	1037.11	1.0	1.0	13.1	1631.16	14.7	1.6
Support Services	89	741.27	1.1	1.1	15.3	1086.96	16.3	1.0
Consumer Goods	539	652.40	0.7	0.7	6.8	1071.28	8.5	1.9
Automobiles & Parts	127	717.78	2.0	2.0	17.2	1141.02	18.4	1.0
Beverages	68	758.06	-0.3	-0.3	2.6	1256.48	4.3	2.2
Food Producers	132	743.75	0.0	0.0	3.6	1251.17	5.8	2.3
Household Goods & Home Construction	61	594.97	0.5	0.5	3.3	973.84	5.3	2.4
Leisure Goods	47	312.37	1.0	1.0	-5.4	435.70	-4.4	1.2
Personal Goods	89	1112.97	0.4	0.4	5.6	1679.60	6.8	1.4
Tobacco	15	985.65	0.4	0.4	8.5	2619.75	13.4	6.2
Health Care	338	746.08	0.5	0.5	8.7	1167.26	10.4	1.6
Health Care Equipment & Services	129	1565.34	0.8	0.8	12.5	1900.88	13.3	0.8
Pharmaceuticals & Biotechnology	209	471.17	0.4	0.4	6.0	787.82	8.1	2.3
Consumer Services	454	720.02	1.2	1.2	4.4	1015.87	5.1	0.8
Food & Drug Retailers	70	332.52	0.8	0.8	11.3	515.38	13.7	2.3
General Retailers	157	1292.58	1.9	1.9	2.1	1749.30	2.6	0.7
Media	84	499.40	0.0	0.0	6.4	709.39	7.2	0.8
Travel & Leisure	143	533.24	0.3	0.3	7.1	769.04	7.8	0.8
Telecommunication	88	150.90	0.3	0.3	-2.0	341.11	1.6	4.2
Fixed Line Telecommuniations	35	113.20	0.1	0.1	-2.7	291.38	2.4	5.9
Mobile Telecommunications	53	182.28	0.5	0.5	-1.0	356.69	1.5	3.3
Utilities	197	321.78	-0.1	-0.1	0.3	726.54	3.2	3.4
Electricity	141	362.73	-0.1	-0.1	0.5	807.41	3.3	3.3
Gas Water & Multiutilities	56	320.83	0.0	0.0	0.1	747.81	3.0	3.4
Financials	871	301.75	1.2	1.2	19.6	560.99	22.4	2.5
Banks	267	233.40	1.4	1.4	26.6	478.84	30.2	2.9
Nonlife Insurance	72	344.33	0.5	0.5	15.1	556.93	18.4	2.9
Life Insurance	54	250.83	0.6	0.6	7.9	463.97	11.2	3.3
Financial Services	215	499.48	1.6	1.6	18.9	744.29	20.3	1.4
Technology	348	626.42	0.7	0.7	20.4	808.87	21.2	0.7
Software & Computer Services	187	1057.35	0.4	0.4	25.8	1270.83	26.3	0.4
Technology Hardware & Equipment	161	485.58	1.2	1.2	13.9	671.50	15.0	1.2
Alternative Energy	15	227.45	1.5	1.5	-15.3	325.02	-14.9	0.5
Real Estate Investment & Services	162	355.42	0.6	0.6	-0.9	671.49	1.5	2.7
Real Estate Investment Trusts	101	545.02	0.2	0.2	19.9	1229.95	22.7	3.0
FTSE Global Large Cap	1796	734.91	1.0	1.0	12.8	1185.38	14.6	1.8

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

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1306	-9.50	Kingfisher PLC	328.30	-4.00
Abrdn PLC	257.00	-	Land Securities Group PLC	696.40	-15.20
Admiral Group PLC	2986	-15.00	Legal & General Group PLC	276.30	-2.80
Anglo American PLC	2826	-86.00	Lloyds Banking Group PLC	49.28	0.16
Antofagasta PLC	1470	-37.50	London Stock Exchange Group PLC	7922	14.00
Ashtead Group PLC	5934	6.00	M&G PLC	197.85	-1.40
Associated British Foods PLC	1813.5	-4.50	Meggitt PLC	749.80	-2.20
Astrazeneca PLC	8699	-96.00	Melrose Industries PLC	163.45	-2.75
Auto Trader Group PLC	595.60	-2.40	Mondi PLC	1770.5	-5.50
Avast PLC	563.00	2.40	Morrison (Wm) Supermarkets PLC	285.30	-0.10
Aveva Group PLC	3624	-7.00	National Grid PLC	905.90	8.70
Aviva PLC	393.50	-6.20	Natwest Group PLC	233.20	-0.70
B&M European Value Retail S.A.	596.40	1.00	Next PLC	7928	60.00
Bae Systems PLC	593.80	-5.60	Ocado Group PLC	1796	-1.50
Barclays PLC	199.46	1.64	Pearson PLC	615.20	-5.20
Barratt Developments PLC	677.80	-11.60	Pershing Square Holdings LTD	2880	45.00
Berkeley Group Holdings (The) PLC	4273	-17.00	Persimmon PLC	2657	-35.00
Bhp Group PLC	1987.6	-1.60	Phoenix Group Holdings PLC	662.60	1.60
BP PLC	361.45	-2.15	Polymetal International PLC	1343.5	13.50
British American Tobacco PLC	2583.5	-15.50	Prudential PLC	1433	-21.50
British Land Company PLC	496.70	-6.70	Reckitt Benckiser Group PLC	5500	52.00
Bt Group PLC	137.45	-3.15	Relx PLC	2192	5.00
Bunzl PLC	2538	17.00	Rentokil Initial PLC	592.60	-1.00
Burberry Group PLC	1836.5	-36.00	Rightmove PLC	695.80	2.80
Coca-Cola Hbc AG	2470	-40.00	Rio Tinto PLC	5002	-36.00
Compass Group PLC	1457	-33.00	Rolls-Royce Holdings PLC	142.64	-1.92
Crh PLC	3437	1.00	Royal Dutch Shell PLC	1790	-5.00
Croda International PLC	8846	38.00	Royal Dutch Shell PLC	1768.2	-3.80
Dcc PLC	5958	-80.00	Royal Mail PLC	421.70	-0.20
Diageo PLC	3607.5	-8.00	Sage Group PLC	717.80	4.00
Entain PLC	2124	27.00	Sainsbury (J) PLC	294.70	-1.90
Evraz PLC	629.60	12.20	Schroders PLC	3576	-23.00
Experian PLC	3229	26.00	Scottish Mortgage Investment Trust PLC	1438	11.50
Ferguson PLC	10550	-45.00	Segro PLC	1273.5	1.00
Flutter Entertainment PLC	14380	-240.00	Severn Trent PLC	2621	17.00
Fresnillo PLC	863.00	17.40	Smith & Nephew PLC	1261	-16.00
Glaxosmithkline PLC	1395.6	-4.00	Smith (Ds) PLC	374.30	-4.40
Glencore PLC	392.45	1.90	Smiths Group PLC	1402	-14.00
Halma PLC	2865	-20.00	Smurfit Kappa Group PLC	3675	-84.00
Hargreaves Lansdown PLC	1508.5	37.50	Spirax-Sarco Engineering PLC	15015	105.00
Hikma Pharmaceuticals PLC	2348	5.00	Sse PLC	1585.5	12.50
HSBC Holdings PLC	432.80	-1.40	St. James's Place PLC	1529	8.50
Imperial Brands PLC	1556.5	-14.00	Standard Chartered PLC	493.20	0.70
Informa PLC	533.00	-16.40	Taylor Wimpey PLC	155.40	-1.80
Intercontinental Hotels Group PLC	5048	-50.00	Tesco PLC	269.50	1.60
Intermediate Capital Group PLC	2091	-11.00	Unilever PLC	3838.5	-15.00
International Consolidated Airlines Group S.A.	175.72	-7.20	United Utilities Group PLC	987.00	6.00
Intertek Group PLC	4944	-42.00	Vodafone Group PLC	109.44	-1.00
Itv PLC	103.45	-0.55	Whitbread PLC	3287	-82.00
Jd Sports Fashion PLC	1034.5	-8.50	Wpp PLC	984.00	-6.20
Johnson Matthey PLC	2691	-35.00			

UK STOCK MARKET TRADING DATA

	Oct 18	Oct 15	Oct 14	Oct 13	Oct 12	Yr Ago
Order Book Turnover (m)	264.26	249.78	249.78	122.14	249.25	309.65
Order Book Bargains	871432.00	848545.00	848545.00	907978.00	970993.00	886761.00
Order Book Shares Traded (m)	1114.00	1435.00	1435.00	1398.00	1443.00	1428.00
Total Equity Turnover (£m)	4031.21	5020.61	5020.61	5050.75	5487.26	5022.22
Total Mkt Bargains	1086342.00	1050735.00	1050735.00	1115705.00	1195623.00	1087902.00
Total Shares Traded (m)	3885.00	4169.00	4169.00	4320.00	4588.00	4700.00

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

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
For all queries e-mail ft.reader.enquiries@morningstar.com

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UK RIGHTS OFFERS

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

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

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Bioventix	Pre	10.931	10.314	0.118	8.225	129.220	139.410	62.00000	52.00000	Nov 12	105.000	88.000
Dotdigital	Int	1.435	1.878	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gabelli Merger Plus+ Trust	Int	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Leeds Group	Pre	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Light Science Technologies Holdings	Pre	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Science Thermatics	Pre	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
10/15	[illegible]	[illegible]	LST	Light Science Technologies Holdings PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10/12	[illegible]	[illegible]	TMTA	TMT Acquisition PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10/11	[illegible]	[illegible]	MEX	Tortilla Mexican Grill PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10/05	[illegible]	[illegible]	WPS	WAG Payment Solutions PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10/01	[illegible]	[illegible]	BAY	Bay Capital PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/30	[illegible]	[illegible]	MTEC	Made Tech Group PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/29	[illegible]	[illegible]	PEEL	Peel Hunt Ltd	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/28	[illegible]	[illegible]	PHLL	Petershill Partners PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/27	[illegible]	[illegible]	ALK	Alkemy Capital Investments PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
09/15	[illegible]	[illegible]	NZI	Net Zero Infrastructure PLC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
ShenwanHong	0.10	0.09	0.01	11.49	0.01	14.1	46.27
ITC	262.55	256.55	6.00	2.34	29.60	12.7	13.58
Fuji Hvy Ind	2345.50	2300.00	45.50	1.98	259.50	12.4	11.96
Denso	8152.00	7902.00	250.00	3.16	848.00	11.6	3.94
Target	252.13	245.71	6.42	2.61	23.41	10.2	2.29
Nissan Mt	589.80	587.80	2.00	0.34	53.90	10.1	2.99
Panasonic	1400.00	1404.50	-4.50	-0.32	125.00	9.8	-0.96
SouthCpr	64.71	66.21	-1.50	-2.27	5.73	9.7	10.54
ChShenEgy	19.08	17.96	1.12	6.24	1.62	9.3	8.30
AirProd	292.62	292.70	-0.09	-0.03	23.89	8.9	11.75
SBI NewA	497.95	490.60	7.35	1.50	40.05	8.7	9.66
SimonProp	144.15	140.22	3.93	2.80	11.53	8.7	9.74
Tesla Mtrs	859.83	843.03	16.80	1.99	67.89	8.6	13.23
Fanuc	24535.00	24525.00	10.00	0.04	1910.00	8.4	-7.87
SandsCh	17.30	16.70	0.60	3.59	1.28	8.0	14.87
Adobe	617.35	610.09	7.26	1.19	44.28	7.7	-5.67
GoldmSchs	414.78	406.07	8.71	2.14	29.54	7.7	5.99
Richemont	108.80	109.90	-1.10	-1.00	7.65	7.6	9.37
SaicMtr	21.01	20.82	0.19	0.91	1.46	7.5	4.48
BlackRock	902.08	907.26	-5.18	-0.57	62.35	7.4	2.94

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 %
Pwr Cons Corp	7.02	6.58	0.24	3.56	-0.60	-7.9	-13.65
CNNC Intl	6.58	6.34	0.24	3.79	-0.54	-7.6	-4.64
Tata Cons	3647.15	3611.45	35.70	0.99	-245.75	-6.3	-4.72
BT	137.45	140.60	-3.15	-2.24	-9.05	-6.2	-11.96
Citic Secs	18.80	18.92	-0.12	-0.63	-1.16	-5.8	-6.90
Sinopec Oil	2.48	2.36	0.12	5.08	-0.15	-5.7	-3.50
Ch Coms Cons	4.14	4.16	-0.02	-0.48	-0.25	-5.7	-4.03
Telefonica	3.77	3.80	-0.03	-0.83	-0.22	-5.6	-9.73
IM Baotou Stl	2.92	2.91	0.01	0.34	-0.16	-5.2	-13.61
ChMrchSecs	17.49	17.46	0.03	0.17	-0.93	-5.0	-6.77
Biogen	271.84	281.19	-9.35	-3.33	-13.75	-4.8	-9.40
MediaTek	867.00	862.00	5.00	0.58	-43.00	-4.7	-7.77
Delta	41.22	40.99	0.23	0.56	-1.97	-4.6	2.79
Boeing	216.47	217.04	-0.57	-0.26	-9.98	-4.4	1.44
CSR	3.58	3.59	-0.01	-0.28	-0.16	-4.3	-4.01
Ch Rail Cons	5.21	5.20	0.01	0.19	-0.23	-4.2	-3.35
GuosenSec	11.58	11.48	0.10	0.87	-0.50	-4.1	-2.93
Bayer	46.62	47.89	-1.27	-2.65	-2.00	-4.1	-2.38
ChShpbldng	4.29	4.25	0.04	0.94	-0.18	-4.0	-6.13
Prudential	1433.00	1454.50	-21.50	-1.48	-55.00	-3.7	-1.01

Based on the FT Global 500 companies in local currency

INTEREST RATES: OFFICIAL

Oct 18	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

COMMODITIES

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	217.05	0.21	-0.40	-4.54	-1.94	-0.35
Corporates(£)	392.78	0.79	-0.42	-3.92	-2.68	-0.52
Corporates($)	336.71	0.23	-0.42	-1.41	-0.42	-1.41
Corporates(€)	242.00	0.09	-0.49	-0.89	-0.98	0.37
Eurozone Sov(€)	255.25	0.34	-0.20	-3.13	-1.24	-2.69
Gilts(£)	352.43	1.54	0.50	-7.07	-3.36	-6.29
Global Inflation-Lkd	318.77	0.60	0.92	1.36	-2.72	5.58
Markit iBoxx £ Non-Gilts	380.19	0.76	-0.32	-3.73	-2.48	-0.99
Overall ($)	278.23	0.22	-0.33	-2.26	-0.33	-2.26
Overall(£)	356.15	1.32	0.27	-6.17	-3.13	-4.86
Overall(€)	247.33	0.27	-0.30	-2.61	-1.19	-2.03
Treasuries ($)	254.82	0.25	-0.25	-2.87	-0.25	-2.87
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	803.78	8.04	-	-	3.88	30.04
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	257.07	-11.96	-1.82	-	274.80	239.25
Europe 5Y	50.81	-2.16	-0.15	-	54.10	48.54
Japan 5Y	51.47	-1.26	0.87	-	52.84	46.63
Senior Financials 5Y	57.94	-2.26	0.43	-	61.49	54.89
Markit CDX						
Emerging Markets 5Y	181.02	-4.74	-0.02	-	189.47	168.20
Nth Amer High Yld 5Y	300.61	-10.62	-2.97	-	314.83	291.98
Nth Amer Inv Grade 5Y	52.16	-1.91	-1.08	-	54.95	50.87

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

BONDS: INDEX-LINKED

	Price Oct 14	Yield Oct 14	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	127.46	-0.965	-0.855	0.30	5.25	-	-
Fr 2.10%' 23	107.75	-2.137	-2.195	0.29	18.05	-	-
Swe 1.00%' 25	121.58	-1.987	-2.052	0.18	34.98	-	-
UK 1.875%' 22	108.41	-5.414	-5.279	0.19	15.74	-	-
UK 2.50%' 24	365.62	-3.622	-3.504	0.30	6.82	-	-
UK 2.00%' 35	307.55	-2.734	-2.650	2.58	9.08	-	-
US 0.625%' 23	105.00	-2.624	-2.550	0.47	47.03	-	-
US 3.625%' 28	134.35	-1.403	-1.353	0.73	16.78	-	-

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	1.68	-	-	Netherlands	-0.40	-	-
Austria	0.23	-	-	New Zealand	2.05	-	-
Canada	-	-	-	Norway	-	-	-
Denmark	-1.69	-	-	Portugal	-0.30	-	-
Finland	0.00	-	-	Spain	-1.40	-	-
Germany	-	-	-	Sweden	-1.80	-	-
Ireland	-	-	-	Switzerland	-	-	-
Italy	0.77	-	-	United Kingdom	-	-	-
Japan	0.21	-	-	United States	-	-	-

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

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
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

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

VOLATILITY INDICES

	Oct 18	Day Chng	Prev	52 wk high	52 wk low
VIX	16.52	0.22	16.30	41.16	14.10
VXD	16.10	1.20	14.90	47.53	2.67
VXN	19.08	0.57	18.51	43.45	18.01
VDAX	16.72	0.78	15.93	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	102.44	0.05	0.00	0.01	0.01	-0.10
	05/32	1.25	95.82	1.68	0.06	0.15	0.15	0.72
Austria	05/34	2.40	126.97	0.23	0.03	0.06	0.04	0.42
	02/47	1.50	120.61	0.62	0.02	0.07	0.05	0.52
Belgium	10/23	0.20	101.83	-0.70	0.01	0.00	-0.02	-0.03
Canada	-	-	-	-	-	-	-	-
	03/24	2.25	103.62	0.72	0.07	0.10	0.07	0.43

BONDS: GLOBAL INVESTMENT GRADE

	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

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

GILTS: UK CASH MARKET

Oct 18	Price £	Red Yield	Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 1.75pc '22	101.06	0.54	38.46	45.95	5300.00	-1000.00	105.62	101.06	29.68
Tr 0.75pc '23	100.21	0.63	40.00	36.96	350.00	-1360.00	101.08	99.96	33.73
Tr 0.125pc '24	98.69	0.71	26.79	22.41	162.96	-1283.33	100.64	98.69	34.12
Tr 2pc '25	104.85	0.73	15.87	10.61	102.78	-763.64	122.46	99.56	38.33
Tr 0.125pc '26	97.30	0.77	13.24	6.94	92.50	-2666.67	100.87	97.30	33.89
Tr 1.25pc '27	102.42	0.82	9.33	0.00	70.83	2633.33	108.49	102.42	39.34
Tr 0.875pc '29	99.25	0.97	4.30	-4.90	49.23	646.15	106.70	98.61	41.87
Tr 4.25pc '32	131.07	1.14	2.70	-5.79	39.02	293.10	145.25	130.34	38.71
Tr 4.25pc '36	139.31	1.25	0.81	-8.09	30.21	160.42	155.96	137.65	30.41
Tr 4.5pc '42	157.63	1.35	0.00	-9.40	25.00	104.55	179.20	154.49	27.21
Tr 3.75pc '52	160.02	1.36	0.74	-9.33	24.77	97.10	187.44	155.15	24.10
Tr 4pc '60	182.73	1.27	0.00	-11.19	24.51	92.42	215.91	175.55	24.12

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

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Oct 15	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	86.54	-0.11	2453.08	-0.77	-1.54	0.58
2 5 - 10 Years	175.95	-0.30	3644.08	-2.17	-4.98	0.91
3 10 - 15 Years	206.17	-0.56	4586.21	-3.43	-7.25	1.20
4 5 - 15 Years	182.59	-0.39	3876.78	-2.59	-5.64	1.04
5 Over 15 Years	350.70	-1.43	5862.11	-6.15	-11.90	1.32
7 All stocks	177.50	-0.76	3868.05	-3.65	-7.44	1.22

Index Linked	Oct 15	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	313.56	0.04	0.23	2.75	2614.87	0.23	4.03
2 Over 5 years	873.81	-1.15	-2.94	3.04	6625.17	-2.94	3.41
3 5-15 years	528.87	-0.14	-1.12	0.97	4239.32	-1.12	1.74
4 Over 15 years	1161.09	-1.49	-3.53	3.65	8560.63	-3.53	3.88
5 All stocks	774.40	-1.03	-2.61	2.87	5983.69	-2.61	3.33

Yield Indices	Oct 15	Oct 14	Yr ago		Oct 15	Oct 14	Yr ago
5 Yrs	0.71	0.67	-0.11	20 Yrs	1.38	1.32	0.69
10 Yrs	1.08	1.03	0.22	45 Yrs	1.21	1.14	0.62
15 Yrs	1.30	1.24	0.53				

Real yield	inflation 0% Oct 15	Dur yrs	Previous	Yr ago	inflation 5% Oct 15	Dur yrs	Previous	Yr ago
Up to 5 yrs	-3.61	2.54	-3.58	-2.78	-3.92	2.54	-3.91	-3.11
Over 5 yrs	-2.38	23.82	-2.43	-2.34	-2.39	23.86	-2.44	-2.36
5-15 yrs	-2.87	9.15	-2.88	-2.91	-2.95	9.15	-2.96	-2.98
Over 15 yrs	-2.33	28.43	-2.38	-2.28	-2.33	28.43	-2.39	-2.29
All stocks	-2.39	21.67	-2.44	-2.35	-2.41	21.73	-2.46	-2.37

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

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

McGregor's starry inferno

DANCE

The Dante Project
Royal Opera House, London
★★★★☆

Louise Levene

Edward Watson and Sarah Lamb perform 'The Dante Project' Andrej Uspenski

Wayne McGregor, always keen on creative alliances, approached Thomas Adès in 2014 asking for ideas for a full evening work. The result, *The Dante Project*, had a partial premiere (of "Inferno") in Los Angeles in 2019 during the company's US tour, but all three sections were finally unveiled at Covent Garden last Thursday with the composer himself in the pit, guiding the massive, 75-strong orchestra through his multi-layered, mesmerising score.

Adès, who first devoured *The Divine Comedy* as a bookish teenager, tailors his music very precisely to Dante's narrative and quotes freely from the work of other composers inspired by it. The dazzling "Inferno" is underpinned by playful garblings of Liszt (including *Dante Sonata* and many shorter pieces familiar from Kenneth MacMillan's *Mayerling*) and ends with a shameless Offenbach pastiche for the Thieves, a no-holds-barred display of virtuosity by the Royal Ballet's men. "Purgatory" includes samplings of the chants sung at the Ades Synagogue in Jerusalem, closing with an exultant "Ascent" like a joyous peal of church bells.

Dante didn't so much *inspire* visual artists — Botticelli, Blake, Doré — as *brief* them with detailed, almost cartographic descriptions, but designer Tacita Dean and her army of photographers, editors and colourists take a more abstract approach. There is a chalkboard of cliffs and chasms for the "Inferno", a bleached-out 25ft street scene for God's waiting room and one of her giant video installations for the concentric circles of Paradise — part music visualiser, part colonoscopy. Lighting designers Lucy Carter and Simon Bennison dramatise the space with golden sidelights, gory follow-spots and a large helping of smoke that gives substance to the cross-beams of light.

Interviewed in the programme, Dean humblebrags about her indifference to sartorial matters, which might explain some of her costume choices. The unitards for the ensemble — dusty blacks for the dammed, white lamé for the redeemed — are functional and flattering but Edward Watson's Dante (his last starring role with the Royal Ballet) is saddled with a wardrobe of ill-fitting house frocks.

Watson, McGregor's muse for more than two decades, occasionally unfurls those long, expressive limbs and is always a compelling stage presence but spends much of the ballet expressing pity and terror on the touchline or contemplating his childhood self romping with his beloved Beatrice (heartwarming or emetic depending on your tastes). Watson earned the biggest cheers for his swan song, but the first night boasted 14 principal dancers. The ballet showcased Matthew Ball and Francesca Hayward (a powerful duet as Paolo and Francesca), Calvin Richardson (lurching thrillingly through "Ulysses") and James Hay (in "The Pope's Adagio") while stars such as Natalia Osipova and Yasmine Naghdi, relegated to the chorus, whirled through eternity in a long loop of travelling lifts.

McGregor, once famous for turning dancers inside out, scorns to illustrate the grotesque torments of the Inferno but, like Doré, is clearly entranced by the sheer physicality of the damned. His language for Purgatory and Paradise can seem a mite bland in comparison but he builds to a big finish: Sarah Lamb's radiant Beatrice *bourrées* into the gloom; the wonderstruck Dante drifts downstage; a massive flash of light sweeps the auditorium and the ovation begins.

To October 30, roh.org.uk

THE LIFE OF A SONG

English electronica met Sinatra-style vocals in Joy Division's 1980 song 'Love Will Tear Us Apart'. David Honigmann tells its story

ft.com/life-arts/life-of-a-song

Fanfare heralds an unfolding disaster

OPERA

Götterdämmerung
Deutsche Oper Berlin
★★☆☆☆

Shirley Apthorp

As Hunding calls his people to bring arms, hunting horns bark out rough calls in clashing intervals. For Sunday's premiere at the Deutsche Oper Berlin, conductor Donald Runnicles and director Stefan Herheim have the horn players in illuminated boxes above the sides of the stage. Behind mesh walls you can see the instruments, with their strange curves and unfamiliar shapes, as the players give their all.

It is depressing that this marked the high point of the house's new *Götterdämmerung*. A few minutes of thrilling brass is not much for all those hours of slowly unfolding disaster.

To be fair, much of the singing is good. Clay Hilley's Siegfried has extraordinary energy and stamina, and he hurls himself at the role with reckless courage and skill. As his Brünnhilde, Nina Stemme is well past the youthful energy phase of her career, but she husbands her resources with care and mastery, and manages the same utter commitment with added charisma. It is impossible not to love her when she sings. Okka von der Damerau's Waltraute is both passionate and refined; Jürgen Linn's Alberich is a little frightening. Gidon Saks (Hagen) is announced as indisposed, and sounds it.

A pity, then, that Stefan Herheim's staging has so very little to tell us. The vast piles of old suitcases and the grand piano that occupy the stage are recycled from *Das Rheingold* and *Die Walküre*, as is a much-employed white sheet, and even if you have not seen the earlier premieres, the sight of them soon becomes grimly wearying.

Herheim dresses a clutch of supernumeraries as clones of the Deutsche Oper audience, and wheels in elements of the house foyer, as well as bringing up the house lights at strategic moments. We, the public, are in focus — this is about us. That might be interesting if it had not been already done thousands of times.

The extras die, undress, wave their arms around, do jazz hands to represent fire, dress up as antiquated gods, or just stand around looking lost.

Siegfried, in winged helmet, breastplate and leggings, sinks into and rises from the bowels of the grand piano, which is "played" at various points by most of the cast. Herheim seems lost for inspiration, reduced to self-quotations and empty gestures.

Nor can Runnicles save the evening. There is no point at which the music becomes magical, no shimmer, no startling insights or polish. The orchestra plays badly for him, with questionable wind intonation and ragged entries; this is audibly a problematic relationship.

In the final act, Hagen hacks the head from dead Siegfried (he was, of course, buried in the piano) and Gutrune re-enacts Salome's erotic necrophilia with it. How could this house, home to Goetz Friedrich's legendary *Ring*, let things come to this?

Siegfried will follow in November, the order of things messed up by coronavirus, and the entire cycle will ensue. Herheim will have to perform miracles in order to save this one.

To October 31, deutscheoperberlin.de

Nina Stemme as Brünnhilde in 'Götterdämmerung' — Bernd Uhlig

Stendahl makes a lavish spectacle

DANCE

The Red and the Black
Paris Opera Ballet
★★★☆☆

Laura Cappelle

Costly and risky: three-act ballets are a nail-biting investment for dance companies. The Paris Opera Ballet spared no expense to ensure that its first new one in 13 years, Pierre Lacotte's *The Red and the Black*, based on Stendhal's novel of the same name, would at least be spectacular. Some 400 costumes are trotted out over 16 tableaux; nearly 100 dancers, out of the 154-strong ensemble, are involved.

As a result, *The Red and the Black* has the look and texture of a classic — but it's unlikely to become one, the fault lying with its outdated storytelling. At 89, Lacotte is a giant of French ballet, best known for his reinventions of 19th-century ballets including *La Sylphide* and *Paquita*. His stagecraft is evident in effortless patterns for the waltzing, heel-clicking corps de ballet, but Stendhal's novel has been emptied of what would make it a worthy drama.

On paper, the characters add up to a complex study of French society in the 1820s under the Bourbon restoration. In Lacotte's adaptation, however, all social dynamics have been flattened, leaving balletic archetypes. The highly ambitious Julien Sorel, whose great love in the novel is arguably Napoleon, is here an off-the-shelf romantic hero.

Sorel's entanglements with the three leading women pay tribute to various ballets without ever acquiring an inner urgency. The religious Madame de Rênal (Amandine Albisson), who prays even mid-pas de deux, appears to Julien as a *Giselle*-like vision when he is exiled to a seminary. Mathilde de la Mole, while amusingly snooty in Myriam Ould-Braham's interpretation, swoons when Julien pulls a dagger on her in the bedroom, a scene reminiscent of John Cranko's *Onegin* and Kenneth MacMillan's work.

Amandine Albisson and Stéphane Bullion in 'The Red and the Black'

The unlikely heroine turns out to be Elisa, Madame de Rênal's jealous chambermaid, played with verve by Valentine Colasante. Yet even her solo work has little to say about the character, since most of the ballet's variations consist of classroom steps and exacting footwork.

Lacotte's insistence on following the plot literally also makes for plenty of awkward, silent transitions in the patchwork Massenet score while new sets are wheeled out behind the curtain. Act Three, especially, has no fewer than nine different scenes, with aimless corps numbers influenced by Roland Petit. While the many backdrops (designed by Lacotte himself), inspired by period engravings or hand-drawn in black and white, are stupendous, any dramaturge worth their salt would have killed some of Lacotte's darlings.

The evening's most startling drama came from an injury to Mathieu Ganio, the opening-night Julien, who was replaced midway through Act One by Florian Magnenet. He acquitted himself confidently, down to the trickiest partnering sequences.

Three hours later, Magnenet and Albisson helped Lacotte, visibly moved, out of the wings for a post-show ovation. Why did the Paris Opera Ballet wait 20 years to bring him back after *Paquita*? And why was *The Red and the Black* selected? Ballet commissioning truly works in mysterious ways.

To November 4, operadeparis.fr

FT BIG READ. AUSTRIA

State prosecutors are investigating an allegation that taxpayers' money was used to fund the former chancellor's rise to power. The probe raises concerns that the rule of law is faltering in a key EU state.
By Sam Jones

Rise and fall: the scandal that toppled Sebastian Kurz

In the end, the only thing quicker than the rise of Sebastian Kurz was his downfall. For the past four years, the 35-year-old has been the master of Austrian politics. But a scandal that broke just 12 days ago has brought his second chancellorship to an abrupt end. Police raided ministries across Vienna, revealing the existence of a probe by Austrian state prosecutors into grand corruption at the heart of government. Kurz is its central suspect.

No charges have been brought. But the allegations are explosive. Kurz and a coterie of close allies are suspected of illicitly using taxpayers' money to bribe media organisations into providing positive coverage of the then novice politician, which helped propel him to power in December 2017.

It is a mark of Kurz's success that the political backlash has been so swift. Austria's opposition parties were even willing to contemplate a coalition uniting the far right, greens, socialists and free market liberals just to oust the chancellor and shunt his conservative People's party from power.

"It's a spectacular, sheer political fall. He was so absolutely successful [at winning votes] as a politician in Austria," says Thomas Hofer, a political consultant. "His closest allies and his sternest critics both sort of regarded him with this sense that he could walk on water, if he wanted to."

In Austria's last elections in September 2019, Kurz delivered the People's party one of its biggest ever mandates: 37.5 per cent of the vote. Even after his swift resignation as chancellor on October 9 Kurz is to remain the party's leader, and will head its parliamentary caucus — giving him an automatic seat at the cabinet table. But it is unclear how tenable such a position will be. Vienna is rife with rumour that further revelations are to follow. Investigators have only just finished reviewing the first third of seized materials.

Prosecutors have already produced hundreds of pages of allegations, and released dozens of private messages between Kurz and his allies, plucked from phones and computers seized in a sprawling series of investigations stretching back to 2019. After the latest raids, another 400 pages were released.

Regardless of any legal case that may be brought for bribery or perjury, the two central criminal allegations prosecutors are looking into, the investigation has laid bare an ugly side to Kurz's style of government: a set of disclosures that range from the shocking — political ruthlessness, cynicism and plotting — to the embarrassing, with a superabundance of emojis and cringeworthy proclamations of loyalty. The scandal has breathed new life into the old Habsburg bureaucrats' adage, *jedes Schrifterl ist ein Gifterl* — every little thing put down in writing can be poison.

"Austria [now] knows one thing for certain: that abuse of power, serious systematic corruption, manipulation of the population, perfidy and hypocrisy are what hold the [People's party] together," said Herbert Kickl, head of the far-right Freedom party, at an emergency session of parliament last week.

Austria is a small European country, but one that is central to the EU project. If the rule of law is faltering in Austria, then it is a damning indictment of the EU's political health.

The government — now led by Kurz loyalist Alexander Schallenberg — narrowly survived a vote of no confidence. But the anger among parliamentarians was plain. From the left and right, they criticised what has become known as the "Kurz-system": an alleged network of patronage reaching from the chancellery across the Austrian political, economic and media landscape.

"A new parliamentary committee of inquiry will now investigate to what extent the People's party's abuse of power has impacted the workings of state," says Stephanie Krisper, an MP for the liberal Neos, and a vociferous critic of government corruption. "What is unique is how improperly Sebastian Kurz and his 'new' People's party acted and what their system was willing to do to protect itself. Since day one they have attacked the justice system and investigations against them. It is Orbanesque."

But, notes Krisper: "That power corrupts is well known, and of course, in Austria, it is not just something that began with the [Kurz system]."

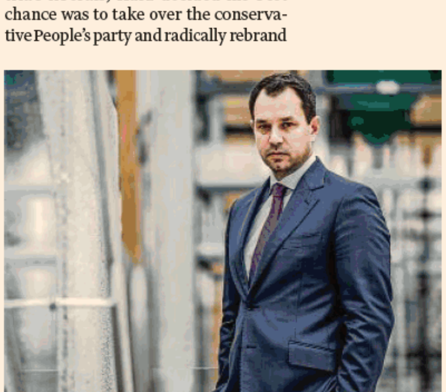
A political outsider

In 2017, Sebastian Kurz was Austria's foreign minister — its youngest ever. But he had ambitions to go further. Along with his close advisers he had watched the success of Emmanuel Macron in France and believed that a similar approach — a political outsider promising reform — was needed in Austria.

Kurz envisaged a movement of his own that would break the cosy consensus politics of the centre ground, and had long stifled real reform. Grand coalitions between the left and right had been the norm of Austrian politics since the war. But as a result, very little ever changed. The education system, many Austrians complain, is in need of radical reform, but for decades has only seen piecemeal changes that both the left and right can agree on.

To shake things up Kurz mixed traditional fiscal conservatism with a dash of social libertarianism, and outflanked the far right by adopting most of its hardline attitudes to immigration.

Having ruled out forming a new party of his own, or allying himself with Austria's liberals, Kurz decided his best chance was to take over the conservative People's party and radically rebrand it. He ditched its stuffy imagery and filled its materials with pictures of the young and borrowed from Labour's Tony Blair in Britain, relabelling it the New People's Party.



Sebastian Kurz, above, is to remain the People party's leader but it is unclear how tenable such a position will be. The government is now led by Kurz loyalist Alexander Schallenberg, right. Below: Thomas Schmid, a close Kurz ally, has emerged at the centre of the case being explored by prosecutors
FT montage

It was all part of what he and his team dubbed "project *Ballhausplatz*", documents released as part of the new investigation by prosecutors show, after the name of the palace that houses the Austrian chancellery. The challenge was to make himself appear both trustworthy and credible — first to the old guard of the People's party and then the electorate. Kurz was barely out of his 20s. He had no university education, and had spent his entire career in politics.

The documents also reveal how ruthless Kurz and his close team could be. For example, he deliberately blocked a 2016 social care reform package agreed between the then leader of the People's party and the Austrian social democrats, because he recognised how popular it might be. His goal was to wreck the leadership of his boss, the incumbent party leader, Reinhold Mitterlehner, who Kurz described as an "arse" in one message to Thomas Schmid, a close ally at the finance ministry. Austria was run by "old fools", Schmid replied.

Schmid has emerged at the centre of the case being explored by prosecutors. He was one of Kurz's most formidable and loyal operators. "I am one of your praetorians," Schmid texted Kurz in one 2017 message. "I will do anything for my chancellor," he said in another.

Schmid was the general secretary at the finance ministry where he oversaw the federal budget. His role gave him access to other departments across the government and, more importantly, the ability to sign off on large expenditures.

According to prosecutors, Schmid is suspected of using his position to illicitly funnel €1.2m of finance ministry funds — taxpayers' money — towards the media group Österreich, run by Wolfgang Fellner. In return the group allegedly ran polls that were highly favourable to the young foreign minister, and painted him as the best new leader of the People's party. The placed polls painted Mitterlehner — the People's party leader — as ineffectual and weak.

"I have never really gone as far as we have," Schmid wrote in a 2018 text message to Johannes Frischmann, Kurz's former spokesperson, that prosecutors cite, in the warrant, as a key piece of evidence. "Ingenious investment. And [Wolfgang] Fellner is a capitalist . . . Whoever pays, procures. I love that."

Österreich has disputed the allegations. It says it received far less money from the finance ministry than investigators have claimed. And it denies outright money — which paid for government adverts — was ever conditional on positive coverage.

'Political witch hunt'

The investigation, which is being undertaken by the central state prosecutor for economic crimes and corruption, the WKStA, has rocked the Austrian political landscape. But in fact, it has been brewing for months.

Schmid's phone, for example — where the WKStA found more than 300,000 messages — was first confiscated in October 2019. For the past two years, intrigue upon intrigue gathered around the Kurz government.

The Schmid-Österreich affair is in fact a tale of at least five other interlocking alleged conspiracies:

● The Ibiza affair, in which former vice-chancellor and then head of the far-right Freedom party, Heinz-Christian Strache, was filmed on the Balearic island in 2019 soliciting what he thought was Russian help to influence the Austrian media. A sting operation caught him telling a woman he believed to represent a powerful Russian oligarch that in Austria, political power was obtained through money and corruption. He suggested the Russians buy the country's biggest newspaper, make it more positive towards him, and in return he would dole out political favours. The revelations led to the collapse of the first Kurz government — a coalition with Strache's Freedom party.

'I can tell you which companies are social democrat and which are People's party, it really does work like that'

● The Pilnacek case, in which a top justice ministry official linked to Kurz is alleged to have leaked sensitive investigatory information.

● The Casinos case, in which it is alleged People's party and Freedom party officials were bribed by the Austrian gambling industry.

● Wirecard's chief operating officer, Jan Marsalek, was receiving classified information from Austrian intelligence. Some officials have been charged with receiving bribes.

● The ÖBAG perjury case, in which Kurz is alleged to have gifted control of the state holding company, ÖBAG, to Schmid — a highly lucrative role — and then misled parliament about his role in influencing the appointment process.

In probing these matters, the WKStA — and a parallel parliamentary investigatory committee — have slowly gathered reams of evidence.

For Kurz and his supporters, the prosecutorial project has been nakedly political. They allege the WKStA has selectively used evidence, and sought any excuse it can to try and gain warrants to go after People's party officials. The prosecutor has had a poor recent record of losing cases, they note, adding that despite the series of accusations from the WKStA few charges have been brought against the Kurz government.

Kurz and his allies have been accused of trying to hamper the process — a gambit that has raised the political stakes and led to allegations of evidence tampering and attempts to thwart the course of justice.

'What is unique is how improperly Kurz and his party acted and what the system was willing to do to protect itself'

A spokesperson for Kurz declined a request for interview. The former chancellor has denied wrongdoing, and has indicated he will waive his parliamentary immunity to allow prosecutors to continue to look into his conduct in office. Schmid resigned as chief executive of ÖBAG earlier this year. He too has denied any wrongdoing.

The scandal republic

In 1985, Der Spiegel caused a sensation in Austria, when in an editorial it dubbed the country *Die Skandalrepublik*. The German magazine listed a series of investigations and allegations of corruption in Austrian business and political life. Almost four decades on, the current set of alleged misdemeanours make those of the mid-1980s seem quaint. But they also suggest an enduring political mindset.

"Throughout Austrian political history you have these kind of incidents," says Marcus How, head of analysis at the central European political consultancy VE Insights. "Really you could probably tell the entire history of modern Austria just through the history of its scandals. There have been so many."

Indeed, many in Austria have been quick to draw parallels with Kurz's alleged payments for positive coverage with an alleged scheme to do the same that entangled social democratic politicians just over a decade ago. "Austria likes to market itself as a mini-Germany but really it is more of a [central] eastern European or even Balkan country in its culture and structures — and the way in which they are misused," says How.

In Austria this system in which power is exercised through allies is known as the *Parteibuchwirtschaft*. As part of it, loyalists are levered into key positions of influence across society by whoever sits at the top. When the social democrats are in power, social democrats get the big jobs. And when the People's party is in control, positions go to its placemen.

"In Austria, every company, every institution, really has a political orientation of its own," says one senior People's party strategist. "It's the legacy of how the country was pulled together after the war. I can tell you which companies are social democrat and which are People's party, it really does work like that."

"In a sense it's a very catholic legacy too," says How. "A sort of counter-reformation style of power with guilds and societies and fraternities that all work behind the scenes."

Kurz, if anything, says How, had to work extra hard to navigate this tradition, because of his youth and lack of a strong base within the People's party. The aggressiveness of his extremely-tightly knit inner circle — figures such as Schmid — in trying to manoeuvre a new, young generation of Kurz ultra-loyalists into positions of influence, and their apparent lack of scruples in doing so, is the driving force behind much of the alleged wrongdoings.

"The 'Kurz-system' as the opposition frames it, is actually something that reaches far back, farther back than Kurz," says Hofer. "All Kurz [allegedly] really did is take it to another level."

FINANCIAL TIMES
'Without fear and without favour'
TUESDAY 19 OCTOBER 2021

Why the world needs a Bill of Rights on AI

For the first time, decisions on humans are being made by machines

Soon after the US constitution was ratified, the Bill of Rights added specific guarantees on freedom of expression and assembly, and rights to fair trials — aiming to set limits on the powers of the government that had just been created. This is the precedent scientific advisers at the Biden White House have invoked as they propose a new Bill of Rights that aims to protect citizens in the face of the transformative technology of artificial intelligence. It is an admirable initiative, but one that should extend globally, not just to Americans.

If the notion of a new Bill of Rights seems grandiose, consider the context. International and national protections of fundamental rights and against abuses and discrimination by governments and companies have made great strides since the second world war. But these are aimed at human actors.

For the first time, decisions crucial to humans' wellbeing are being made in part or even wholly by machines — on everything from job applications to creditworthiness, to medical procedures or prison sentencing. And decision-making by algorithm turns out to be surprisingly prone to error or bias. Facial recognition technology can struggle with darker skin tones. What machines learn is influenced by the prejudices of those who program them, and the partial data sets they are given.

When things go awry, finding humans to take responsibility can be difficult. In the UK this month, a black former Uber driver whose account was deactivated after automated facial scanning software repeatedly failed to recognise him launched a claim at an employment tribunal.

The first task of an AI Bill of Rights is to strengthen existing protections for an AI world. It should apply to algorithmic decision-making in legal or life-changing areas. And it should extend to data and privacy, enshrining individuals' rights to know what information is held on them, how it is being used, and to transfer it between providers.

AI decisions should not emerge from an unfathomable black box, but be "explainable". A bill ought to guarantee an individual's right to know when an algorithm is taking decisions about them, how it works, and what data are being used. The right to challenge decisions and obtain remedies should be guaranteed. Some human or corporate responsibility needs to be maintained, with managers accountable for errors or flawed decisions by systems they oversee, as for those by human staff.

But AI gives unscrupulous governments new capabilities to snoop on, control and potentially coerce their citizens. A bill should set out what technologies are permissible or not, and ground rules for their use.

America's Bill of Rights initiative lags behind what Europe is doing. The EU General Data Protection Regulation already contains a right for citizens not to be subject without consent to decisions "based solely on automated processing", though this is not being widely enforced. A proposed AI Act outlines a hierarchy of risks for technologies subject to varying safeguards. Some, such as "social scoring" — nodding to China's social credit system that aims to assess behaviour and trustworthiness — would be banned.

The Biden administration should take up the EU's invitation to work together on AI issues. But just as the UN's 1948 Universal Declaration of Human Rights set out fundamental human rights to be universally protected, so a global AI charter is merited. Some countries would choose to go further; others, like China, might decline to sign up. But as in the cold war, superior protection for human rights, now against intrusive AI, could become a point of moral differentiation, and leverage, for democracies.

America must get its ambassadors in place

Bitter partisanship at home is holding back US diplomacy

The idea that, in America, "politics stops at the water's edge" belongs to a lost era of bipartisanship. It is a noble ideal that Democrats and Republicans should unite to defend a common idea of the US national interest. But the reality is that, in recent years, foreign affairs have regularly been instrumentalised for domestic political purposes.

Issue after issue — sanctions on Iran; the attack on the US consulate in Benghazi in 2012; Russian interference in the 2016 presidential election — have become subjects of partisan rancour.

There are few sorrier examples of the clash between domestic politics and American national interest than the impasse over the appointment of US ambassadors and senior diplomats. After nine months of the Biden administration, just one ambassadorial appointment has been approved by the Senate. Perhaps not coincidentally Ken Salazar, the ambassador to Mexico, is a former US senator.

At a time when President Biden is striving to rebuild alliances and to demonstrate that "America is back", key posts lie empty all over the world — in Beijing, at Nato, in Moscow.

A small part of the blame lies with the Biden administration, which has moved too slowly to nominate its top diplomats. The drive to balance appointments by race, gender and political orientation is important but it slowed the process to a trickle.

The real blame lies with the Senate — and with two obstructionist Republican senators, in particular: Ted Cruz and Josh Hawley. Cruz says that he will block all appointments until the Biden administration reimposes US sanctions on the company that built the Nordstream-2 pipeline that will carry gas from Russia to Germany while bypassing Ukraine. Hawley is angered by the withdrawal from Afghanistan. He is demanding that Biden's defence secretary, secretary of state and national-security adviser all resign.

The unrealistic nature of Hawley's demands, in particular, is a giveaway. There are legitimate objections to be made to the Biden administration's policy on both Nordstream-2 and Afghanistan. But the Cruz-Hawley tactics do not look like a considered political effort to force a change in policy. Instead, this is political grandstanding — part of a campaign to frustrate the White House at every turn and on every subject. The goal seems to be to cripple the Biden administration, preparing the way for a Republican resurgence in the next midterm elections.

While this kind of obstructionism may please Republican activists, it will harm America's national interests — as well as the interests of foreign countries that need a reliable channel to Washington. Unless Cruz and Hawley soften their stances, the only way to break this impasse would be to devote days of scarce Senate time to each nominee. With Congress already overloaded, this seems a remote prospect.

By tradition, many of America's top ambassadorial posts are filled by political appointees, rather than professional diplomats. Some may feel that the current logjam in the Senate could have the perverse benefit of leaving the conduct of American foreign policy in the hands of career foreign-service officers — rather than political donors.

It is true that some recent ambassadors have been markedly undiplomatic. Ric Grenell, Donald Trump's ambassador to Germany, seemed to go out of his way to offend his hosts. But even Grenell had the virtue of accurately reflecting the views of his president. The best political appointees have connections in Washington that give them authority and an effectiveness that career diplomats cannot always replicate.

Letters

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Vaccinating transport workers would ease supply bottlenecks

Eighteen months ago, your paper carried a warning from the shipping industry about a potential "trade logjam" unless governments prioritised the wellbeing of transport workers. These were not idle words ("Dealing with Christmas supply chain indigestion", FT View, October 16).

Today, governments around the world are scrambling to fix a problem which they have ignored for too long: the ill-treatment of the seafarers, pilots and drivers who keep global trade moving. In medical terms they are treating a patient who has already arrived in A&E, when preventive health measures could have been taken a long time ago. During Covid, governments have been slow in declaring transport workers as key workers and to prioritise them for vaccines. Some have yet to do so.

This has meant that the crucial links in the global supply chain — human beings — were trapped on board ships, forced to sleep in their vehicles for weeks on end, or made to fly from quarantine to quarantine with no break. Despite repeated warnings from industry that supply chains could not weather this, and warning signs such as major port shutdowns in China and the US, global leaders were unwilling, or unable, to do what was needed.

They are now reaping the consequences. Christmas may not be cancelled, as many worry, but the post-Covid economic recovery for many countries has been pushed back significantly. Workforce numbers will struggle to recover.

The Biden administration's public efforts to address bottlenecks at the ports of Los Angeles and Long Beach are welcome, but address symptom rather than cause.

Governments must implement an easing of travel restrictions for transport workers, allow them to be prioritised for vaccinations and agree common vaccination requirements to ensure supply chains can continue to meet the needs of the world.

Guy Platten
Secretary-General, International Chamber of Shipping, London EC3, UK

Stop penalising those with natural Covid immunity

There are two ways to acquire immunity against Covid-19. One is with vaccines, the other, by catching the virus ("Winter blues: UK trails European peers in Covid battle", Report, October 16).

After an initial period of uncertainty, medical studies have now clearly concluded that the immunity acquired "naturally" by getting infected is at least as good, and probably more robust than the immunity provided by vaccines.

In the EU, however, Covid passes are still valid for only six months after recovering from Covid-19, whereas they are valid "forever" for vaccinated people. This severely discriminates in favour of one group of immunised people and against the other, and is contrary to medical evidence.

European governments should urgently equate the validity of recovery certificates to that of vaccination certificates. This would put an end to unfair discrimination and facilitate cross-border travel in the upcoming holiday season. In addition, it would also reduce internal opposition to Covid passes in France, Italy and elsewhere.

Luis A Robles Macía
Uccle, Belgium

"I KEEP THINKING I CAN HEAR A HYPERSONIC MISSILE"

Alitalia's demise leaves sector in holding pattern

Alitalia's effective makeover says a lot about the nature of the airline industry ("Maiden flight by ITA brings down curtain on Alitalia era", Report, October 16). Carriers, including so-called low-cost ones, all operate the same types of aircraft with the same seats, share the same passenger systems, fly out of the same airports, utilise the same airspace and air traffic control, go generally to the same destinations and pull up to the same terminals.

Their inventory is open and visible, and is booked on common search engines. They are overseen by the same regulatory authorities, and comply with the same rules. They buy their fuel from the same vendors, and share the same parts suppliers and conduct maintenance often at shared outsource providers. This describes a commodity.

So what then makes an airline an airline? Beyond paint schemes and branding, the only differentiating factors are cost, contracts and management. These three factors, often temporary, control the carrier's economic performance, but they don't necessarily have much positive impact on what the final product looks and feels like to a passenger, when you ultimately step on board and take your seat. It is still often disappointing, as the carriers are stripped down to the most basic of amenities, in order to "compete", and the seats are still not ones that generally conform to the shape of a human body.

It is a shame that Alitalia failed. The nature of its problems, which even low-cost carriers eventually must face, were not complicated, and in a more smartly regulated system, could have been overcome.

Matt Andersson
President, Indigo Aerospace
Chicago, IL, US

A school pupil questions the case for nuclear power

In "Nuclear power can help fill the energy gap" (Opinion, October 8) Gillian Tett states that the climate problem cannot be solved by what we are doing right now, so she suggests the use of nuclear power to solve the problem. I beg to differ.

I believe that nuclear energy would be a catastrophic option. First, nuclear energy produces radioactive waste which is hard to handle, and leakage of which would contaminate everything.

Second, the operation of nuclear plants has a significant impact on the environment. The mining of uranium, the fuel for nuclear energy plants, is not environmentally friendly, leaving behind radioactive particles and causing soil erosion, as well as polluting nearby water resources.

Lastly, terrorists might target power plants with the intention of creating disasters, in which the uranium for power generation may be turned into nuclear weapons.

Gordon Ng
Year 10 student, King George V School
Hong Kong

China's Taiwan incursions could be an intel windfall

Your editorial ("The acute dangers of conflict over Taiwan", FT View, October 13) wisely urges caution in the current tensions between the US and China over Taiwan.

You highlight repeated incursions by Chinese warplanes to put pressure on Taiwan and against naval forces from the US, UK, Canada, Japan, the Netherlands and New Zealand. Paradoxically these aerial shows of strength suggest the Chinese may not be serious adversaries.

Unless it is flown with extreme professionalism and stealth, a warplane generates electronic signals of use to an enemy. Repeated flights of up to 50 aircraft would generate a startling cornucopia of signals intelligence for any observer. Pressure on Taiwan has the unintended effect of briefing any would-be enemy and their allies with extensive knowledge of the Chinese air force and all its modus operandi.

Surely, it would be of more concern if the Chinese did not show their hand in such a comprehensive and revealing way and remained completely passive.

Jonathan Aylen
Salford, UK

Lincoln fought a war to preserve US union

Further to Robert Shrimsley's column on Scottish independence "Democracy must prevail in Scotland" (Opinion, October 14), I would remind your readers that the US fought a war between the states to determine if a state that voluntarily entered the union can as easily withdraw.

Although the US constitution did not specifically address this concept, it did state in the 10th amendment that all powers not specifically given to the federal government reside in the states.

For example, states cannot make treaties with sovereign states (ie Native American nations, for purposes of taking their land) because the constitution specifically reserves that power to the federal government.

Some believed individual states could choose to leave the federal union. President Abraham Lincoln disagreed and called out state and federal troops to oppose this activity. The union was ultimately victorious over the seceding states and hence settled the matter for good (I hope).

Democracy as a concept is not predicated on a voluntary union of states, peoples or cultures. It is nice, however, if it occasionally falls out like that.

Ted Gaffney
Waterford, CT, US

Crypto tax treatment is a concern for all investors

You report (October 16) that the US Internal Revenue Service, HM Revenue & Customs in the UK and the US Securities and Exchange Commission have intensified scrutiny of individual cryptocurrency holdings. But individual investors are only part of the picture — institutional investors and corporations also have significant crypto exposure now.

Tax and regulatory authorities are holding them to an even higher standard. Hedge funds, family offices, company treasuries and businesses have embraced crypto and now face sophisticated accounting, audit and compliance challenges.

They need clarity on the tax treatment of crypto assets, especially crypto-native concepts and activities that don't have parallels in the traditional finance world such as airdrops, mining and staking.

But it's not just the regulatory authorities that need to level up. Accountants, auditors and fund administrators need to educate themselves on crypto taxation and improve their technical infrastructure.

If they want to service this rapidly growing market, they'll need to embrace technology that bridges the accounting chasm between the blockchain and their current systems.

Hemant Pandit
Head of Marketing, Cryptio
London WC2, UK

Businesses want to know government is not a risk

Chris Giles is quite right when he says "treat them mean, keep them keen" is bad advice for both relationships and economic policy (Opinion, October 15). I am not sure how many marriages would last very long with either, or both partners taking such an approach. It is definitely not the way smart businesses treat their customers, suppliers or employees.

Sir Bill English, then finance minister of New Zealand, best explained the proper role of government in 2014: "Governments need to create an environment of stability and good incentives for [businesses] to grow the economy. Businesses need confidence the rules will not shift and the government is not one of the risks they have to manage."

Instead of "treat them mean, keep them keen", good policy is a matter of providing proper incentives and setting rules that can be relied on. Because government should not be "a risk" that business, or anybody "has to manage".

Patrick J Allen
River Forest, IL, US

Amess's killing will change how Britain does politics

Notebook

by Sebastian Payne

An American visitor to the UK's Conservative party conference this month gawped and pointed. "There's the prime minister, taking selfies," he cried. "He's just . . . walking around. Anyone can go up to him!" As Boris Johnson did the "grip and grin" circuit with his fans, surrounded by a small gaggle of guards, the man wistfully said, "there's no way this could happen in America."

The scene captured the understated nature of British politicians compared with the security-heavy walkabouts of their US counterparts. Until recent decades, MPs did not have dedicated staff or an office of their own. They still roam the streets of Westminster and their constituencies scarcely noticed. Only a handful of the most senior of ministers are given full police protection.

All MPs, whether prime minister or new backbencher, hold constituency surgeries. Roughly once a week, every member of the House of Commons returns to meet their voters in church halls, small village libraries, cafés and community centres. As the social-care function of MPs has grown so, too, has the importance of these meetings.

The first brutal challenge to this system in decades came on June 16 2016. Labour MP Jo Cox was leaving her surgery in Yorkshire when she was murdered by a far-right terrorist. Last Friday, when Sir David Amess was stabbed to death while sitting in an Essex church, was a potentially lethal assault on the innocence of how Britain does politics.

The tragic deaths of Cox and Amess — with a handful of other attacks in surgeries — in these very ordinary constituency settings highlights what British politics risks losing. Both MPs were devoted local champions, in love with the towns that elected them and readily available to their voters. Their politics have may been far apart, but the pair represented the best of parliamentary democracy.

After the two killings, however, change is inevitable. Priti Patel, the UK home secretary, is mulling plans to tighten security, including police protection at surgeries, pre-booked appointments and airport-style checks. The former Tory leader Iain Duncan Smith, who was assaulted during the Tory party conference, agrees police protection is needed but insists access to MPs must be preserved. "Whilst I am sure it is possible to get better security, particularly at our surgeries, nothing should come between us and our constituents", he wrote at the weekend.

Another option is to hold surgeries in MPs' offices, where vetting is tighter. This is easy in geographically small urban seats, but tricky in large rural constituencies. Some, like the Tories' Tobias Ellwood, think all surgeries should go virtual, as they did during the pandemic.

There is no single reason for the attacks, but there will be questions for the British state, given that the 25-year-old arrested over Amess's killing had reportedly been referred to the Prevent anti-radicalisation programme (it's unknown whether he engaged with it). Lone-wolf attacks are the most difficult for the security services to thwart. MPs are already lining up to ask whether Prevent, run by cash-strapped local councils, should be re-examined.

The UK's political discourse is also coarsening. The temperature of debate has risen dramatically over the past six years, through the Brexit referendum and its messy fall out, and two general elections. MPs of all stripes say their inboxes and social media streams have become cesspits of bile. One senior Labour MP says, "reading everything that comes my way, it barely makes you feel human".

Social media platforms have much to answer for in allowing anonymous trolls to use toxic, often violent language against politicians. Amess, a rightwing pro-Brexit Tory, was widely respected by his opponents as a kind, humorous man — just the sort of person who should be in parliament. Such people must not be turned off politics in the future.

But the solution should not rest upon curtailing MPs' interactions with their voters. Those who criticise politicians for being out of touch miss the point that their regular surgeries make them more in touch than most realise. Change is needed to save the system but the constituency link is the most precious jewel in Britain's democracy. It must be preserved.

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Opinion

Vets feel the strain from pets boom and labour shortages

EMPLOYMENT
Sarah O'Connor

In the eyes of investors, the vet business is booming. Shares in CVS Group and Pets at Home, companies which supply vet services, are up about 115 and 70 per cent, respectively, since the start of last year, thanks in part to a rise in pet ownership during the pandemic. An investment this year in IVC Evidensia valued the private equity-owned vet company at €12.3bn, four times higher than two years earlier, and more than 32 times IVC's earnings in the year to March. A data provider described the valuation as "stratospheric".

But the boom has a dark side. Veterinary associations from the US to Australia are warning that burned out vets and nurses are leaving the profession. In the UK, the number of contacts received by Vetlife, a helpline for vets needing emotional, financial or mental health support, reached almost 4,000 in 2020, up tenfold since 2014. The Royal College of Veterinary Surgeons has called a summit on workforce shortages next month, while the British Veterinary Association has pleaded with people to "think long and hard" before getting a pet.

"I'm tired of going home in tears," wrote one member of Veterinary Voices UK, a popular private Facegroup group, this past weekend. "I'm tired of worrying what the next day will bring. I'm tired of being tired. How did we get here?"

There is a similarity between burned out vets and the other staff who are in short supply this year, such as HGV drivers, meat factory workers and hospitality staff. Every labour shortage of 2021 has its roots in deeper problems which have gone unresolved for years.

The proximate cause of the vet shortage is the pandemic, which boosted the number of pets while disrupting services and causing staff absences. In the UK, Brexit has exacerbated the problem. In recent years, more than half the number of vets registering in the UK came from other EU countries, according to the RCVS.

But the warning lights were flashing for years before. In 2019, only 48 per cent of vets and 51 per cent of veterinary nurses told RCVS surveys they would choose the profession if they could start their career again. A third of recently qualified vets felt not at all or inadequately supported. A quarter of nurses said they planned to leave in the next five years, up from 15 per cent in 2014. Both groups scored lower on a measure of mental wellbeing than in 2014, with particularly low scores for the statements "I've had energy to spare" and "I've been feeling relaxed." Studies have shown that suicide rates are higher among vets than the general population in the US, Norway, Australia and the UK.

> Lower pay is one price of doing what you love, but not when you're too tired to love it any more

Vets say long and antisocial hours are one problem. As with HGV drivers, overnight and weekend shifts strain family life. "The fact that everyone's too exhausted to go for a run after work or visit friends at the weekend, you can end up in a lifestyle that's quite unhealthy for your mental health," Danny Chambers, a vet, told me. There is also an emotional toll from dealing with grieving pet owners, or angry ones who accuse vets of profiteering. "Some people will scream at you about how you're a money-grabbing bleep to your face," says Karmen Webbe, another vet.

In fact, vets aren't paid a huge amount given the length of their degrees (typically five years in the UK). The median salary for a vet was £45,150 in 2020, according to the Society of Practising Veterinary Surgeons. Median pay for veterinary nurses is between £23,000 and £28,300 depending on the region, and many are expected to work unpaid during their training placements. For many vets, the job is a vocation they have dreamed of since childhood. Lower pay than other professions is one price of doing what you love, but it can quickly become a sore point when you're too tired to love it any more.

Then there is the trend of large vet companies buying up independent practices. The RCVS survey found plenty of disquiet from vets who were uncomfortable with the sharper focus on profits and targets. On the other hand, some vets say the corporates have more modern HR practices, such as giving time in lieu for weekend shifts, and offer more structured graduate programmes. Overnight work is also being outsourced more often to dedicated out-of-hours service providers, which should mean fewer on-call shifts.

Company managers would be smart to make bigger moves to improve pay, conditions and retention in the veterinary profession, especially for nurses. Investor bullishness is all very well, but the shortages of 2021 offer a simple lesson: if an industry doesn't work for the people who work in it, one day it might not work at all.

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Biden's two-front war for democracy

GLOBAL AFFAIRS
Gideon Rachman

"Are We Rome?" Cullen Murphy's book with that title was published in the US in 2007, capturing the concern that America was an empire in decline. Today, the fashionable question in Washington is "Are we Weimar?" Is America, like Germany in the 1920s, a democracy in terminal decline?

These twin fears — Rome and Weimar — are linked. Internal and external weaknesses feed off each other. Conventional accounts of the fall of Rome, stress both the barbarians on the frontiers of the empire and the rot at its centre.

Joe Biden certainly believes he is fighting a two-front war for democracy. At home, the US president faces the threat of a Republican party that is still in thrall to Donald Trump — the first president in US history to refuse to accept defeat in an election. Overseas, he faces the challenge of a rising China — which Biden has framed as part of a larger struggle between democracy and autocracy that will define the 21st century.

In theory, these two battles are complementary. A stable and confident America is better placed to "make the world safe for democracy", as Woodrow Wilson said. By contrast, a world in which authoritarianism is on the rise can poison the domestic political atmosphere in the US — witness the American right's current fascination with Viktor Orban's Hungary.

In practice, however, the two battles for democracy create contradictory pressures. Biden's domestic situation means he is fighting the global battle for democracy with one hand tied behind his back. The Biden team know that there is no point winning the fight in Taipei or Kabul if you lose it in Washington. So the fight for democracy at home must come first.

Biden has promised a "foreign policy for the middle class" — which means every decision he makes, foreign or domestic, will be focused on voters in Middle America. This goes well beyond the normal urge of a political party to hold on to power. The Democrats fear a second Trump presidency would be openly authoritarian and that even a close election would give the Republicans an opportunity to try to overturn the result. That, in turn, could split the country into warring "red" and "blue" enclaves.

The urgency of the battle for democracy at home means that the Biden administration is prevented from making what would otherwise be obvious moves in the battle for democracy overseas.

The most obvious example of this constraint is the White House's reluctance to make any new foreign trade deals — in deference to the protectionist mood that Trump whipped up. America's paralysis on trade hands a big advantage to China. Biden's foreign-policy people know that Chinese influence cannot be checked with aircraft carriers alone. They fear that, without an Asian economic strategy, the US will ultimately lose its battle with China.

The obvious US strategy would be to negotiate a new trade deal with Asian allies. The Obama administration concluded just such a deal, the Trans-Pacific Partnership, only for Trump to withdraw from it. But the protectionist mood in the US was already so strong — on the left, as well as the right — that Hillary Clinton had also repudiated the TPP while on the presidential campaign trail.

A smaller trade pact was kept alive by Japan and others and revived as the CPTPP. In an ideal world, the Biden foreign-policy team would love to join it. In practice, that would be too great a political risk. Instead, ironically, China has now applied to join the CPTPP. Washington policymakers think America's Asian allies will only be able to block Chinese membership for a few years. Eventually, China will get its wish. A trade alliance originally intended to be a bulwark against Beijing will instead become its battering ram.

> The urgency of the battle at home is preventing otherwise obvious moves in the battle overseas

The US is now casting around for other economic instruments to boost its influence in Asia. A pact on technology standards looks potentially interesting. So do efforts to provide infrastructure funding, as an alternative to Beijing's Belt and Road Initiative. But these are, in truth, second-best solutions.

Biden's decision to end the war in Afghanistan was also driven, in large part, by his determination to put the sentiments of Middle America above the instincts of the Washington foreign-policy "blob". There was also a geopolitical case made for withdrawal; that quitting Afghanistan would free up US resources to concentrate on China and Russia. Both of these arguments have some force. But the triumph of the Taliban can hardly be chalked up as a win for democracy. Two weeks of televised chaos from Afghanistan were also a big blow to Biden's reputation for competence at home.

The idea that Biden is a floundering incompetent is now being hammered home by the Republicans, who also point to the failure to control migration on America's southern border — and to the administration's struggle to get its spending package through Congress. One recent opinion poll saw Biden's approval rating dipping to 38 per cent; others put him in the low 40s.

The White House is trying to project an image overseas of a resurgent America that is neither Rome nor Weimar. But in Biden's Washington the fear that the president may fail — and the dread of what that might mean for America — now hovers in the background of every conversation.

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We need a global climate prosperity plan, not empty pledges

Sheikh Hasina

The inconvenient truth of our times is that while action on climate change has never been more urgent and achievable, governments are not cutting emissions fast enough to keep nations such as mine safe.

In the north of Bangladesh, millions of people depend on fresh water stored every year in the Himalayan ice fields, which warming air is now destabilising. In the south, sea level rise is exacerbating the threat from coastal flooding. Falling crop yields are another destructive change we can anticipate.

Only a tiny fraction of global warming can be attributed to Bangladesh's carbon emissions. Even so, we are committed to leading the path to a solution. This is not only because we wish to avert the worst of climate change; it also makes economic sense. Investing in zero-carbon growth is the best way to create jobs across the economy and ensure that our nation becomes more prosperous.

Earlier this year my government cancelled plans for 10 coal-fired power plants. But that was a relatively small step. With COP26 in view, we developed the world's first national "climate prosperity plan" — a vision under which we will enhance resilience, grow our economy, create jobs and expand opportunities for our citizens, using action on climate change as the catalyst.

Under the plan, we will obtain 30 per cent of our energy from renewables by 2030. We believe that developing wind farms along the coast will revitalise the mangrove forests that help stabilise our shifting shores, protecting against storms and flooding. We will empower banks to offer favourable terms to fossil fuel-free infrastructure projects, and pursue co-operation with developed nations in areas such as green hydrogen.

By investing in resilience and zero-carbon development we will create about 4.1m more jobs this decade than under business-as-usual. The plan will simultaneously prevent up to 6.8 per cent of the economic damage that would otherwise come not only from climate change but also increasingly uneconomic fossil fuel infrastructure. We calculate the benefit to our GDP at over \$850bn. I believe more developing nations will adopt such plans in the coming months and years, led by members of the Climate Vulnerable Forum.

> Bangladesh can implement reforms alone, but international finance would speed things along

Bangladesh can implement this plan independent of other countries, although international climate finance would speed things along. But what the world needs if we are to meet the Paris agreement goal to keep warming to less than 1.5C above pre-industrial levels, is a global version of our climate prosperity plan. This year's COP26 summit in Glasgow is the best opportunity we will ever have to make one.

But as things stand, failure is a distinct possibility. Having pledged three decades ago at the Rio Earth Summit to lead the world out of the climate and nature crises, developed nations have cut their combined greenhouse gas emissions by less than one-seventh. That is not leadership.

Nor is their repeated refusal to take seriously the needs of those nations most immediately affected. Agreement to support the poorest in dealing with the losses and damages caused by climate change is far removed from implementation. Although recent net zero pledges from the EU, US and others are welcome, they are largely not accompanied by policies that give confidence that they will be delivered. The \$100bn per year finance pledge made 12 years ago remains unfulfilled.

This \$100bn is tiny compared with what developing nations will need in order to build a zero-carbon future. Both governments and private institutions want to invest but we face the stark burden of a high cost of capital, exacerbated now by Covid-related debt.

If developed nations wish to help they must address this. Cutting the cost of capital will substantially accelerate decarbonisation across the global south, yielding worldwide benefits. If western leaders cannot see the logic of this, perhaps recent events in their own backyards will help — for what were the extreme forest fires seen in North America and Australia or Germany's recent lethal floods, if not alarm bells clanging in regions of the world most responsible for climate change?

Bangladesh was born 50 years ago this year, a birth shrouded in blood and pain. My father, Bangabandhu Sheikh Mujibur Rahman, inspired and led our independence struggle. It is in his memory that we have named our climate prosperity plan the Mujib Plan. Climate change is a very different foe from those he faced, but dealing with it requires a great deal of fortitude, imagination, hope and leadership. If western leaders listen, engage and act decisively on what science demands of them, there is still time to make COP26 the success it desperately needs to be.

The writer is prime minister of Bangladesh

A hacker warns: give up trying to keep me out — focus on data

Charles Henderson

For more than 20 years, businesses around the world have been hiring hackers. They want us to find exploitable loopholes in their "armour" and break in as far as we can before they're able to figure out we're there. "Are we impenetrable?" is the universal question. You may well be asking the same about your organisation. And I can answer with confidence that you most certainly are not. There is always a way in. Always.

The best security advice for government and business leaders is to simply "give up" on trying to keep me out. Assume I'm already in, finding my way to your most prized possessions. What you actually need to trouble yourself with is, what can you do to stop me?

The Biden administration's recent cyber security executive order provides guidance to federal agencies, namely to establish a "zero trust" relationship with their supply chains to protect data. Zero trust is not just a buzz phrase, single action or tool the industry is marketing. It is a set of principles upon which to build a security strategy, and it's largely founded on the assumption of compromise. Last year, the US was the number one target of cyber attacks while Europe also experienced an onslaught of ransomware attacks. We need a radical new defence.

There is a misconceived notion that the security arena is a battlefield. It is not. It is a chess board and requires foresight and calculated pawn placement to protect the king — your data. If your main focus lies on keeping me out of your environment, then it's already check mate. Your mission should be to buy time, slow me down and ultimately contain my attack.

> Your mission should be to buy time, slow me down and ultimately contain my attack

Businesses must therefore make it as hard as possible for adversaries to exploit the relationships that allow them to move laterally through the corporate network. They can do this by distrusting anyone within their data's environment and repeatedly corroborating that all users are who they say they are, and that they act like it too — because while identities are easy to compromise and imitate, behaviours are not.

The real red light is the unchecked privileged access that governments and companies grant their supply-chain partners via passwords. Think of this as an identity badge that lets third parties enter a company's building, except the building is the corporate system. In the past year, in nearly 99 per cent of the cloud networks that my team were hired to hack, password attacks got us initial access.

Why not double down on hardening these systems and better detection strategies? Because relying on stronger authentication and better prevention tools is what got us to the current state. Adversaries have found their ammunition in the complexity maze that businesses have built around them. This is how Russian threat actors were able to remain undetected on government networks for nearly nine months during the 2020 SolarWinds breach.

The mindset that I'm advocating is strategic, not defeatist. Business must realise there is no constant state of security, but they can be prepared. This will look different for each organisation, but it starts with knowing precisely what your most critical data is and where it lies. Who has access to it, who could get access to it and who really needs access to it. It's about cutting off pathways that an adversary could exploit.

Government agencies such as the National Security Agency and Department of Homeland Security in the US or the National Cyber Security Centre in the UK already realise that the game has changed. Leaders across industry and government who commit to a culture shift in which trust becomes just as much of a currency as data will gain a strategic advantage — limiting the moves an adversary can make, forcing them to make more noise and ultimately leaving them less room to execute their attack.

The writer is a hacker and head of IBM X-Force

Lex.

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Digital assets: bitcoin's bear test

Bitcoin has received no validation stronger for diehard fans than Jamie Dimon calling it "worthless". JPMorgan, which he runs, is exactly the kind of dominant, regulated institution that cryptocurrencies are meant to disrupt.

"He keeps commenting on cryptos", says Oleg Giberstein, a London crypto entrepreneur, "but the market is proving him wrong". Bitcoin jumped to about $60,000 last week, near historic highs, anticipating long-awaited exchange-traded fund launches.

The combined value of cryptos monitored by the CoinGecko website rose to $2.5tn, about five times the market worth of JPMorgan.

Lex will examine digital assets daily this week because they are edging into the mainstream. Giberstein's comment is only half-right. Crypto's popularity is nudging some regulated institutions into providing dealing services. But a real market test will come only with a prolonged stock market downturn.

This column's position on bitcoin is that its utility is limited to secrecy (some of it illegal), dissent (some of it justified) and speculation (it is always with us). In the latter guise, bitcoin is a good barometer of exuberance precisely because it is a clumsy transactional medium.

The price of this supposedly uncorrelated asset roughly halved last year when the S&P 500 fell by a third. It bounced back swiftly when bailouts and vaccines flowed. It is polluting and fabulously unstable: about five times more volatile than the S&P 500 by one measure. Our hunch is that bitcoin would stay glued to the linoleum through a prolonged bear market. An equities retreat is possible if governments and central banks bungle the switch from free-handed stimulus to rate rises and tax hikes.

It is moot how well bitcoin, a legacy asset lacking an intrinsic yield, would recover from this. But even if it becomes a historic footnote, this flagship crypto would have shown that such assets can be widely held. Central banks, rallying in defence of fiat money, are therefore experimenting with electronic versions using the same blockchain technology.

Ultimately, monetary authorities are likely to impose regulated digital assets on Dimon and his successors. This would reduce transaction costs and the margins they yield to banks. That would be far from the disruption bitcoin evangelists envisage. Its effects would be far-reaching nevertheless.

Mini-tenders/AZ: seller beware

Tender offers often bestow a hefty premium. But not always. AstraZeneca urged holders of its American Depository shares yesterday to reject a below-market-price approach. The offer was an example of a mini-tender.

These are bids for less than 5 per cent of a company — the threshold at which most protections kick in. US regulators say they are increasingly being used to catch investors off guard. No shareholder paying attention would seriously entertain the offer.

There was no need for AZ to repeat the spiel about it undervaluing the attractive prospects rolled out to counter Pfizer's 2014 bid. It values AZ shares at 4.5 per cent below their price the previous day. Nor was there any attempt to present the offer as a serious stakebuilding attempt. At most, it would amount to 0.06 per cent of shares. TRC Capital Investment Corporation of Toronto made the approach. Lorne Albaum, a securities lawyer, founded TRC. But there is a paucity of other information, since normal disclosure rules do not apply.

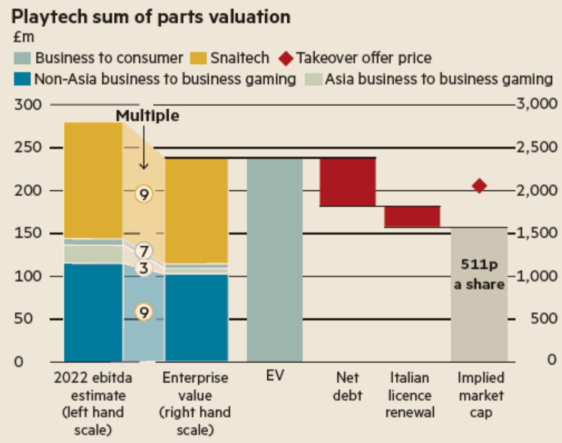
TRC is not the only source of lowball offers, but it is active. Targets include GE, Colgate-Palmolive, Gilead Sciences and GSK. Clearly, enough shareholders accept mini-tenders to make the effort worthwhile. In 2014 Albaum said a "majority" of his offers resulted in investors tendering shares. But he would not disclose actual results.

Most of those taking up such offers are likely to be small investors. One exception was the Ontario Teachers' Pension Plan Board, which sued Arizona-based IG Holdings over a 1999 mini-tender offer. It was unsuccessful, though the SEC, through enforcement action, has forced bidders to disclose more, including the fact that their offer might not reflect the market price.

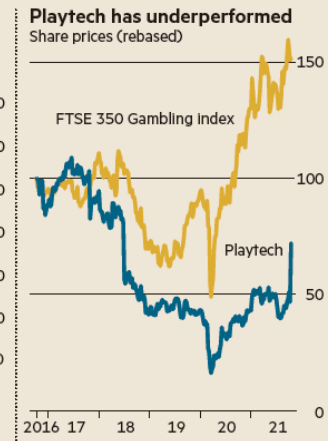
Sellers cannot say they were not warned. But despite periodic complaints, there is a sense that regulators have more serious problems to deal with. Mini-tenders will continue to be a nuisance to companies and a risk to uninformed investors.

Playtech/Aristocrat: full house

The London-listed gambling group has traded at a persistent discount since hitting regulatory trouble in 2018. Lower-rated earnings from unregulated gambling markets and opaque disclosures have kept the valuation below its full potential.



FT graphic Sources: Numis; FT Research



Source: Refinitiv

Knowing when to hold 'em and when to fold 'em separates the winners and losers in cards. Those who still hold some of Playtech yesterday got their lucky break. An offer from Australia's Aristocrat Leisure valuing the London-listed group at £2.7bn was recommended by Playtech's board.

Stock market investors like to bet on simple propositions. Playtech's collection of gambling operations is anything but that. It was deemed too complicated for Aristocrat, which demanded the sale of financial-trading unit Finalto to close the deal. It is too bad that the rejig has arrived only as the result of a takeover. But the sizeable premium on offer still makes the deal a winner.

The all-cash bid is a 66 per cent premium to Playtech's three-month undisturbed share price. That is the highest the shares have been since mid-2018, when a Europe-wide overhaul of spread betting rules sent them tumbling. Concerns over the extent of revenues from unregulated markets then weighed on the shares, which never fully recovered.

Even after a boost to online gambling in lockdowns, Playtech shares have trailed peers by one-third since the start of 2020. The market has given little credit for improvements. These include the declining importance of unregulated markets, which account for just one-sixth of earnings down from just over half in 2017.

Playtech is still innovator. Its games are used by most big gambling sites. It is now the second-largest provider of live casino games too, behind Sweden's highly rated Evolution.

The £30m of ebitda Playtech is expected to generate from these activities next year would be worth almost £900m if valued similarly. But they are lumped in with earnings from other services along with Italian and South American gambling operations. That eclectic mix holds the shares back.

Aristocrat's offer is equivalent to 10 times 2022 ebitda; that is a lower multiple than peers such as 888 Holdings trade at. But this reflects Playtech's past regulatory woes and continued complexity. It should not stop Playtech shareholders from throwing in their hand.

Hydrogen/steel mills: pushing water uphill

Jules Verne imagined a society powered by hydrogen back in the 19th century. The idea of the element as a clean fuel has won a harder-headed adherent in UK entrepreneur Jim Radcliffe. His group, Ineos, which produces chemicals and refines oil, has a €2bn plan to expand into hydrogen. Since Ineos owns six private jets Radcliffe may be seeking a distraction from his company's own carbon emissions.

Ineos's focus will be on "green" hydrogen, made by splitting the gas from oxygen in water using renewable energy. This has promise for decarbonising industry. It could not only supplant hydrocarbons as a portable and storable fuel, it could also be used for steelmaking.

Blast furnaces use coking coal to melt iron ore and remove oxygen. Hydrogen could do that. But you would need lots of it cheaply. This would require a huge expansion of electrolysis capacity. The UK produces 7m tonnes of steel annually. Powering that with hydrogen would require 7 gigawatts of electrolysis plants, thinks UK-listed ITM Power, which makes them.

That is seven times its own current capacity. Even if overheads were falling, new sites would still cost more than £3.5bn. Hydrogen's price would figure. At today's price of $5-$7 per kilogramme, the green version is triple what steelmakers are willing to pay.

ArcelorMittal, Voestalpine and SSAB have announced early steps towards adopting hydrogen. They will hope to socialise any transition costs, including writedowns for existing mills, via government financial support.

Even starting from scratch to build a green steel plant would cost more than €500 per tonne, says Jefferies. The EU produced 159m tonnes of steel in 2019. Rough calculations suggest that European steel would need more than €50bn of investment to switch.

Such sums make carbon transition look daunting. But equivalent sums of sunk investment spawned modern industry, the factual counterpoint to Verne's imaginings.

State Street: no urge to merge

State Street's $3.9tn asset management arm is repeatedly touted as a target for a major deal. The business, State Street Global Advisors, reportedly weighed up takeover talks with UBS. More recently it has been linked to rival exchange traded funds issuer Invesco.

But State Street prefers to go more slowly. Yesterday, the Boston-based financial services giant dismissed reports of a deal with its competitor as "speculation". Stronger than expected third-quarter results mean it can afford to take its time. Revenues rose 7 per cent year on year to nearly $3bn, while net income jumped by 29 per cent to $714m thanks to stronger fee growth and demand for its ETFs.

M&A have swept the $100tn global investment sector in recent years amid downward pressure on fees. Last year Morgan Stanley bought Eaton Vance for about $7bn. Franklin Templeton acquired Legg Mason for $4.5bn.

For State Street there could be some merit in finding a partner. Although it was a pioneer in low-cost index investing, BlackRock and Vanguard have since overtaken it. A tie-up with Invesco, the fourth-largest ETF issuer in the US, would provide the scale needed to better compete against the market leaders and help close the valuation gap with BlackRock.

A potential deal with Invesco would be huge, but it would also be messy. Ownership splits and valuation differences are all potential sticking points. The issue of overlapping legacy funds could also cause problems. When two asset managers merge, there is often overlap between their mutual funds. That can lead to client losses and large outflows. This happened when Invesco bought Oppenheimer.

State Street should continue to focus on what it has been doing: boosting fees and margins for its core custodian banking business and the asset management business.

A one-third rise in its shares this year, besting the broad market's 19 per cent gain, suggests that it has the confidence of investors to keep going.

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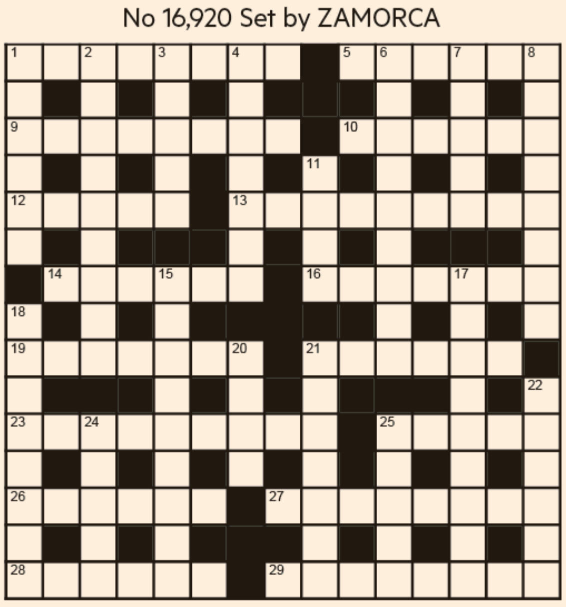

ACROSS
1 Spar has bread in front of till (5,3)
5 Still shortly intend to join police (6)
9 In gold, carats' value is precise (8)
10 Judge old man playing the fool (6)
12 Gets rid of letters penned by infamous Tsar (5)
13 Perhaps sister's wearing veil in order not to be seen (9)
14 Deer taken by lion's making a comeback challenge (6)
16 Wife takes right approach in quarrel (7)
19 May freak when imprisoned without charge (7)
21 Company has power for every PC (6)
23 Ducks fine in new enclosure, hope you don't mind (2,7)
25 Overt corruption in key part of democratic process (5)
26 Have a hunch some Latin tuition's required (6)
27 Futile pursuit of cup's plucky (4,4)
28 Row with young girl about stowing drug in boat (6)
29 Easiest solution's one to be adopted in my opinion (2,1,3,2)

DOWN
1 Cut each last weed in field (6)
2 Move scenery as required (9)
3 Always rejected Twitter's right wing points and threads (5)
4 Huge al fresco day out includes heading to zoo (7)
6 Seem keen to get a move on (4,5)
7 Rise of Conservative member (5)
8 Comic verse cruelly eviscerated Lloyd George (8)
11 State of West Virginia raised ordinary income (4)
15 Look up article supporting federal leader – it's hard to stay loyal (4,5)
17 Have lunch in garden relaxed with large dog (5,4)
18 Love writer's intellect and unprejudiced way of thinking (4,4)
20 In Marseilles you catch endless fish (4)
21 On telephone makes certain promises of money (7)
22 Father has bother with rain regularly coming in (6)
24 Generally get mushy when son leaves (5)
25 Praises avenue lined with elevated flower containers (5)

JOTTER PAD

Solution 16,919