FINANCIAL TIMES

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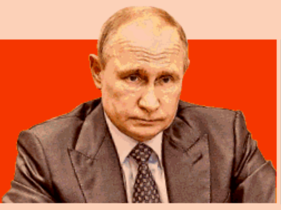
Brush with the law
Urgently needed haircut derailed by litigation risk — NOTEBOOK, PAGE 14

Russia's pandemic
Virus crisis blows hole in Putin's agenda — BIG READ, PAGE 13



End the blame game
Global inquiry could ease China-US mistrust — GIDEON RACHMAN, PAGE 15

Holding tight
Italian family together again

Melia Famoso, right, and her husband Giovanni embrace their grandchildren after almost two months' social distancing under Italian lockdown near Milan.

Italy entered the second phase of its coronavirus emergency yesterday by gradually relaxing strict measures that have been in force for 55 days. Some 4.4m returned to work, and cafés and bars reopened for takeaway service.

But as Italy started to reopen its economy, there were calls across France, Germany and Spain urging caution when easing lockdowns. Employers want to return to work but are concerned they will be liable for staff illnesses and deaths if social distancing is ineffective.

Europe's lockdowns page 3
Shine off Salvini page 4

Daniel Dal Zennaro/EPA

Aviation industry reels from new GE job cull and Buffett stock sale

● 10,000 more lay-offs ● Berkshire selling revelations hit shares ● Doubts on travel restart

ANDREW EDGECLIFFE-JOHNSON — NEW YORK
CLAIRE BUSHEY — CHICAGO
JAMES POLITI — WASHINGTON

The aviation industry took another hammering from the coronavirus crisis yesterday as GE cut 10,000 aerospace jobs, US airline shares tumbled after Warren Buffett disclosed he had sold his stakes in them, and Washington cast doubt on the resumption of air travel from the US this year.

The new permanent lay-offs at GE Aviation come on top of a cut of 2,600 to its US headcount last month and are expected to hit a quarter of a 52,000-strong workforce stretching from Ohio to Europe over the coming months.

The worldwide economic shutdown has been devastating for the aviation industry, with carriers warning it could take years for the sector to recover, and aircraft and engine manufacturers scrambling to slash capacity.

Steven Mnuchin, the US Treasury secretary, said it was "too hard to tell" if the US would relax restrictions on international travel to Asia and Europe this year. President Donald Trump was looking for "ways to stimulate travel", Mr Mnuchin said, but he suggested that the effort would initially be limited to travel within the US.

Asked on Fox Business if global travel would reopen this year, Mr Mnuchin said: "Too hard to tell at this point. I hope down the road it is . . . Our priority is opening up the domestic economy."

He added: "For business people that do need to travel, there will be travel on a limited basis. But this is a great time for people to explore America."

The aerospace industry is facing a severe drop in demand after more than a decade of booming orders. Airbus and Boeing have cut production by 35 per cent and 50 per cent, respectively. Rolls-Royce, the UK engine maker, is preparing to cut 8,000 jobs and 12,000 will go at British Airways.

"To protect our business, we have responded with difficult cost-cutting actions over the past two months. Unfortunately, more is required as we scale the business to the realities of our commercial market," David Joyce, chief executive of GE Aviation, told staff.

The cuts in a business that makes engines, components and integrated systems for commercial, military and business aircraft were "the required response to the continued contraction of the industry and its protracted recovery", Mr Joyce said.

Lay-offs at GE Aviation come on top of a cut of 2,600 to its US headcount last month and are set to hit a quarter of a 52,000-strong workforce

Shares in Delta Air Lines were down 9 per cent in midday trade yesterday, with United and Southwest down 8 per cent and American down 10 per cent after Mr Buffett said his Berkshire Hathaway group had exited the carriers last month. The investment vehicle sold more than $6bn in stock related to airline trade. "It turns out I was wrong," Mr Buffett said during the annual investor meeting at the weekend.

"The airline business — and I may be wrong and I hope I'm wrong — I think it has changed in a very major way."

Additional reporting by Mamta Badkar in New York

Briefing

▸ **Global donors in €7.4bn research pledge**
An online, G20-backed pledging conference has nearly hit a €7.5bn target to fund testing, treatment and a vaccine for Covid-19, despite a number of high-profile absentees including the US.— PAGE 2

▸ **Norwegian investors clear way for rescue**
Shareholders in the low-cost airline have backed a debt-for-equity swap enabling it to unlock a state rescue after dramatic weekend talks — even though they will be all but wiped out.— PAGE 5; LEX, PAGE 16

▸ **France and Netherlands in EU trade call**
Paris and The Hague have jointly urged tougher enforcement of green and labour standards in EU trade deals, saying activities of countries granted access to its market must be better policed.— PAGE 4

▸ **Australia and New Zealand 'bubble' bid**
Wellington premier Jacinda Ardern and Australia's cabinet will holds talks today to discuss a "trans-Tasman travel bubble" and work on a Covid-19 contact tracing phone app.— PAGE 3

▸ **Silver Lake agrees Reliance Jio stake**
The Silicon Valley private equity firm has agreed to invest $750m in Mukesh Ambani's fast-growing Indian digital services company, less than two weeks after Facebook took a $5.7bn stake.— PAGE 5

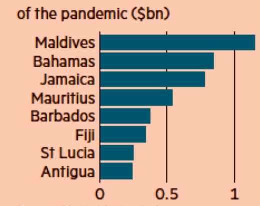
▸ **Japan housebuilders queue for the toilet**
A shortage of lavatories from Chinese factories in mid-March, peak buying season as people move house before the new financial year, has sparked surging demand from Japan's builders.— PAGE 6

▸ **Lower eurozone growth looms**
The latest European Central Bank survey of professional forecasters has shown that eurozone growth and inflation rates are expected to fall sharply while unemployment surges.— PAGE 4

Datawatch

Island hoping

Assistance needed to offset the cost of the pandemic ($bn)



Sources: Unctad (estimates)

Islands dependent on income from visitors will need significant financial help this year, as tourism is ravaged by the pandemic. The Maldives, where the sector makes up two-thirds of GDP, is expected to need at least $1.15bn

Claims of secret burials in Tanzania virus cover-up

President John Magufuli made a point of going to church and declaring the 'satanic' coronavirus could not survive among the faithful while other African leaders were preparing for lockdown. On Sunday he said a laboratory was fabricating positive results under the influence of 'imperialists'. Now doctors and opposition leaders say Tanzania's government is covering up the extent of the crisis, even carrying out secret night burials while hospitals overflow.

Analysis ▸ PAGE 3

Top Amazon engineer quits over firing of whistleblowers with Covid concerns

PATRICIA NILSSON — LONDON

One of Amazon's most senior software engineers has quit in protest over the retailer's dismissal of whistleblowers who brought attention to safety concerns among its warehouse workers.

Tim Bray, a vice-president and top engineer at Amazon Web Services, the retailer's cloud computing division, said yesterday he had resigned after having "escalated [concerns] through the proper channels and by the book".

"I quit in dismay at Amazon firing whistleblowers who were making noise about warehouse employees frightened of Covid-19," he said in a blog post.

Amazon refused to comment.

Unprecedented demand for online shopping during the pandemic has prompted the company, a world leader in ecommerce and cloud computing, to hire 175,000 new warehouse workers in just under two months. However, Amazon has been accused of putting employees in danger by not slowing the pace of their work or providing them with adequate protective equipment.

Surging sales have also come at a high cost, with Amazon warning that it might spend $4bn on Covid-related charges in the second quarter of the year, with excess sales largely wiped out.

But many still argue that the company has not done enough. In Italy, workers have gone on strike at several distribution centres, protesting against unsafe conditions and a lack of information on infected colleagues.

France has ordered Amazon to ship only "essential" items until it can ensure sufficient health and safety measures in warehouses.

In the US, where unions are weak, Amazon has fired several workers who were behind protests and walkouts organised to draw attention to concern over staff safety.

Chris Smalls, who in March organised a walkout at an Amazon fulfilment centre in New York, was fired by Amazon for "violating social distancing guidelines and putting the safety of others at risk". The company has since also laid off office workers who voiced concern over their roughly 1m colleagues working in Amazon warehouses.

Christy Hoffman, general secretary of international federation UNI Global Union, said criticism of Amazon's treatment of workers in its warehouses was affecting its ability to retain tech talent. "Many people came to Amazon to make the world a better place, and now you see top leaders saying that the company does not share that mission," she said.

World Markets

STOCK MARKETS

	May 4	prev	%chg
S&P 500	2819.95	2830.71	-0.38
Nasdaq Composite	8651.53	8604.95	0.54
Dow Jones Ind	23507.71	23723.69	-0.91
FTSEurofirst 300	1284.39	1318.07	-2.56
Euro Stoxx 50	2812.45	2927.93	-3.94
FTSE 100	5753.78	5763.06	-0.16
FTSE All-Share	3178.59	3189.41	-0.34
CAC 40	4378.23	4572.18	-4.24
Xetra Dax	10466.80	10861.64	-3.64
Nikkei	19619.35	20193.69	-2.84
Hang Seng	23613.80	24643.59	-4.18
MSCI World $	2004.79	2052.85	-2.34
MSCI EM $	916.77	924.94	-0.88
MSCI ACWI $	478.56	489.17	-2.17

CURRENCIES

	May 4	prev		May 4	prev
$ per €	1.092	1.101	£ per $	0.805	0.797
$ per £	1.242	1.254	€ per £	1.138	1.139
£ per €	0.879	0.878	¥ per €	116.725	117.686
¥ per $	106.925	106.905	£ index	78.445	78.971
¥ per £	132.811	134.086	SFr per £	1.198	1.203
SFr per €	1.053	1.056			
€ per $	0.916	0.908			

COMMODITIES

	May 4	prev	%chg
Oil WTI $	20.11	19.78	1.67
Oil Brent $	26.84	26.44	1.51
Gold $	1686.25	1702.75	-0.97

INTEREST RATES

	price	yield	chg
US Gov 10 yr		0.63	0.01
UK Gov 10 yr		0.23	-0.02
Ger Gov 10 yr	105.85	-0.57	0.03
Jpn Gov 10 yr		-0.03	0.00
US Gov 30 yr	134.13	1.28	0.02
Ger Gov 2 yr	105.36	-0.76	0.02

	price	prev	chg
Fed Funds Eff	0.05	0.65	-0.60
US 3m Bills	0.12	0.09	0.03
Euro Libor 3m	-0.17	-0.19	0.02
UK 3m	0.55	0.59	-0.04

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CORONAVIRUS ROUND-UP

New York state governor outlines rules permitting regions to end shutdowns

Governor Andrew Cuomo detailed the conditions regions in New York state will have to satisfy in order to reopen on May 15 as it recorded its lowest daily coronavirus death toll — 226 — in more than a month.

To resume normal operations, an area of the state will have to demonstrate that its caseload has been declining for 14 days. It must also have at least 30 per cent spare capacity in its hospitals and a 90-day supply of protective equipment for staff.

Iran will allow Friday prayers and mosque reopenings in selected towns

Iran is set to hold Friday prayers this week and has reopened mosques in a handful of towns believed to pose a low risk to public health after about two months of closure.

Iran's health ministry said prayers would be held in 157 towns on Friday while people could go to mosques in 132 towns from Monday. Worshippers can spend a maximum of half an hour in mosques and have to wear face masks and gloves, while no tea can be served.

Indians toast end of alcohol ban

Residents of Bangalore line up the buy alcohol yesterday as India ended six weeks of strict prohibition. The ban on alcohol was aimed at limiting social gatherings but it also deprived state governments of vital tax revenues.

Vestager urges European states to focus on adopting decentralised tracing apps

The EU is pushing member states to agree to a "decentralised" approach when it comes to deploying tracing apps to help contain the pandemic.

Executive vice-president Margrethe Vestager told the European Parliament: "We're discussing with members how to build a system where existing apps can talk to one another so cross-border travel becomes safe."

That was why working to have a consensus towards decentralised storage was important, she added.

Hundreds moved from Greek camp to reduce risk of infection on Lesbos

Almost 500 people left the Moria camp at the weekend in an effort to prevent the spread of coronavirus on Lesbos, the Greek migration ministry said.

No confirmed case of Covid-19 has been reported at any of the reception centres hosting an estimated 38,000 asylum seekers on five eastern Greek islands.

Six Greek residents of Lesbos infected with the virus have recovered, and facilities at Moria have been extended to provide testing for local people.

Cases so far

3,544,281

and 248,816 deaths by 6pm BST on May 4

Source: Johns Hopkins University, CSSE

Read more at ft.com/coronavirus

Treatment initiative

G20 funding push nears €7.5bn goal

EU-led conference seeks to develop vaccine and distribute worldwide

MICHAEL PEEL — BRUSSELS
KATRINA MANSON — WASHINGTON
ANDREW JACK — LONDON

An international donor drive has all but hit its target to raise €7.5bn to boost testing and treatment for coronavirus and the development and distribution of a vaccine, despite high-profile absentees including the US.

An online G20-backed pledging conference led by Ursula von der Leyen, European Commission president, involving more than 40 countries had posted €7.4bn when it closed yesterday.

The pledging effort underscored both the international urgency to find ways to combat the virus and the financial, political and logistical obstacles to achieving that goal.

"All this money will help kick-start unprecedented global co-operation, and it will create a truly unique global public good," said Ms von der Leyen, as she called for a multilateral approach at a time of rising global tensions over the pandemic. "But more — much more — will be needed in the months to come."

Big donations announced yesterday included €1bn from the commission, $1bn from Norway and $500m from Saudi Arabia, which holds the G20's rotating presidency. The total is backdated to include donations announced since January. The pledge window also extends until later this month to allow other countries time to win cabinet or parliamentary approvals for funding.

The event was part of a broader initiative launch by the World Health Organization, from which President Donald Trump has suspended US funding for allegedly mishandling the crisis. The WHO denies this.

The US said it supported the EU but defended its decision not to join the effort. It said it was already the single largest contributor to the global virus response and funded many of the health bodies and programmes that would benefit from yesterday's fundraiser.

"As the global leader in Covid-19 foreign assistance we welcome the EU efforts [for] pledges for additional contributions to combat this pandemic," said a senior administration official.

Fellow G20 members Russia, India, Argentina, Brazil and Indonesia also stayed away from the conference.

> 'This money will help kick-start global co-operation and create a truly unique global public good'

China joined the Brussels conference through Zhang Ming, its ambassador to the EU. He warned that "blame games" were "not useful at all", in a sign of tensions over what critics see as China's attempts to avoid responsibility for the pandemic that originated in Wuhan.

Supporters of pledging argue it could prove cost-effective as well as life-saving, if development of a vaccine spares the world months or years of economic contraction and waves of reinfection.

Global health bodies suggest the full cost of worldwide inoculation could reach $25bn, once funding needed to distribute vaccine doses is considered.

Jeremy Farrar, director of Wellcome, the medical foundation, said: "Further funding delays risk this critical research not happening and take us further away from finding effective treatments."

On the move
Thailand eases curbs

Traditional Thai dancers wearing protective face shields perform at the Erawan shrine in Bangkok yesterday after the Thai government relaxed measures to combat the spread of the Covid-19. Various businesses were allowed to reopen but the government warned that strict measures would be reimposed should cases increase again.

Mladen Antonov/AFP/Getty Images

Policy U-turn. Emergency measures

Corporate Brazil frets over Bolsonaro

Business grows increasingly worried that the economic and political outlook is worsening

ANDRES SCHIPANI AND BRYAN HARRIS
SAO PAULO

Wearing a green suit and golden tie and shoes — the colours of Brazil's flag — to meet president Jair Bolsonaro, Luciano Hang, owner of department store chain Havan, belongs to a shrinking cohort of faithful, who profess unwavering trust in the far-right leader. "There is a sensation of confidence and optimism," he says after the meeting.

An increasing number of — more discreet — business leaders are nurturing doubts, however. Brazil's business community rejoiced about the president's free market views when he was elected. It is now anxious that the economic and political outlook under the mercurial president is fast deteriorating.

A key business confidence index by FGV IBRE fell in April to the lowest level on record, reflecting the prospect of a second recession in less than five years, stemming from the Covid-19 pandemic.

The death toll from coronavirus in Latin America's largest economy has surpassed that of China, with an official count of more than 7,025 victims. A political crisis rages on following a judicial investigation into President Jair Bolsonaro. The liberal economic agenda of Paulo Guedes, finance minister, has been derailed by emergency measures amid rumours he will leave the administration, pushing the Brazilian currency last week to a new low.

"People are starting to say this is not what we have hoped for," said a senior official at a business lobby group.

"As long as there is this combination of extremely low activity level and high uncertainty about the future, unfortunately business confidence will remain very low," said Aloisio Campelo Junior of FGV Ibre, whose industrial confidence index also dropped to its worst level.

It is a radical change from only months ago. Then, Mr Guedes, the University of Chicago-educated economy minister, was on track to revamp Brazil's economy by rooting out vested interests, liberalising markets and ushering in a more open style of capitalism through reforms. But the abrupt resignation of justice minister Sérgio Moro last month fuelled fears Mr Guedes — one of the few remaining technocratic moderates in the administration — could be next. His departure would kill off hopes for post-pandemic reforms.

"What Guedes preached was music to our ears. If he leaves, it would be a total disaster," said a senior banker from São Paulo's Avenida Faria Lima, known as Brazil's Wall Street, where until only recently the optimism was palpable following the passage of crucial reforms at the end of last year.

The president tried to reassure investors last week that "the man who decides the economy in Brazil is called Paulo Guedes". The economy minister then reiterated the importance "of structural reforms" to emerge from the crisis. Local business people remain unconvinced. "How can we know this is sustainable? There is a high level of irresponsibility as Bolsonaro is very impulsive," said the banker.

When questioned about the rising death toll, Mr Bolsonaro replied: "So what?" He has clashed with his cabinet, senior lawmakers, top judges and governors over social isolation measures. On Sunday, he drew supporters in Brasília against many of those measures.

> 'There is a pandemic everywhere in the world but here you have a pandemic coupled with a political crisis'

For Alessandra Ribeiro, director of macroeconomics at consultancy Tendências, "uncertainty is the main problem, the risk is the government is going to start using fiscal policy to fuel growth". The administration is releasing a monthly cash transfer of R$600 (US$110) to low-income citizens that some fear Mr Bolsonaro may want to retain to sustain his popularity.

"The moment Guedes realises that his fiscal responsibility agenda went to waste because Bolsonaro turned to a populist economic agenda, that is when he will throw in the towel," said a top Brazilian banker.

Paulo Skaf, head of Fiesp, the powerful industry lobby group in São Paulo, said: "Paulo Guedes is not leaving," stressing that "the reforms at this point gave way to emergency actions".

A financier close to the Bolsonaro family said "the drop in fiscal conservatism is not based on Guedes being out of favour but on the realities of Covid".

Still, one infrastructure investor said: "Bolsonaro has been screwing up with a certain frequency. There is a pandemic everywhere in the world but here you have a pandemic coupled with a political crisis. It is a tremendous problem."

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Latin America

Bolivia leader faces claims of using outbreak to tighten grip

GIDEON LONG — BOGOTA

When Evo Morales quit the Bolivian presidency amid electoral fraud allegations in November after 14 years in power, it seemed his replacement would be in the job for a few weeks — just long enough to organise fresh elections and oversee a transition.

But coronavirus and interim president Jeanine Áñez's political ambitions have changed that. After repeatedly saying she had no intention of running for the presidency, she performed a U-turn in January and threw her hat in the ring.

Then came the virus. The election, scheduled for this weekend, was shelved. Ms Áñez has free rein to rule until a new one can be organised. On Thursday, parliament passed a law stating the poll must be held by August 2, but Ms Áñez said the election should be held "when the pandemic allows us to".

As Mr Morales, who fled to Mexico after resigning, noted ruefully in an interview on April 20, the pandemic fits her plans "like a ring on a finger".

Some have accused the rightwing former senator of exploiting the virus for her electoral advantage.

In an echo of US president Donald Trump's "personally signed" economic stimulus cheques, she put her own name at the bottom of her government's announcements of financial measures to combat Covid-19. On her Twitter account, she describes herself as "president" — not interim or acting president.

"The government has overstepped its bounds," said Eduardo Gamarra, a Bolivian professor at Florida International University. "When talking about the virus they're essentially in campaign mode. They're proselytising at the same time as doing their jobs."

In some ways it is remarkable that Ms Áñez is in power at all. When Mr Morales fled, she was only fourth in line to his throne, but the three men ahead of her quit, paving the way for her ascent.

Her response to the pandemic has been forthright.

Jeanine Áñez: free rein to rule after elections this weekend were shelved

She imposed a lockdown in March when there were just 24 confirmed cases. The country has registered only 1,110 cases of Covid-19 and 59 deaths, below the Latin American average, although testing has been sporadic.

Polls suggest most Bolivians like the tough approach. When she extended the lockdown, 76 per cent of people approved, but that does not mean they want her as their next president.

The last key poll before the pandemic suggested she was third in voter intentions, behind Luis Arce, Mr Morales's longstanding socialist finance minister, and Carlos Mesa, a former president and the more centrist of the candidates. Some polls since have suggested Ms Áñez has clawed back ground but they have been online because of lockdown.

"In a country like Bolivia online polls can't really be trusted because so many people, especially in rural areas, don't have access to the internet," said Fernando Molina, a journalist and political commentator in La Paz.

Lawyers and human rights groups have expressed concern about the government's actions. When the Áñez administration extended the lockdown it warned that "individuals who . . . misinform or cause uncertainty to the population will be subject to criminal charges for crimes against public health".

José Miguel Vivanco, director of Human Rights Watch in New York, responded: "The Bolivian government appears to be taking advantage of the pandemic to give itself the power to punish anyone who publishes information the government deems 'incorrect'."

The Committee to Protect Journalists said the "vague regulations" made the government "look more concerned about its public image than about an effective response to the crisis".

On April 15, government minister Arturo Murillo said security forces had arrested 67 "political actors" for taking part in "destabilisation and disinformation movements". He said 37 of them had been tried and convicted. Amnesty International has voiced concern and requested more information.

Tanzanian leader accused of suppressing death statistics

President blames 'imperialists' for the large number of positive results in tests

DAVID PILLING — LONDON

Tanzania's government is covering up the true extent of the coronavirus pandemic with secret burials at night while hospitals overflow and three parliamentarians are thought to have died from the disease, say doctors, opposition leaders and activists.

President John Magufuli, who has spent much of the crisis in his home village 750 miles west of Dar es Salaam, the commercial capital, denies the virus is serious and has urged people to stay at work and attend religious ceremonies.

On Sunday, in a national address, Mr Magufuli accused the national laboratory of fabricating results under the influence of what he called imperialists. "We only see them releasing positive, positive, positive results," he said.

Zitto Kabwe, an opposition leader, said the allegation could cause people to lose faith in the health system's response to Covid-19. He cited secret records kept by doctors that, he said, showed the number of infections nationally was six times the official figure of 480. According to government records, 16 people have died of the virus.

Night burials had been held in different parts of the country, including Arusha and Dar es Salaam, with gravediggers and pallbearers wearing protective clothing, said Mr Kabwe, whose party had sent people to film ceremonies at Uninio, north of Dar es Salaam.

Although schools have been closed since mid-March, social distancing has not been enforced strictly, making the nation of 56m people unusual in Africa, where many countries have imposed lockdowns, curfews and other controls.

Last week, Augustine Mahiga, 74, justice minister, became the third parliamentarian in 11 days to die after a short illness, though there was no official confirmation it was Covid-19. The three deaths represented almost 1 per cent of the 384-member national assembly, and the opposition Chadema party said its MPs would no longer attend.

The government said it had implemented more than 40 measures to curb the pandemic and was learning from other countries. It defended its statistics and denied it was hiding the extent of the outbreak, adding: "It takes one to be insane to insinuate that Tanzania is not taking serious measures or hiding data."

A person close to the medical profession said it was almost impossible to secure a hospital bed in several cities. The Aga Khan hospital in Dar es Salaam had a well-equipped ward for 80 coronavirus patients, but several were dying each night, he said.

"There is such a hush-up on how many people are really sick with Covid . . . all the hospitals are full," he said. "We always thought it would be the elderly that would succumb, but we are also looking at cases . . . in their 30s and 40s who we know have passed away."

Fatma Karume, a lawyer and government critic, said: "On Monday I woke up to find that five people I knew had passed away from respiratory illnesses."

People were not admitting that they were infected after the government claimed only the weak died from Covid-19. "They want to own the numbers and the statistics," she said, adding that a lawyer who had urged more transparency had been arrested.

Ms Karume said she blamed Mr Magufuli for retreating to his home village of Chato on Lake Victoria. "He basically told us to go back to work and pray, then he got on his private presidential jet, went to Chato and left us to it."

Mr Magufuli, elected in 2015 on a pledge to eradicate corruption, has become increasingly authoritarian, declaring pregnant girls should be banned from school and clamping down on the internet and press freedom.

While other African leaders reacted swiftly to coronavirus, closing frontiers and preparing for lockdown, Mr Magufuli made a point of attending church gatherings, declaring the "satanic" virus could not survive in the faithful.

In his criticism of the laboratory, Mr Magufuli said he had arranged for samples of blood from goats, sheep and the francolin bird, as well as papaya, jackfruit and engine oil, to be sent for testing. The samples had been given false identities, he said. "We took the papaya sample and gave it the name Elizabeth Ann, 26-year-old female. The papaya results were positive," he said. "There were many such shocking outcomes."

If Mr Magufuli was so confident the risk had been exaggerated, said Mr Kabwe, why was he "hiding" in Chato? "We have been asking him to come out and lead this fight," he added.

Additional reporting by Donald Magomere in Nairobi

'There is such a hush-up on how many people are really sick with Covid. All the hospitals are full'

Dar es Salaam: enforcement of social distancing has been less than stringent in Tanzania
Ericky Boniphace/ AFP/ Getty Images

Europe

Anxiety and caution greet easing of controls

VICTOR MALLET — PARIS
DANIEL DOMBEY — MADRID
GUY CHAZAN — BERLIN

Union leaders, politicians and the wider public in France, Germany and Spain are urging governments not to move too quickly as they ease coronavirus lockdown measures.

In France, more than 300 mayors in the Paris area have protested about the planned reopening of schools from next week when the lockdown is eased.

The 329 mayors in the Ile-de-France region, including Anne Hidalgo, the Socialist mayor of the city of Paris, signed a declaration warning that the government's timetable was "untenable and unrealistic". They wrote: "The health measures to put in place are serious ones and that is as it should be: this cannot be improvised."

Companies and trade unions in the French transport industry, including state railway SNCF and the Paris metro and bus network RATP, are equally wary about the planned end of the lockdown from May 11, warning of the difficulty of enforcing social distancing and the wearing of masks by passengers on crowded trains and station platforms.

Private sector employers across Europe, whose operations will in many cases have been stopped for eight weeks by measures to arrest the spread of coronavirus, are eager to return to work as soon as possible. But even they are concerned that they will be held liable for illnesses and deaths among their staff if they fail to impose social distancing — even in office lifts — or cannot provide the right safety equipment.

Edouard Philippe, the French prime minister, pushed back against the government's critics yesterday, reminding the Senate that the closure of schools was "a catastrophe" for the most vulnerable children and probably a "time bomb" for the 12m in education.

He has also warned of the disastrous effects on the economy of a prolonged shutdown. "It's imperative that economic life restarts quickly," Mr Philippe said.

Across Europe, almost all governments are struggling to strike a delicate balance. On the one hand, they want to prevent a new surge of cases and deaths that could come with a careless "deconfinement" of the population. On the other, they fear the economic and social damage that a prolonged economic shutdown would cause.

In Italy, the worst-hit country in the EU at the start of the pandemic, 4.4m returned to work yesterday in a pioneering relaxation of strict lockdown rules. Cafés and bars reopened for takeaway service and trickles of traffic returned to the normally jammed main streets of Rome.

In Spain yesterday, the watchword was caution. Several people questioned in Madrid said they were worried about another surge in coronavirus cases, because many neglected to wear masks or keep their distance from each other when a ban on outdoor walks and exercise was relaxed at the weekend.

With non-essential shops now able to open by appointment, some said health concerns took second place to making ends meet. "We have no choice," said María Ángeles Lezamit on her first day back at her hairdressing salon in the Hortaleza district of Madrid. "We have to work, we have to eat; we have to pay our bills; we have to live. It isn't a question of fear, it's a question of survival."

The Spanish Confederation of Business Organisations, the employers' group, called for a "safe, gradual and phased" return to ordinary life to avoid further outbreaks and lockdowns "which would have a grave impact on economic activity". Spain has a complex, four-stage plan to move in mid-July towards the so-called new normal — in which much of the economy is functioning again but social distancing rules are still observed.

Even in Germany, which has kept down its death toll with a well resourced hospital system and rigorous testing for Covid-19, trade unions have warned against a hasty return to normal. "Protection of health must be front and centre, in order to exclude the risk of a second wave of infection," said Reiner Hoffmann, head of the DGB, Germany's trade union federation.

As in France, where employers and the moderate CFDT and CFTC union groups have called for a careful return to work from next Monday, fear of Covid-19 among the general population often trumps fear of economic or educational disaster.

According to a recent opinion poll by YouGov for the DPA news agency, 49 per cent of Germans think the easing of the shutdown is happening too quickly.

Additional reporting by Miles Johnson in Rome

Difficulty enforcing the wearing of masks is one cause for concern

State of alert

Spanish parties on collision course over lockdown powers

DANIEL DOMBEY — MADRID

Spain's coronavirus emergency collided with its polarised politics yesterday, as the main opposition party announced it would no longer back the government over the harsh, seven-week-old lockdown — just as official figures indicated the pandemic was under control.

Pablo Casado, the leader of the centre-right People's party, said he would not support a further two-week prolongation of the state of alert, the extraordinary legal regime underpinning the lockdown.

As it stands, the state of alert, which grants the government sweeping powers to restrict movement and rule by decree, expires on Sunday.

The lockdown is slowly being phased out. As of yesterday, non-essential shops were permitted to open for prior appointments and restaurants to provide takeaway food. Mr Casado argued that as a result, the leftwing government should seek to use legislation, not overarching powers, to enact any limits on people's movements and to provide economic relief.

"[Prime Minister Pedro] Sánchez is using the Spanish as hostages to prolong the state of alert," he said. "It does not make sense to suggest that people go out and drink a vermouth while asking for extraordinary powers."

Mr Sánchez insisted that schemes to provide economic relief, such as temporary lay-off schemes benefiting 3.5m people, depend on the state of alert, an argument Mr Casado labelled "blackmail".

The confrontation underlined the political and health risks of Spain's efforts to relax the lockdown, which the government described as potentially the most dangerous stage of the pandemic.

According to health ministry figures released yesterday, the daily death toll from the virus remained at 164 for the second consecutive day, the lowest level since March 18, while there was just one new confirmed case in Madrid and only 356 nationwide.

But the government argued that, without strict province-by-province controls, the planned transition to a "new normality" over the next six to eight weeks risked sparking a new spike in infections.

The impasse continued despite Mr Sánchez pleading for Mr Casado to change his mind in a phone call yesterday. It ends a period in which the coalition government has been able to count on the PP's support for its extraordinary powers, despite deep tensions between left and right. The far-right Vox party has already shifted from supporting to opposing the state of alert, putting pressure on the more centrist PP.

The government said that the PP's position risked "health and economic chaos".

"I don't want to be alarmist but, in effect, if [the state of alert] falls away, everyone will have to go back to their usual activity, without restrictions on their movement," said José Luis Ábalos, transport minister.

The parliamentary vote on extending the measure is due tomorrow. Pablo Simón, professor of politics at Madrid's Carlos III University, said he expected the PP would ultimately abstain and the government would need to negotiate with Basque nationalists.

'Sánchez is using the Spanish as hostages to prolong the state of alert'
Pablo Casado, People's party

Takeda

Pharma group urges lifting of barriers to plasma treatment

ANDREW JACK — LONDON

Regulations on blood donations should be overhauled to accelerate the testing and treatment of coronavirus patients with the plasma it contains, a drugs company developing the therapy said.

Christophe Weber, chief executive of Takeda, the Japanese pharmaceuticals group, called for fewer barriers to the collection and use of convalescent plasma which is pooled from patients who have recovered from the virus.

Citing "cultural and ethical issues" restricting the increased production of experimental pooled plasma therapies derived from blood, he said: "It requires every country to allow it. We will need flexibility to accelerate the process."

Plasma in those who have recovered from Covid-19 contains antibodies with the potential to kill the virus. Researchers have highlighted convalescent plasma's potential as a therapy. Blood plasma has been given to patients in a number of cases, with some success.

The method has been used to tackle other infectious diseases including Sars, Mers and Ebola, as well as Spanish flu a century ago. Doctors in several countries are running trials to confirm the initial promise.

The approach offers scope to swiftly treat the most severely ill patients, especially as testing and production of other experimental medicines and vaccines are still many months from realisation.

By contrast, Takeda is one of a number of companies launching clinical trials using pooled, purified and concentrated versions of convalescent plasma derived from multiple donors, known as hyperimmune globulin.

Mr Weber said individual donations would "never be a long-term solution" as they could not be scaled sufficiently. But Takeda and others are testing therapies made from combined and purified versions of recovered patients' plasma on a large scale with more antibodies.

Last month, pharma companies, including Takeda, working on plasma-derived therapies, launched the CoV-Ig-19 Plasma Alliance, which is refocusing its network of donation centres to pool convalescent plasma where allowed, including Austria, the Czech Republic, Germany, Hungary and the US.

Separately, the European Commission has recently issued guidelines and is working with the European Blood Alliance, a network of national blood organisations, to expand capacity to collect plasma across the EU.

Flexibility: Japan's Takeda wants fewer barriers on blood plasma use from recovered Covid-19 patients

Trans-Tasman agreement

Australia and New Zealand in talks to restore travel links

JAMIE SMYTH — SYDNEY
EDWARD WHITE — WELLINGTON

Australia and New Zealand will hold talks today to establish a "trans-Tasman travel bubble" in one of the first moves to restore international links following their success in suppressing coronavirus.

Jacinda Ardern, New Zealand's prime minister, will join Australia's cabinet in a meeting to discuss the steps required to resume unrestricted travel between the countries and work on a Covid-19 contact tracing mobile phone app.

The development follows efforts by the trade ministers of both countries and some of their Pacific Ocean counterparts to agree guidelines to enable essential business travel.

Ms Ardern said there would not be an immediate relaxation of international travel restrictions with Australia, which mandates a 14-day quarantine period for passengers in either direction. But she said Wellington and Canberra were working towards similar timelines for resuming quarantine-free travel, which would provide huge advantages to both nations.

"Both our countries' strong record on fighting the virus has placed us in the enviable position of being able to plan the next stage in our economic rebuild and to include trans-Tasman travel and engagement in our strategy," she said.

New Zealand reported no new cases of coronavirus yesterday for the first time since March 16. Australia has 6,825 confirmed cases but has slowed the rate of infection dramatically and begun to ease social distancing restrictions and open up parts of its economy.

In preparation for the resumption of Australia's rugby league season on May 28, the New Zealand Warriors were granted permission to fly to New South Wales at the weekend to begin training.

On Saturday, trade ministers from Australia, Canada, South Korea, New Zealand and Singapore agreed a multilateral effort to resume the flow of goods, services and personnel.

The plan includes "guidelines to allow, on an exceptional basis, essential cross-border travel for purposes such as maintaining global supply chains, including essential business travel", they said.

Ben Cowling, a professor in epidemiology at the University of Hong Kong, said while such agreements might enable travel without 14-day quarantine periods, the resumption of flights would still raise the risk of new opportunities for infection.

"Not everywhere will be able to do this — and also it is the kind of thing that may be in place for a while and then stopped for a while if numbers [of new infections] were to go up in a particular place," Mr Cowling added.

European Commission

Brussels urged to toughen trade terms

France and Netherlands want action on labour and environmental standards

JIM BRUNSDEN — BRUSSELS
VICTOR MALLET — PARIS

France and the Netherlands have called for tougher enforcement of environmental and labour standards in EU trade deals, saying the bloc needs to police the activities of countries granted preferential access to its market.

Paris and The Hague have drawn up proposals urging the EU to be prepared to impose higher tariffs against countries that flout sustainable development commitments.

They also want the European Commission to press on with plans for a "carbon border adjustment mechanism" — a levy on imports from non-EU countries based on their carbon footprint.

"The EU should strive for more ambitious [trade and sustainable development] chapters and ensure effective implementation," a document prepared by the French and Dutch trade ministries says. "Trade policy instruments can provide additional leverage to the implementation of international environmental and labour standards."

The call marks an unusual alliance between the Netherlands, an EU state traditionally most favourable towards free trade, and France, which has long had reservations about the competitive pressure trade liberalisation can place on its farmers and industrial base.

The Dutch government is facing a backlash against trade deals at home: a deal between the EU and Canada only narrowly survived a vote in the lower house of parliament this year. The Dutch senate will have a hearing on the landmark agreement next week.

The Franco-Dutch note is expected to feed into wider about how the EU should rethink economic and commercial policy after the Covid-19 pandemic.

French President Emmanuel Macron has said broken supply chains and medical shortages have reinforced his argument for a "sovereign" Europe that invests in high-tech industries and blocks access to its market for those unwilling to follow its rules.

Phil Hogan, EU trade commissioner, has said a balance will need to be struck to ensure the European economy can continue to reap the benefits of trade while tackling "unfair competition" that could undermine EU companies.

A deal Brussels negotiated last year with South America's Mercosur bloc caused a backlash in some EU states, driven by anger at deforestation in the Amazon and about beef imports that compete with local producers.

Sigrid Kaag, Dutch trade minister, and Jean-Baptiste Lemoyne, her French counterpart, told other EU capitals last month they were working on the joint plan. Diplomats said the text was finalised last week and would be circulated to capitals in the coming days.

> The note is expected to feed into wider debates about how the EU should rethink its economic and commercial policy

It suggests trade deals be configured in a way that would raise or lower tariffs in line with countries' performance in meeting sustainability obligations baked into the agreements, such as respect for climate change commitments and International Labour Organization conventions.

Brussels, which is in dispute with South Korea over what it says is Seoul's failure to respect ILO rules, would be able to put tariffs back up "in the event of a breach of those provisions".

"Given the lack of progress in compliance . . . in some partner countries multiple years after trade agreements were concluded, the EU should raise the ambition and improve the implementation," the document adds.

Italy. League party

Venice's rising star takes shine off Salvini

Zaia is tipped as a leadership challenger after his Covid fight strategy grabs global attention

MILES JOHNSON — ROME

For four years, Matteo Salvini has been the rising force in Italian politics, with his transformation of the League party from a northern separatist outfit into an Italian nationalist movement prompting many to predict his triumphant arrival in Rome as prime minister.

But as Covid-19 rages through Italy, the leader dubbed *Il Capitano* has struggled to set the agenda as he once did, and the League has slipped in the polls. With Mr Salvini's star fading, observers say the most dangerous threat to his fortunes may come not from his many enemies, but from inside his own party.

As Italy, one of the countries hardest hit by the pandemic, struggles to deal with the fallout, two League politicians have captured national attention: Attilio Fontana, regional governor of Lombardy, with Milan at its centre, and Luca Zaia, his counterpart in Veneto, the area surrounding Venice.

The two regions were the first in the country to experience widespread outbreaks. But while Mr Fontana has faced criticism for his handling of the crisis, which has seen Lombardy suffer significantly more deaths than any other region in Italy, Mr Zaia has emerged as a political winner.

The "Veneto model" is being studied around the world after a well coordinated programme of testing and tracing was credited for helping the region experience a dramatically lower mortality rate than its neighbours.

There have been 1,500 coronavirus deaths in Veneto, compared with 14,000 in Lombardy, which has double the population. Piedmont, with a smaller population than Veneto, has had twice as many deaths.

So high are Mr Zaia's approval ratings that he has been dubbed "Mr 80 per cent" by some Italian media and *Il Doge* by others, in a reference to the title of Venice's leader in its 1,100 years as a city state.

League trio: senior party figures Luca Zaia, left, Matteo Salvini, centre, and Attilio Fontana gather in Milan last September
Carlo Cozzoli/Fotogramma

He is expected to romp to a third term in regional elections to be held later this year in the wealthy, industrialised region, which accounts for around a tenth of Italian economic output.

Mr Salvini took the League from polling in low single digits when he took over in 2013 to winning 34 per cent of the national vote in last year's European elections, after pledging to clamp down on illegal immigration.

However, recent polls show support for the League falling since the coronavirus crisis began, down from above 30 per cent to the mid-20s. As the party's momentum has slowed, some Italian political observers are speculating that Mr Zaia could emerge as an unexpected challenger to Mr Salvini.

By the age of 25, Mr Zaia had been elected as a local councillor for the then Northern League, and by 1998 was elected leader of the Treviso municipality. Between 2008 and 2010 he served as agriculture minister in the government of Silvio Berlusconi, before being elected in Veneto in 2010.

A skilled politician, who is less hostile to the EU than Mr Salvini, the Veneto governor is a more natural ally of the League's core constituency of conservative northern business leaders than his rabble-rousing party leader.

Mr Salvini's economic credibility has never recovered from his "Basta euro" ("No more euro") campaign.

"The invincibility of Salvini has been broken, and Zaia is a rising star. He is a very astute and popular politician," said Roberto D'Alimonte, a professor of political science at Rome's Luiss University. "I think it is very possible we will see Zaia use his powerful base in the north-east of Italy to make a national run," he said.

A recent poll commissioned by Prof D'Alimonte for Il Sole 24 Ore asking respondents to rate how Italian politicians had handled the Covid-19 crisis put Mr Zaia top, with 46 per cent endorsing the Veneto leader. Giuseppe Conte, prime minister, won the approval of 35 per cent, while President Sergio Mattarella took 32 per cent. Mr Salvini was seventh on 19 per cent.

"A good chunk of the Italian establishment is throwing its weight behind Zaia, he is far more acceptable than Salvini in their eyes," said Francesco Galietti, head of risk consultancy Policy Sonar.

Mr Zaia has played his cards close to his chest when pressed on his national ambitions. With Veneto's elections approaching, Mr Zaia will in any case be focused on his home region.

"He is a king, but he is still the king of a small kingdom for now," said Mr Galietti. "For the first time we are seeing nationwide polls showing he is breaking through. But he is not a killer, and he respects Salvini, so I don't see him stabbing him right now."

GLOBAL INSIGHT
EUROPE

Alan Beattie

Johnson seems intent on ruling out a Brexit transition extension

The global trading system and Europe in particular have enough going on right now with the pandemic without a renewal of the Brexit imbroglio to complicate and distract. "Not now, Brexit" is the natural reaction.

But on they go: the first of three negotiating rounds on final trade arrangements concluded two weeks ago with predictably little progress. By the end of June the UK must either ask to extend the transition period during which it remains under the EU's trade regime or commit to leaving at the end of the year.

It is hard to find a single trade type (without a direct career interest) who thinks failing to extend is anything but a potential disaster. It is highly unlikely the UK and EU will have anything but a minimal deal in place by the end of the year. Result: border frictions, possibly tariffs, certainly rules of origin problems, derecognition of professional qualifications.

Business organisations are increasingly anxious. Allie Renison, head of trade and EU policy at the Institute of Directors, said: "If extending transition is the only way of ensuring business on both sides of the Channel have enough time to adapt to changes — as is standard with all trade agreements — then it must be on the table."

Yet Boris Johnson's government has not only repeatedly said it will not request an extension but deliberately blocked a bolt-hole for itself from that position, stating it would not agree even if the EU asked.

At the same time, the UK government has also increased its performative chuntering about rival trade pacts, evidently designed to scare Brussels into giving it a generous deal. This week it is relaunching the bilateral talks with the US which have been on hold since March, hoping to alarm the EU about British companies getting (frankly rather unlikely) superior preferential access to the American market.

> The most terrifying explanation is that the government genuinely believes its own rhetoric

The most terrifying explanation is that Mr Johnson's government genuinely believes its own rhetoric, that it faced down the EU and got major concessions and can do so again. The UK's deal to leave the EU in 2019 meant accepting a border down the Irish Sea and hiding it with a Potemkin customs arrangement. The arrangement was correctly regarded by most trade experts as a headlong retreat disguised as victory. To use Mr Johnson's familiar Churchillian metaphorical palette, it was the escape from Dunkirk. But perhaps the British prime minister thinks it was the Battle of Britain.

An idea is kicking around Brexiter circles that a Brexit hit to trade will barely be noticed on top of the coronavirus shock. Thus the UK can beget a Year Zero of reformulating supply chains.

However, in the latter case, it is worth remembering that coronavirus affects people, not things. Largely mechanised processes or those with socially distanced workers, such as producing food, are thus far remarkably unaffected. By contrast, port and border frictions damage all goods trade, and professional qualifications problems will affect even services delivered via a Zoom call.

For companies, there are no economies of scale in adjusting to two wrenching changes at once. As Ms Renison put it: "You cannot ask businesses trying to fight for their very survival to simultaneously plan with this kind of moving target without more clarity over what they need to adjust to."

As for households, they are unlikely to regard being hungry as well as furloughed as an improvement.

There's a cynical view that the UK government is betting the public will not be able to tell the virus shock from the Brexit shock. Coldly calculating? Badly mistaken? It is hard to tell. In any case, predictions before the pandemic that the UK would ask for an extension under whatever pretext it could find are looking less reliable now than they did then.

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Strategy criticism

Big nations' arrogance hurt Covid fight, says top Austria aide

SAM JONES — ZURICH

The "arrogance" of big countries blinded them to the risks of coronavirus and caused delays that left them struggling to control the pandemic, the businesswoman charged with plotting Austria's successful strategy against the disease has said.

Antonella Mei-Pochtler, former senior executive at consultant BCG, said Austria's early decision to lock down public life — informed by monitoring what had happened elsewhere — was critical to stopping the spread of Covid-19.

The government's strategy was shaped after a small team in the federal chancellery consulted hospitals, doctors and scientists across the world in late February and early March.

"We're a small country, but we can learn from everybody and we do not think that we know everything," Ms Mei-Pochtler said. "There is an inborn arrogance of large countries who think no other country is like them . . . small countries tend to learn much more from each other. We are much more open, to looking right, left, up and down."

On Sunday, the Austrian health ministry reported only 39 new cases of Covid-19. In total the country has had 15,531 infections, with 598 deaths, fewer over two months than the UK reported on Saturday alone. Austria was among the first countries in Europe to put stringent measures in place to control public life.

The UK, in comparison, did not impose restrictions for more than a week after Austria, and even then reluctantly, with Prime Minister Boris Johnson bemoaning measures that restricted the "ancient" right of Britons to go to the pub. The UK infection rate and death toll are starkly worse than Austria's.

The businesswoman, who was born in Italy and educated in Germany, has emerged as one of the most influential advisers to Chancellor Sebastian Kurz in his second term in office, as the world's greatest public health crisis in a century has prioritised radical thinking over bureaucratic certainties.

Ms Mei-Pochtler runs an internal "think-tank" in the chancellery that she describes as a "sparring partner" for Austria's established ministries.

She has also been put in charge of the "future operations clearing board" that will oversee Austria's normalisation of public life after the pandemic. Shops in the country are already open, and cafés and restaurants will begin serving customers again in mid-May. When the first breakouts hit northern Italy in February, Ms Mei-Pochtler said her team began calling everyone they could for expert advice, not just through Austria's diplomatic network but through their own professional and social networks.

She recounted a conference call she joined with doctors in Lombardy and Emilia Romagna in the first week of March: "They said, 'It's like war going on here'," she said. "That informed a lot of our actions."

Antonella Mei-Pochtler: her team called many people for expert advice

The information was crucial in shaping Mr Kurz's thinking, she said. Austria restricted gatherings on March 10 and went into full lockdown on March 16.

Public trust in the government and public institutions — alongside a measure of luck — had also been factors in Austria's success, Ms Mei-Pochtler said. A severe early outbreak in the ski resort of Ischgl helped galvanise public opinion and meant stringent curbs on public life were widely and quickly adhered to.

The mishandling of the Ischgl outbreak is a sensitive political topic in Austria. A group of tourists is suing Austrian authorities for not taking earlier action. Rows have also broken out over the closure of parks and wearing of masks.

But overall, Mr Kurz's government has been perceived to have done well. "The reaction of the Austrian population has been based on trust . . . we are a solidarity-based society," Ms Mei-Pochtler said.

ECB survey

Growth and inflation rates in eurozone expected to tumble

MARTIN ARNOLD — FRANKFURT
VALENTINA ROMEI — LONDON

Eurozone growth and inflation rates are expected to fall sharply and unemployment surge this year as the coronavirus crisis hits the region hard, the latest European Central Bank survey of professional forecasters shows.

In its first quarterly survey of experts since the pandemic froze activity across much of Europe, the ECB said on average they had forecast a 5.5 per cent contraction this year, against a 1.1 per cent growth forecast three months earlier.

Inflation is set to slow to 0.4 per cent this year, the 57 experts predicted in the poll conducted in the first week of April.

This was a sharp fall from their previous forecast for inflation at 1.2 per cent this year, but in line with the fall from 0.7 per cent in March to 0.4 per cent in April. It is well below the ECB's core inflation target of just below 2 per cent.

Unemployment is set to increase to 9.4 per cent, said the experts, who had earlier forecast it would be stable at 7.5 per cent. In March, unemployment was close to a 12-year-low at 7.4 per cent.

The experts forecast that growth, inflation and the labour market would recover next year. On average for 2021, they predicted growth of 4.3 per cent, inflation 1.2 per cent and unemployment 8.9 per cent.

Underlining how the pandemic has choked production and severely weakened domestic and global demand, data yesterday showed sharp falls in manufacturing activity in Spain and Italy.

Activity in Spain fell to a near record low in April amid factory closures and tumbling demand. Italy's manufacturing activity plummeted to the lowest level in more than 20 years.

Separate data released yesterday by the Spanish office for national statistics showed that in March the number of nights in non-hotel tourist accommodation, such as camping and self-catering facilities, fell 63 per cent compared with the same month last year.

Michael Moritz For non-internet groups such as department stores Covid-19 has accelerated the day of reckoning ➔ OPINION, PAGE 15

Norwegian Air investors agree deal to unlock state rescue

- Debt-for-equity blow accepted
- Move should prevent bankruptcy

RICHARD MILNE — OSLO

Investors in Norwegian Air Shuttle backed a large debt-for-equity swap that would enable the low-cost airline to unlock a state rescue after a dramatic weekend of negotiations.

Shareholders overwhelmingly supported the plan at an extraordinary meeting yesterday even though they will be all but wiped out. Bondholders backed the swap in the early hours after Norwegian sweetened its offer.

Minutes before the shareholder meeting, Norwegian announced it had reached an agreement with enough aircraft leasing companies that it should be able to convert more than NKr10bn ($970m) of debt into equity, pushing its equity ratio to 15-17 per cent, significantly higher than the 8 per cent threshold needed for the NKr3bn in government-backed loan guarantees.

'At the same time that we punch the air now and celebrate, there is still a lot of work ahead of us'

The support from all three groups means Norwegian should avoid bankruptcy after it had warned it was weeks from running out of cash. Europe's third-largest low-cost airline has warned that even with the Norwegian government rescue it is likely to need more support this year if airlines remain grounded due to the coronavirus crisis.

"It is incredible relief that we feel just now," said Jacob Schram, Norwegian's chief executive. "But at the same time that we punch the air now and celebrate, there is still a lot of work ahead of us."

Norwegian itself has said its base-case scenario is that its aircraft will be grounded until April 2021 with a full recovery only in 2022.

Its rescue plan was thrown into doubt on Friday evening by news that one of its four bondholder groups had failed to back the debt-for-equity swap. After a long weekend of negotiations, Norwegian announced on Sunday that a sweetened offer had won over these investors.

It then said yesterday morning it had received "strong support" from aircraft leasing companies to convert $730m of their debt into equity, up from $550m on Friday evening, making them likely to become the largest shareholders. Under the deal, Norwegian will only pay leasing companies from July until next Easter for aircraft it actually flies.

Existing shareholders, who will be left with only about 5 per cent of the company after the debt-for-equity swap, backed the plan later yesterday, including the fourth rights issue in the past two years from Norwegian, which will further dilute their shareholdings.

Norwegian has suffered a precipitous drop in demand because of coronavirus, as have all other airlines, but was seen as particularly vulnerable as it entered the crisis with one of the highest debt loads in the industry.

Norwegian paid the price for its rapid expansion, especially into the low-cost long-haul business, which led to its debt load spiralling. It entered 2020 after three recent rights issues and a plan to prioritise profitability over growth.

But questions remain over its future. It said last week it expected to burn through NKr300m-NKr500m in cash per month from July when it expected to have total liquidity of NKr3bn, entirely from the state rescue. Norwegian added that it was only paying "absolutely vital operational invoices" with no debt or interest payments until July.

Mr Schram said the airline would focus above all on the Nordics and would cut its long-haul business by about 40 per cent on current plans.

See Lex

Mixed bag Weight of $2bn debt burden pitches first big US retailer into bankruptcy protection

The head of J Crew's parent group said coronavirus had only exacerbated its existing problems — Angela Weiss/ AFP via Getty

ALISTAIR GRAY AND MYLES MCCORMICK

J Crew, the retailer known for colourful cashmere, Breton-stripe tops and upbeat branding, has filed for bankruptcy protection, becoming the first big US retailer to be pushed over the edge by the coronavirus pandemic.

The private equity-backed company said yesterday that its parent, Chinos Holdings, had filed for Chapter 11 relief after lockdowns to contain the spread of Covid-19 left it unable to cope with its near $2bn debt burden.

Like other bricks-and-mortar clothing chains across the US, J Crew had been struggling well before the outbreak. The maker of T-shirts and seersucker shirts made design missteps in recent years, although its Madewell denim brand has remained popular among young females.

J Crew produced revenues of $2.5bn last year, yet the company's debt load — a legacy in part of its 2011 buyout by TPG Capital and Leonard Green & Partners — inhibited its ability to take on rivals, including lower-priced H&M and Zara.

Michael Nicholson, Chinos president, said that coronavirus had caused "considerable financial strain" but added it had "only exacerbated" the chain's existing problems. About 11,000 of the retailer's 13,000 workers have already been furloughed.

The bankruptcy of New York-based J Crew, which has about 500 outlets, is the latest blow to the retail property market. It warned in the filing that it would need to close stores permanently if it could not secure "accommodations" from landlords, and was seeking court approval for "streamlined" lease rejections.

Restructuring bankers expect the impact of the pandemic will lead to more US retail failures in the weeks ahead. Debt-laden department store and mall-based chains are under particular pressure. Both Neiman Marcus and JCPenney have missed bond payments in recent weeks.

J Crew's roots are as a door-to-door clothing business, Popular Club Plan, that began in 1947. The J Crew brand was not developed until 1983 by Arthur Cinader, son of the founder, and Emily Woods, Arthur's daughter. Started as a catalogue venture, J Crew opened its first store in Lower Manhattan in 1989 and went on to build a national bricks-and-mortar presence with an Americana-inspired range.

Mickey Drexler, the US fashion retail personality, took charge in 2003 and made J Crew more upmarket. He also built the Madewell denim brand.

International expansion began in 2011 but the brand has struggled to remain relevant to modern shoppers.

Additional reporting by Lauren Indvik in London

See Lex

Silver Lake takes $750m stake in Ambani's Jio

BENJAMIN PARKIN — NEW DELHI

Silicon Valley private equity firm Silver Lake has agreed to invest Rs56.6bn ($750m) in Reliance Jio, less than two weeks after Facebook took a $5.7bn stake in Mukesh Ambani's fast-growing Indian digital services company.

Jio, backed by Mr Ambani's oil-to-retail conglomerate Reliance Industries, has attracted 388m 4G telecom subscribers since it was launched by India's richest man in 2016. It has since diversified into a range of services from ecommerce to broadband and streaming.

Facebook announced last month that it would pay $5.7bn for 10 per cent of Jio, its second-largest investment after buying messaging platform WhatsApp in 2014. Silver Lake's backing for Jio values the telecoms company at $65bn, a premium of 12.5 per cent to the valuation implied by the Facebook deal.

The investments come as deep-pocketed buyers such as Silver Lake, the technology-focused firm with $40bn in assets under management, seek opportunities as coronavirus reshapes markets around the world.

Last month, Silver Lake invested in Expedia and Airbnb, which have been hit by strain in the travel and hospitality industries. In March, the buyout group invested $1bn in social media site Twitter to help broker a ceasefire with the activist hedge fund Elliott Management.

For Reliance, the investment is an endorsement of Mr Ambani's ambition to create a homegrown Indian tech company to rival the US heavyweights.

"Silver Lake has an outstanding record of being a valuable partner for leading technology companies globally," Mr Ambani said. "Silver Lake is one of the most respected voices in technology and finance."

Jio helped to accelerate internet adoption in India by offering users cut-price 4G contracts and has sought to build up a suite of online services. In announcing Facebook's investment, Jio said it would link up with WhatsApp, which has about 400m users in India, to power an ecommerce service aimed at groceries and everyday essentials.

Jio has "brought extraordinary engineering capabilities to bear on bringing the power of low-cost digital services to a mass consumer and small businesses population", said Egon Durban, Silver Lake's co-chief executive. "The market potential they are addressing is enormous."

Radical scheme offers fresh hope of avoiding an EM debt crisis

INSIDE BUSINESS
ASIA

Robin Wigglesworth

The developing world is facing a wave of government bankruptcies as a result of the coronavirus outbreak that will probably leave past bouts of emerging markets turmoil in the shade.

More than 100 countries have appealed to the IMF for help, which has warned that emerging markets are facing "the perfect storm". A flurry of sovereign defaults is inevitable.

The IMF has cancelled six months of debt payments due from 25 countries such as Afghanistan, Haiti, Rwanda and Yemen, while the G20 countries have agreed to freeze the bilateral debts of 76 poorer, developing countries. They have urged private sector creditors, largely banks, bond funds and other commercial lenders, to do the same.

Unfortunately, organising a voluntary, broad-based debt payment freeze for emerging economies is exceptionally challenging — perhaps impossible. There is no supranational legal mechanism to compel a disparate group of investors into debt standstills for an equally motley bunch of stricken countries. Even creditors that agree might see their generosity benefit only others that refuse to countenance one.

Moreover, some countries might blanch at an enforced de facto default that could stain their creditworthiness. That raises the possibility of a rolling series of ad hoc, chaotic defaults and individually negotiated standstills and debt revamps. The ramifications would be immense for swaths of the developing world, and the damage inflicted would ratchet up tensions in the still-vulnerable global financial system.

However, a handful of prominent financial and legal academics have offered up an intriguing and at least theoretically viable solution that would offer vital relief to many developing countries, avoid technical defaults and even appeal to many creditors.

At the heart of the proposal is the World Bank setting up a "central credit facility". Countries that want relief should deposit any debt payments to this facility, rather than the accounts of creditors. The CCF would be topped up by money from the World Bank or IMF, and lent back to the countries at concessional rates to mitigate the effects of the coronavirus crisis.

This is no time for intellectual cowardice and muddle-through. Emerging markets desperately need help

In practice, this amounts to a standstill, with any debt payments funnelled straight back to stricken debtor countries, with beady-eyed monitoring to ensure it isn't wasted.

Countries would have to ask creditors to formally accept that making payments into the CCF — rather than their designated fiscal agent — would constitute a full legal discharge of their obligations, thereby avoiding a default. When the coronavirus crisis has abated, a more considered decision can then be made on whether a country does need debt relief, and if so how much.

There is a carrot: the money in the credit facility would be mingled with aid money from the supranational organisations.

The World Bank and IMF are considered "super-senior" in any debt restructuring, and never take a haircut. So any money that creditors agree to funnel into the CCF would be shielded.

Of course, a stick may also be necessary to compel reluctant creditors to go along with this. The proposal suggests that the G20 declare that the coronavirus had triggered a "state of necessity" to encourage recalcitrant creditors.

This is a reference to the International Law Commission's articles on responsibility of states for internationally wrongful acts, where a clause stipulates that countries can invoke "necessity" to excuse not fulfilling an "international obligation" if this is the only way to counter "a grave and imminent peril".

It is an elegant solution. Moreover, it is one that could probably be implemented quickly. But it does have some pitfalls. For example, despite the "necessity" doctrine it would still probably require heavy-handed moral suasion by a US administration that might be disinclined to help developing countries jilt often US-based creditors.

Yet the sense that the international community is open to radical solutions was underscored by IMF managing director Kristalina Georgieva last week, who said that the fund "may need to venture even further outside our comfort zone" and consider "whether exceptional measures might be needed in this exceptional crisis".

This is no time for intellectual cowardice and muddle-through. Emerging markets desperately need help, and this proposal offers a viable palliative. Officials should consider it seriously.

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Industrials

Thyssenkrupp tumbles on lift sale warning

Proceeds from disposal of prized business will not go as far as hoped

KAYE WIGGINS — LONDON
JOE MILLER — FRANKFURT

German industrial group Thyssenkrupp's shares fell 16 per cent yesterday, as the company warned proceeds from the sale of its crown-jewel lift business would not go as far as hoped, while private equity firms buying the unit sought to offload some of the deal's risks.

In a letter sent to Thyssenkrupp's 160,000 staff, and seen by the Financial Times, executives warned the crisis caused by the coronavirus pandemic would hit the company's restructuring plans.

"In the medium term, the corona-related outflow of liquidity will in all probability result in the financial leeway from the sale of the elevator business being much smaller than originally assumed," wrote three board members, including Martina Merz, the chief executive

The steel and materials group is in a "difficult economic situation", the letter added. "Corona is making the situation much worse. In view of the seriousness of the situation, everything must be examined and nothing can be ruled out."

Separately, the FT reported that Advent and Cinven, the private equity firms planning to buy Thyssenkrupp's lift business for €17.2bn, are seeking to offload risk by bringing extra investors into the deal, which is due to be completed in July.

While buyout firms often sell on chunks of equity after agreeing to large deals, the process is taking longer than usual as the groups try to sell down at a hefty price tag, since the deal was struck in late February before the full impact of the pandemic became clear.

However, people close to Cinven and Advent said the majority of the equity syndication was accounted for and the groups would still be able to complete the acquisition even without new investors.

Thyssenkrupp's shares began to tumble in February as fears grew about the impact of the pandemic, falling from about €11 in the middle of that month to a low of €3.55 on March 19, although they have recouped some of those losses. Yesterday morning the shares fell from €6.07 to as low as €5.08.

Shares in neighbouring steel and non-ferrous metals distributor Klöckner & Co also fell by 13 per cent yesterday, after the company reported a €21m net loss in the first quarter.

The wider MDax index, of which Thyssenkrupp is a constituent, fell by more than 3 per cent in Frankfurt.

"Thyssenkrupp's liquidity problems [negative cash flow] have been exacerbated by the crisis," said Michael Muders, a portfolio manager at German institutional investor Union. "Thyssenkrupp must now prepare for the time after the corona crisis, ie continue to reduce and restructure costs."

Essen-based Thyssenkrup, which has already furloughed 30,000 employees and announced more than 6,000 job cuts, recently secured a €1bn credit facility from Germany's state-owned development bank KfW.

The funds would be needed only if there was a delay in the closing of the lift transaction, according to a person familiar with the company's position.

Thyssenkrupp had also received half of the necessary antitrust clearances needed, a person close to the group said, although it was still waiting for approval from the European Commission.

Travel & leisure

McDonald's draws fire over Easterbrook exit package

ALISTAIR GRAY

McDonald's is facing shareholder opposition over its handling of Steve Easterbrook's dismissal, with an influential advisory group criticising an exit package for the former chief executive estimated to be worth tens of millions of dollars.

Ahead of McDonald's annual meeting this month, Glass Lewis said it had "substantial concerns" about the departure terms for Mr Easterbrook, who lost his job last November as head of the burger group after he had a romantic relationship with a colleague that violated the US company's policies.

The Englishman, who led the Chicago-based chain for more than four years, was let go on a "without cause" basis, making him eligible for a series of lucrative benefits to which he would not otherwise have been entitled.

On top of a separation payment worth $700,000 and prorated incentive plan shares worth $3m, the leaving package included a right to exercise options that were due to vest in the next three years and a share of restricted stock units the board had granted him.

The deal could be worth more than $40m, according to figures from remuneration data company Equilar.

As part of the deal, Mr Easterbrook agreed not to work for rivals such as Burger King and Subway for the next two years, disparage McDonald's on social media or give interviews about his tenure without company agreement.

Glass Lewis has recommended investors vote against the company's executive pay, and also against the re-election of director Richard Lenny, the ConAgra Brands chairman who chairs McDonald's remuneration committee.

The group's opposition threatens to add institutional shareholder backing to a campaign against Mr Easterbrook's departure terms from the trades union-affiliated CtW Investment Group.

Glass Lewis said the terms differed "drastically" from the treatment he would have received had he been fired on a "for cause" basis and illustrated "a lack of willingness on the board's part to appropriately enforce the company policy violated by Mr Easterbrook".

"Exempting CEOs from key provisions of crucial rules around corporate policy sets a questionable tone at the top," it added.

McDonald's annual meeting is due to take place online on May 21.

Olympic loss
Athletics body faces cash hit from delay

Usain Bolt in action at the 2016 Olympics in Rio. World Athletics was one of the biggest beneficiaries of those games
Kai Pfaffenbach/Reuters

World Athletics, the international governing body for track and field, is in crunch talks over the financial blow the sport faces from the postponement of this year's Olympic Games.

Sebastian Coe, World Athletics president, told the Financial Times he was in delicate negotiations with the International Olympic Committee, the games organisers, seeking to secure its share of the multibillion-dollar broadcasting deals associated with the world's biggest sporting event.

He admitted the organisation was being forced to prepare for a financial hit, with growing expectations that the Olympic payments will be cut or delayed with the Tokyo games pushed back to next year.

"Like many Olympic sports, we are very grateful but also reliant on the share of the IOC broadcast revenues," said Lord Coe. "We work in that four-year business cycle [between summer games] and not having those revenues in the year that we were planning means that we have to be very careful."

The international federations that run Olympic sports collectively received $540m from the last games in Rio de Janeiro in 2016. World Athletics was among the biggest beneficiaries, receiving $40m to $45m from the IOC broadcasting deals. The IOC said it would "assess all the challenges induced by the postponement of the games, including the financial impact for the Olympic movement".

The pandemic has led to other costly measures, such as delaying the World Athletics Championships, due to be held next year in Oregon, until 2022.

Lord Coe said his organisation was creating a hardship fund worth at least $500,000, financed partly through the body's charitable arm, to support athletes who had lost most of their income in recent weeks.

Stars such as Britain's Mo Farah and Kenya's Eliud Kipchoge benefit from big sponsorship deals. But the vast majority of track and field athletes make a living from grant funding and prize money earned in competitions.

"You have a handful at the top doing very well, but everyone else is living hand to mouth," said Tim Crow, a sports marketing adviser. "The Olympics comes along and gives them their moment. Missing it is a huge hit."

There remain doubts as to whether the Olympics will be held next year. Japan's prime minister, Shinzo Abe, said last week it would be "difficult" to hold the event unless "the world has won its battle against the coronavirus pandemic". Tokyo 2020 president Yoshiro Mori said he would prefer to cancel the games than accept a delay to 2022.

"Of course, it would be a real problem if we do not have the games," said Lord Coe, "[But] over-speculating on something that is a year and a half hence is probably not particularly useful."

Lord Coe insisted the future of World Athletics was secure. It does not release financial details, but people close to the organisation said most of its revenues came from long-term commercial contracts unrelated to the Olympics.

These include a global marketing deal with Japanese advertising giant Dentsu, broadcasting contracts with the European Broadcasting Union and ESPN, and a sponsorship agreement with China's Wanda.

The Dentsu deal has been cited in a corruption trial of Lord Coe's predecessor, Lamine Diack, due to begin in Paris next month. Mr Diack has denied any wrongdoing. World Athletics has recently renegotiated the Dentsu contract. *Murad Ahmed*

Aerospace & defence

Airbus plans jellyfish-like smell sensors at airports to find explosives

PATRICK MCGEE

Airbus is planning to install jellyfish-like sensors at airports that mimic bomb-sniffing dogs' ability to detect dangerous chemicals and explosives, using "game-changing" technology built from living biological cells that can "smell" molecular compounds.

In partnership with Koniku, a neurotech start-up in northern California, the European aircraft maker said it would place odour-detection devices in select airport-screening tunnels this year that can smell hazardous materials.

It later might be able to sniff out diseases such as the novel coronavirus.

"The technology has a very quick response time of under 10 seconds in best conditions," Julien Touzeau, head of product security for the Americas at Airbus, said. "With this level of maturity it's an incredible result and hopefully it will improve over time."

Machines that see, hear, touch, move and even think are common, but the ability to understand scent is notoriously difficult. Attempts to build "smell cameras" to capture odours and store them for playback have not come close to the human level.

Nor have efforts to build "electronic noses" to displace dogs had much success. Trained dogs, says Harvard Health, can "almost unerringly" detect prostate cancer in urine samples of patients not even showing symptoms.

Airbus said what makes Koniku's technology unique is that it builds silicon processors augmented with living cells. These purple, jellyfish-like sensors, currently in a prototype stage, aim to mimic processes found in nature.

"The starting point for Koniku is this: biology is technology," said Oshiorenoya Agabi, a Nigeria-born physicist who founded the company in 2015. "We have developed a technology that is able to detect smell — it's breathing the air, and it's essentially telling you what's in the air. What we do is we take biological cells, either Hek cells or astrocytes — brain cells — and we genetically modify them to have olfactory receptors."

Koniku has fewer than 20 employees and has raised only $5.5m, but Airbus expresses great confidence in its potential and says that together they will create "a game-changing, end-to-end, security solution".

A risk is that these devices follow in the trajectory of "puffer machines", widely used at airports after the 2001 September 11 attacks.

These blew compressed air at passengers and then analysed the dislodged particles for traces of explosives. By 2010 it became clear they were both unreliable and costly to maintain.

Airbus's primary goal is to install these sensors on passenger jets, forming a "last line of defence" against security threats, Mr Touzeau said. In light of Covid-19, it is also exploring the sensor's detection capabilities to include "biological hazards".

Koniku builds silicon processors augmented with living cells

Technology

Call to seize economic opportunity from virus

RICHARD MILNE
NORDIC AND BALTIC CORRESPONDENT

Europe's leaders must use coronavirus to make the continent's economy more sustainable and accelerate investments in much-needed technology, according to the heads of two of Sweden's biggest companies.

The chief executives of Volvo Group and Swedbank told the Financial Times that, as policymakers grapple with how to reopen economies across Europe, they need to think about how best to use stimulus packages to achieve the future they want.

Jens Henriksson, chief executive of lender Swedbank, invoked the advice of Rahm Emanuel, former chief of staff to US President Barack Obama, during the 2008 financial crash that "you never let a serious crisis go to waste".

Mr Henriksson said: "Let's try to use it [the present crisis] to take a step forward . . . How can you now use the kick-start of the global economy to make sure it becomes a much more sustainable economy?"

Martin Lundstedt, chief executive of truckmaker Volvo, said in a separate interview: "As we go along, there has to be a move towards stimulus and confidence-building . . . For example, 5G [telecoms networks] — we know it's a no-brainer, that Europe needs it to build a more competitive position. Why don't we accelerate it?"

Authorities across Europe are struggling to plot a return to normal after locking down their economies to combat the Covid-19 pandemic. There is a growing worry among environmentalists and some business leaders that, in the rush to recover from the economic slowdown caused by coronavirus, governments may be prepared to scale back green measures. Sweden is one of the few countries not to have had a strict lockdown, although its more limited restrictions have still hit business hard with Volvo, for instance, closing all its factories worldwide for several weeks.

Mr Lundstedt said the debate must not become about "health and safety versus finance and the economy", as the former must always take precedence.

"We need to continue to keep our eyes on the ball as to what is important. There are some very important challenges in the long term that can serve as a way out," he said, pointing to solutions such as more sustainable transport, renewable energy, and a permanent recycling infrastructure.

Volvo has gradually started reopening its factories and is testing out how the "very complex and in-depth value chains" in the automotive sector respond.

Retail

Japan toilet makers flush as builders caught short

KANA INAGAKI AND LEO LEWIS — TOKYO

The early weeks of the coronavirus outbreak triggered twin bouts of panic buying in Japan — of toilet paper and of the toilets themselves as building wholesalers competed to secure the precious commodity.

The rapid rise in demand for lavatories and an accompanying sudden nationwide shortage of them from mid-March was the result of market participants attempting to "game" the system ahead of rivals as Chinese factories closed and supply chains dried up.

The panic buying was prompted by housebuilders' fears that they would be unable to declare any new property liveable without a secure supply of the vital equipment, said manufacturers.

At its peak, said Kinya Seto, the chief executive of the bathroom and building equipment maker Lixil, some wholesalers were placing orders for 10 times more product than they actually required — a tactic that spurred rivals to respond with even larger orders.

"When people began to realise that there might be a shortage, many of the customers began to order. Where they needed 100 toilets, next time they asked for 400," Mr Seto said in an interview.

"Whether it's toilet paper or masks, it's the same thing. People began to make bigger orders."

March is usually the busiest season for toilet demand in Japan with people moving house ahead of the start of the new financial and school year. About 80 per cent of Japanese households use high-end "smart toilets" with auto-warming seats and bidet sprays, a market that in 2019 generated about $790m in domestic sales, government data say.

But this year, demand spiked as Toto, Japan's biggest toilet-maker with seven plants across China, became the first to flag potential shipment delays in mid-February, prompting some wholesalers to place large orders to secure the remaining inventory.

Global interest in Japan's smart toilets, which have long struggled to catch on in western markets, has also increased in the coronavirus era as people seek higher standards of sanitation.

With the shutdown of its plants, some Toto customers turned to Lixil, which was able to partially offset the disruptions in China with plants in other parts of Asia and existing inventory. Lixil boosted its manufacturing capacity by 10-20 per cent but it too stopped taking new orders in February until late March as production failed to meet demand.

Toto said demand for its toilets had been particularly strong from before the outbreak owing to the launch of a new product

COMPANIES & MARKETS

China reveals nimble steps for helping staff and clients when lockdowns end

Starbucks and Ford are among groups preparing to take local innovations worldwide

FT REPORTERS

As they squeezed cappuccinos through a doorway barricaded with tables and stools last month, staff at a Starbucks in the Chinese city of Wuhan were determined to keep their customers as far away as possible.

The improvisation was one small store's answer to an urgent global problem: how to get the wheels of commerce turning again without unleashing a second wave of the coronavirus pandemic.

Starbucks is just one of dozens of multinationals that have resumed business in China, where the virus began and a version of life after the lockdown is slowly emerging.

As western governments begin to loosen restrictions that have plunged economies into deep freeze, companies say they are drawing on the experience of their Chinese operations in recent weeks for lessons on how to reassure nervous consumers and employees.

Kevin Johnson, the chief executive of Starbucks, told analysts that China offered a "playbook" of new practices, such as taking the temperature of baristas before their shifts, that would be used when its US stores begin to open their doors this week.

Having shut down most of its more than 4,000 Chinese stores in February, Mr Johnson last week sought to reassure Wall Street that its business there "will fully recover over time".

The chance for multinationals to draw up a list of dos and don'ts is not the only reason the world is paying close attention to China's experience. A successful emergence from lockdown will reawaken an economy that helps drive the global one. Ravaged by the virus in January and February, the first quarter saw China suffer its first contraction in gross domestic product since the Cultural Revolution in the 1970s.

> Hilton Hotels has identified 10 'high touch' areas in guest rooms that receive deeper cleaning

As factories and retailers have resumed operations this quarter, companies from Ford to Yum Brands, the owner of the Pizza Hut and KFC fast-food chains, have been able to fine-tune safety procedures that can be exported elsewhere.

Hilton Hotels, for example, said it had identified 10 specific "high touch" areas in guest rooms that would receive even deeper cleaning than the rest, including switches, remote controls, bathroom surfaces and door handles. Rival Accor, Europe's largest hotelier, said guests' temperatures were screened when they entered most of its sites in China and again at the restaurants.

Ford, which was already battling a sales slump in China before the pandemic, has gone further to entice consumers who are likely to be wary of taking unnecessary risks. The US carmaker has developed an app to make it easier to purchase cars online, creating a "zero touch" world with "doorstep delivery of sanitised vehicles". The carmaker is also retooling how it manufactures vehicles to allow for more distance between workers.

"This protocol is being extended to Europe and will also be used when we restart our operations around the world," Jim Farley, Ford's chief operating officer, told analysts last week.

The painstaking effort to eliminate human contact, including new ways of handing over the keys, is transforming the business of buying a car in China, industry executives say.

"The retail trade has very quickly moved to a kind of 'New Normal' in how to deal with the customer," Ola Kallenius, the chief executive of Daimler, warned investors. The company's Mercedes-Benz brand sells more cars in China than anywhere else.

These lessons are proving valuable to companies as they confront the challenge of restarting operations across Europe and in the US, according to Kent Kedl, a Shanghai-based partner at consultancy Control Risks.

"There are executives in China that have now been asked to help lead the global recovery at headquarters," said Mr Kedl. "HQ didn't understand when this started. They weren't asking the right questions. And now they have people who are very good at thinking through these problems."

Although not every practice from China will be applicable elsewhere, one early legacy that is likely to be universal is already clear: the virus has turned more people into online shoppers. Online sales, which make up about 30 per cent of retail spending in China, accelerated in March, according to Morgan Stanley.

"More people in China are using ecommerce than they were before the crisis, including older people," Laxman Narasimhan, chief executive of Reckitt Benckiser, the consumer goods group, told reporters. "We expect that to actually stay because they have learnt a new behaviour now. People are going to shop differently coming out of this crisis and we are getting ready for that."

Businesses with strong ecommerce in China are finding sales easier to come by. A survey by UBS found that almost 40 per cent of respondents in China increased online shopping in early April, higher than during the worst days of the crisis, and three-quarters said they planned to keep up the habit.

Part of the explanation for the stunning rebound in US stocks in April, analysts said, was the hope that China could lead the recovery of a stricken global economy before handing the baton to the likes of the US and Europe. Companies on the benchmark S&P 500 generate about 6 per cent of revenues in China, according to FactSet, second only to the US.

> 'The retail trade has very quickly moved to a kind of "New Normal" in how to deal with the customer'

Yet more than a month after multinationals began opening their factories to workers and shops to consumers, it is not yet clear whether such levels of optimism are justified.

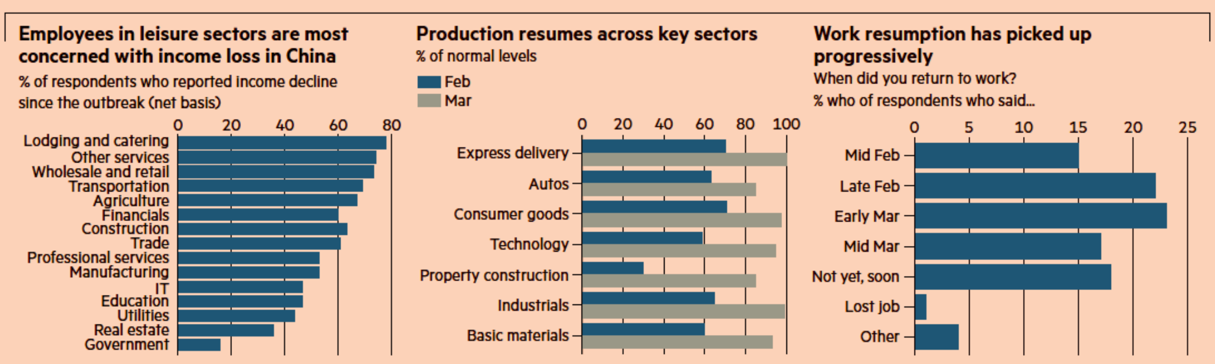
Revenues from Starbucks' Chinese business have, for example, picked up markedly from the peak of the crisis in the middle of February, when they were down 90 per cent. But April's sales remained down 35 per cent from a year ago. Although almost all of its restaurants in China are operating, McDonald's cautioned last week that there is a "reduced level of demand."

The picture from hotels, an industry reliant on people's willingness to travel, was subdued. Although more than 130 of Hilton's 150 hotels have reopened, the group said that current occupancy rate was about 22 per cent, albeit up from 9 per cent in early February.

Gary Rosen, who leads Accor's operations in China, cautioned that although demand was growing "week by week", there was a "long way to go before we returned to pre-Covid levels of activity".

The May Day holiday offered one sign that Chinese consumers were at least beginning to recover some confidence. There were more than 50m tourist trips within the country last Friday and Saturday, according to official figures, including to Beijing's Forbidden City, which was partially reopened.

Reporting by Don Weinland in Beijing, Joe Miller in Frankfurt, Claire Bushey in Chicago and Alice Hancock and Judith Evans in London



People celebrate the May holiday in Wuhan on Friday as 50m tourists took to the road for domestic trips. Below, a guard at Beijing's Forbidden City, which was partially reopened
STR/AFP via Getty Images

Airlines

BOC Aviation taps parent's funds for assault on leasing market

PEGGY HOLLINGER
INTERNATIONAL BUSINESS EDITOR

BOC Aviation, one of the biggest aircraft leasing companies, is tapping parent company Bank of China for funds to help it snare a greater share of the multibillion-dollar industry as even the strongest airlines seek to raise cash by selling off their jets.

Robert Martin, chief executive of the world's fifth-biggest lessor by owned aircraft value, said BOC Aviation had begun to draw down funds from a $2bn "backstop" revolving credit facility, provided by the bank, for the first time since 2011.

Last week the group also concluded a $1bn five-year bond issue, testing the market's appetite for exposure to a sector that is struggling to survive the collapse in global air travel as a result of the coronavirus pandemic. Before the bond issue liquidity stood at $3.6bn.

The Singapore-based company intended to move quickly to acquire aircraft "at good prices with long leases" of 12-16 years, Mr Martin said. He insisted that the new financing was not because the group needed cash to cope with a wave of requests for rental deferrals from the its 90 airline customers.

"We are using the opportunity to focus on the best airlines around the world. Better-credit people who previously would have paid cash are now coming to people like us for funding support," he told the Financial Times. "By the end of April we will have done $5bn of additional sale and leasebacks."

> 'Better-credit people who would have paid cash are now coming to people like us for funding support'

Two weeks ago, BOC Aviation secured United Airlines, one of the world's largest carriers, as a client when it agreed to buy and immediately lease back 22 of the airline's aircraft.

The deal, which involves six 787 twin aisles and 16 737 Max single aisles, is estimated to be worth several billion dollars. In recent weeks, at the height of the pandemic, it also completed sale and leaseback transactions with Cathay Pacific and American Airlines.

BOC Aviation's push comes as the aircraft leasing industry faces a severe squeeze on revenues and the threat of impairments to aircraft values as a result of the crisis. Avolon, the third-biggest lessor by value of owned aircraft, said last month that 80 per cent of its customers were seeking rental holidays.

Carriers such as Ryanair, British Airways and Lufthansa have announced thousands of job losses while Virgin Australia went into administration last month. Norwegian Air Shuttle is planning a rescue debt-for-equity swap.

The crisis marks a sharp reversal on a decade of expansion in the aviation industry, which has fuelled a boom in aircraft financing. According to Ascend by Cirium, the aviation consultancy, more than 100 new operating lessors have entered the sector in the past decade. However, the global nature of the aviation crisis, with more than two-thirds of the world's fleet in storage and several airlines asking for government bailouts, makes placing aircraft with new customers more difficult.

Pharmaceuticals. Biotech

Beijing builds 'champions' of the future with Covid vaccine push

Work of state-sponsored groups and start-ups begins to draw multinationals' interest

HENNY SENDER

The news that Chinese regulators have given the go-ahead for clinical trials of three Covid-19 vaccines developed in the country is the culmination of months of efforts by a combination of start-ups, government-sponsored companies and research institutes.

The three companies are CanSino Biologics, Sinovac Biotech and the Wuhan Institute of Biological Products, the state news agency has said.

Approval for trials, however, is still a long step from a safe and effective vaccine. And although China's pharmaceutical industry has matured, it is still on the whole a lot better at incremental innovation than breakthroughs.

"The number one question is when does China produce best in class or first in class," said Judith Li of Shanghai-based Lilly Asia Ventures, which was spun off from drugmaker Eli Lilly almost 10 years ago and has since invested more than $2.3bn in 90 industry start-ups. "China is still catching up."

Biotech is a strategic priority for the government in its "Made in China 2025" 10-year plan to encourage high-tech industries. Both central and local governments have made vast sums available to promising start-ups.

China is the second-largest pharma market after the US, with $137bn of total spending a year. That is expected to rise substantially as China expands its social safety net and increases the number of drugs that qualify for reimbursement.

At $3.8bn, local demand for vaccines is less than a quarter of the $16bn in the US and a tiny fraction of worldwide use at $43.8bn, but that too is expected to increase dramatically.

Entrepreneurs and their investors say it is also only a matter of time before China becomes a leader at original research. This optimism stems partly from a national will to create homegrown "champions" but also has much to do with the vast amounts of patient data that can be mined and the availability of funding from both the government and private sources.

> 'In 10 years, biotech in China will be comparable to what technology in general is today'

"We still have no Jack Ma [founder of tech group Alibaba] in biotech," said Lefei Sun, who is in charge of the China biotech stakes owned by investment firm General Atlantic. "But in 10 years, biotech in China will be comparable to what technology in general is today."

Ms Li, whose firm has backed Hong Kong-listed CanSino, is confident the company has world-class skills. Working with a military research institute, it has previously developed and won approval for a vaccine to treat Ebola.

China is also finding it easier to attract back citizens who had left to pursue careers overseas. "The US is mature," said Ms Li. "Any contribution you make there is like building a small house in a big city. It is so much more important to build in China."

Wang Xiaodong is a case in point. He was one of the first of his generation to study in the US after the Cultural Revolution and received his PhD in Biochemistry from the University of Texas Southwestern Medical Center. He then taught in the US and joined the National Science Foundation. He was also among the earliest returnees to China.

He is now the director of the National Institute of Biological Sciences in Beijing, a government-funded initiative, is also a co-founder of BeiGene, which is listed on Nasdaq and the Hong Kong Stock Exchange, and is an investor and board member of Clover, a biotech business founded by his protégé, Liang Peng.

Mr Liang did his PhD and postdoctoral studies in the US, taught at Vanderbilt, and returned to China after his mentor to establish Clover, which is also in the race to develop a vaccine.

Both men are part of the rapidly evolving biotech ecosystem in China. Indeed most start-up founders in the industry studied and worked in the US.

Progress can be measured by the fact that the likes of CanSino and Clover are being taken seriously by multinationals. Clover recently completed a $43m capital raising and has a partnership with GSK, which supplies it with ingredients to make the vaccine it is developing. It also has a research partnership with Nasdaq-listed Dynavax Technologies, another company that is developing Covid-19 vaccines.

From outside China in particular, there are questions, however, about certain parts of the industry, and critics say results are not always what they seem.

"The fake data is almost systemic," said Lu Shan, a professor at the University of Massachusetts. "There is so much focus on quick financial returns. When scientists become interested in the financial incentives, they become businessmen and have less impact. They move too quickly."

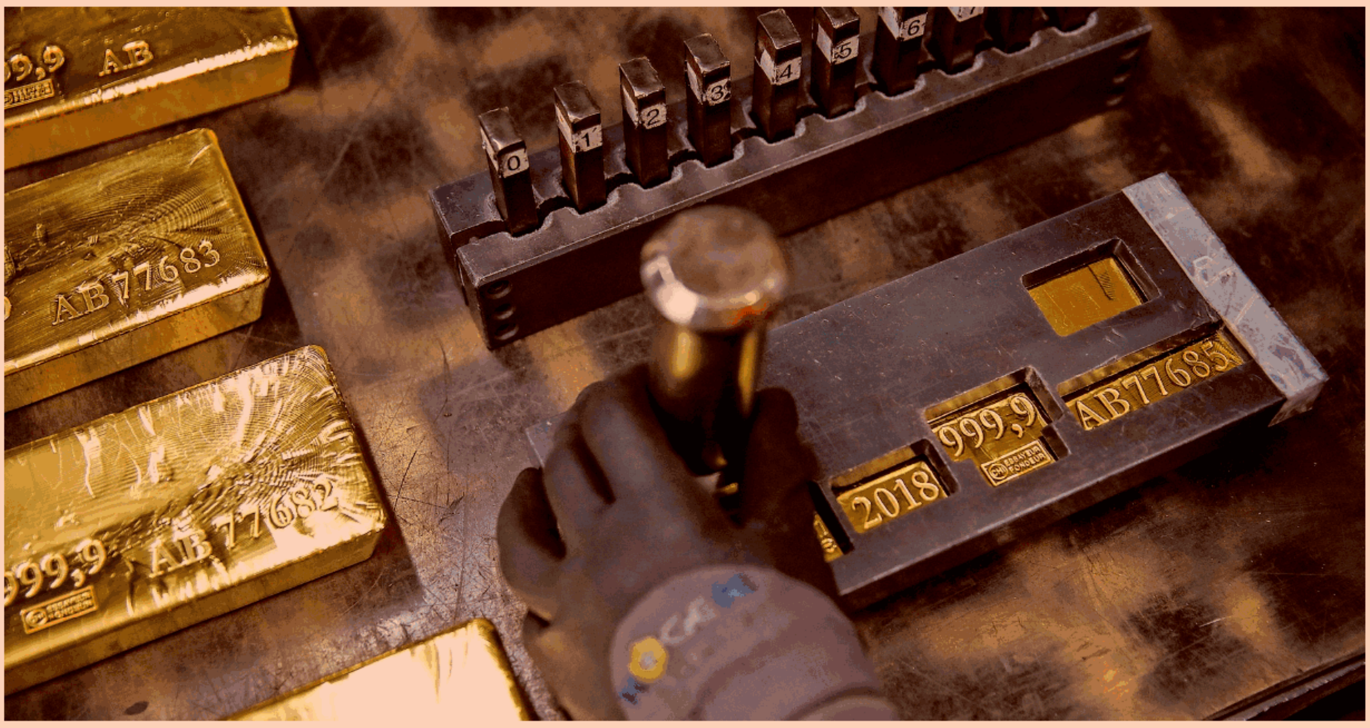
In part, this is the nature of the game. Biotech is a high-reward calling that also involves high risks. Speed is essential — there is a much smaller pay-off for the product that reaches market in second place. That is especially the case with developing vaccines for viruses.

For now though, the biggest challenge for Chinese researchers is to combine their skills with the strengths of the west to try to find a way out of the pandemic. "Science is global," Mr Sun says. "It shouldn't be about nations."

COMPANIES & MARKETS

Commodities. Investment hedge

Funds bet on gold as haven from 'unfettered' currency printing



Hedge funds have profited from 'exchange for physical' contracts, which allow for a switch into gold bars
Stefan Wermuth/Bloomberg

Big-name investors such as Elliott and Caxton act on fears over debasement of money

LAURENCE FLETCHER AND HENRY SANDERSON

Some of the world's largest hedge funds are raising their bets on gold, predicting that central banks' unprecedented responses to the coronavirus crisis will lead to devaluations of major currencies.

Paul Singer's Elliott Management, Andrew Law's Caxton Associates and Danny Yong's Dymon Asia Capital are all bullish on the yellow metal, which has risen about 12 per cent this year.

They are wagering that moves to loosen monetary policy and even directly finance government spending — intended to limit the economic damage from the virus — will debase fiat currencies and provide a further boost to gold.

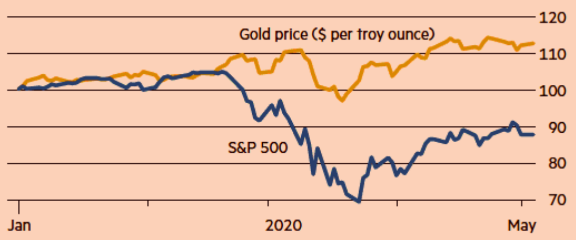
"Gold is a hedge against unfettered fiat currency printing," said Mr Yong, founding partner at Dymon Asia, which is up 36 per cent this year, helped by its bet on the gold price.

New York-based Elliott, which manages around $40bn in assets, told its investors last month that gold is "one of the most undervalued" assets available and that its fair value was "multiples of its current price".

In a letter, Elliott cited the "fanatical debasement of money by all of the world's central banks" as well as low interest rates and disruption to mining caused by coronavirus.

Profits from gold positions helped the hedge fund to a gain of about 2 per cent in the first quarter.

Hedge funds look to gold as it rebounds to eight-year high
Rebased



Source: Refinitiv

London-based Caxton, one of the world's oldest macro hedge funds, has also profited from gold bets held through futures and so-called "exchange for physical" contracts, which allow for a switch into bars.

Its Global fund is up 15 per cent so far this year while its Macro fund has gained nearly 17 per cent, according to an investor.

Gold has long been seen as a hedge against inflation and a haven in times of stress.

But it surprised many analysts in the coronavirus sell-off by falling alongside equity markets as investors opted for the safety of cash.

Gold dropped from nearly $1,680 on March 9 to just above $1,450 on March 16, shortly before the S&P 500 hit a more than three-year low.

However, it has since rebounded to an eight-year high of $1,747 a troy ounce on April 14 and was trading around $1,700 yesterday.

The price has been supported by a sevenfold rise in purchases of gold-backed exchange traded funds in the first quarter, according to the World Gold Council. This took ETFs' total stash to a record 3,185 tonnes in March.

Gold was a stellar investment for some hedge funds after the financial crisis. John Paulson's Paulson & Co, known for its bets against subprime debt before the financial crisis, made billions as the metal rocketed towards an all-time high above $1,900 in 2011.

However, gold has also often been frustrating to trade. The prediction that drove the post-crisis rally — that quantitative easing would lead to high inflation — did not play out and gold tumbled to below $1,100 by late 2015. Bears can also point to the two-decade slump that followed a high in 1980.

Funds are again betting that stimulus will weaken currencies, even if this does not show up in higher consumer price inflation.

Adrian Orr, governor of the Reserve Bank of New Zealand, said last month that he was "open-minded" about buying debt directly from the government, a prospect that Mr Yong described as "appalling".

'I suspect we will see central banks doubt each other and demand gold as payment'

The Bank of England has already agreed temporarily to finance the Treasury's extra spending needs.

"I suspect we will begin to see central banks begin to doubt each other's creditworthiness and demand gold as payment instead of dollars or yen or euro or any other paper currency," wrote Jerry Haworth, chief executive of hedge fund 36 South Capital Advisors, in a letter to clients.

He calls gold "the credit default swap of central banks".

Others see opportunities in gold-related stocks. David Neuhauser, managing director of Northbrook, Illinois-based Livermore Partners, told the Financial Times that he has increased exposure to gold miners this year, in anticipation of inflation or stagflation (when price rises are accompanied by slow economic growth). "Either way, it will be good for the metals."

Not everyone is convinced. Some market-watchers point to weak retail demand for gold in India and China, while central banks such as Russia have halted purchases this year.

That could leave gold exposed if concerns over the global economy were to ease, said analyst Helen Lau at Argonaut Research.

London-based Fulcrum Asset Management has profited from gold this year but has since sold most of its exposure. Chief investment officer Suhail Shaikh said the main driver of the gold price was a drop in inflation-adjusted bond yields, which have little room to fall further, he said.

"When things accelerate sharply in one direction, typically that's driven by people feeling they've missed out and just piling in regardless," he said.

Additional reporting by Ortenca Aliaj

Fixed Income

Argentina creditors snub 'haircut' on $65bn debt

COLBY SMITH — NEW YORK

Argentina's biggest bondholders intensified their opposition to a government plan to restructure its $65bn foreign debt mountain — all but confirming the failure of the deal that expires on Friday.

Three groups representing some of the country's largest private creditors issued a joint statement yesterday confirming they would not support the proposal from Buenos Aires, which calls for interest payments to be delayed until 2023 and principal payments until 2026.

Tension has increased between Argentina and its creditors since the proposal was announced last month.

The three groups, which represent some of the world's largest institutional investors including BlackRock and Fidelity, had already rejected the offer independently with some calling it "unacceptable" and not a product of "good faith" negotiations.

"Each of the three bondholder groups and the institutions they represent, together with various other investors, wish to reiterate and make clear that they cannot support Argentina's recently launched exchange offer, and will not tender their bonds in such offer, because, among other reasons, they consider the terms to require Argentine bondholders to bear disproportionate losses that are neither justified nor necessary," the creditors said in a statement.

'Requiring bondholders to bear disproportionate losses is neither justified nor necessary'

The government, which has given investors until Friday to accept the terms, has requested a 62 per cent "haircut" on interest payments worth almost $38bn, as well as a 5.4 per cent reduction in the face value of the debt, worth about $3.6bn.

BlackRock, Fidelity, T Rowe Price and Ashmore are among the members of the largest group while Greylock Capital Management and GMO have joined forces with other firms in a separate committee.

A third group, which represents holders of previously restructured bonds issued in 2005 and 2010, or so-called exchange bonds, counts hedge funds VR Capital Group, Monarch Alternative Capital and HBK Capital Management among its members.

Several members of the various groups last week rejected meetings with economy minister Martín Guzmán and his team, according to people familiar with the matter, arguing that there was little to discuss as long as the government insisted it could not adjust the terms at all.

"We understand everything we need to understand about this deal to know it's not going to work," said one creditor.

Writing in the Financial Times, Mr Guzmán said that solving the debt crisis required "common sense, collaboration and fresh ideas in the interest of both international creditors and Argentina".

Commodities

Battered oil industry has 'turned a corner', says energy trader Mercuria

NEIL HUME AND DAVID SHEPPARD

The co-founder of Mercuria believes the oil market has "turned the corner" after one of the worst months in its history.

Marco Dunand, who has helped build Mercuria into one of the world's biggest independent energy traders, said the crash in US crude prices into negative territory in April served as a wake-up call for the industry, which had responded by "aggressively" cutting output.

"There is a certain inertia to closing fields and wells . . . because there is a cost to close and reopen," Mr Dunand told the Financial Times. "But I think the scare of Monday [April 20] made some people realise they were better off leaving oil in the ground."

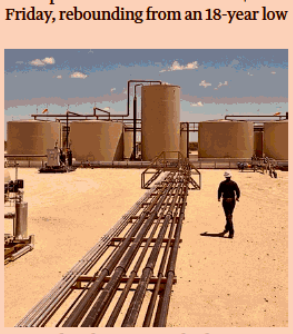
That crash saw US benchmark oil delivery prices briefly drop to minus $40 a barrel as traders struggled to find storage space for a growing glut of crude.

At the same time, oil demand was down by as much as a third worldwide because of travel restrictions and other measures designed to slow the spread of coronavirus.

Since then, production cuts have increased while some big economies are easing lockdowns. However, the threat of the virus still hangs over the oil market where prices have plummeted 70 per cent since January.

"I think we have turned the corner," Mr Dunand said. "But if we have a second wave of pandemic, then all bets are off."

Oil prices have started to edge higher in the past week. Brent crude hit $27 on Friday, rebounding from an 18-year low of below $20 a barrel the previous week.



US crude oil prices crashed into negative territory last month

Planned production cuts of up to 10 per cent of global supply by Opec members and their allies took effect on Friday. Other countries such as Norway have announced their own curbs.

Analysts and traders also reckon around 3m barrels a day of North American output is being curtailed because of low prices and limited pipeline capacity.

ExxonMobil and Chevron each announced shut-ins of up to 400,000 barrels per day on Friday, much of it from their US shale businesses.

Mr Dunand, who has run the company from his house in the Swiss mountains during the crisis, said the oil market could be balanced as soon as June, although it would take longer to digest the inventories built up in March and April as oil demand plunged.

"Now think about June," he said. "There are the Opec cuts — and who knows how much discipline there will be. Add that to North American and bits and bobs like Norway and there could be a reasonably solid 15m b/d cut. The question is what is demand for June? But putting all that together we should have a balanced market."

Equities

Rush of stock deals by Australian groups in biggest fundraising month since 2009

RICHARD HENDERSON — MELBOURNE
JAMIE SMYTH — SYDNEY

Australian companies rushed to the stock market in April, raising more money than any point in the last decade to fortify their balance sheets and take advantage of relaxed rules that critics argue have favoured large investors at the expense of retail shareholders.

Companies raised $8.9bn in April, the biggest monthly total since the crisis period of 2009 and a sum that rivals the $11.1bn raised in the US — a market 28 times the size of Australia's.

The data, from Bloomberg, include deals greater than $20m and excludes the handful of small initial public offerings in the US.

The burst of activity reflects the push for companies around the world to raise money to get through the downturn caused by the pandemic, which threatens to push millions of Australians out of work and end the country's three-decade run without a recession.

The 36 deals in April spanned all sectors and were led by a A$3.5bn raising (US$2.25bn) by National Australia Bank, one of the big four banks that dominate the local market.

Businesses initially tapped the stock market as a defensive move but more recently have moved to build war chests to hunt attractive assets.

"The first batch of capital raisings were genuine balance sheet exercises but increasingly companies are looking to raise funds for growth purposes and to participate in distressed sales," said John McLean, head of capital markets origination for Australia and New Zealand at Citi.

'Retail shareholders have been diluted because of preference being given to institutional shareholders'

The issuance has delivered A$305m in fee revenue to investment banks such as Macquarie Bank, JPMorgan and Citi since the end of March, according to data from 33 deals tracked by Ownership Partners, a proxy adviser.

Under rules introduced on March 31 by the Australian Stock Exchange and the country's securities regulator, companies can raise up to 25 per cent of their share base in discounted placements to big investors, an increase from 15 per cent. The measures will expire in July.

The arrangements let companies raise vast sums quickly and give large investors — such as the nation's super funds that steward trillions of dollars in pension assets — access to cheap stock.

Webjet, a travel group hit hard by the shutdowns, raised A$231m in an April placement at a 55 per cent discount to its closing share price.

The stock has since fallen but remains two-thirds above the price of the placement, delivering a bumper profit to large investors involved in the deal. NAB's placement was priced 8.5 per cent below its closing stock price.

The rule change has sparked a backlash from some shareholder advocates. New placements can dilute the holdings of retail investors who have no say in whether they go ahead.

"Retail shareholders have been systematically diluted because of preference being given to institutional shareholders," said shareholder activist Stephen Mayne.

The day in the markets

What you need to know

- **Re-emergence of US-China trade tension knocks market sentiment**
- **Dollar and gold climb as investors seek safety in havens**
- **Wall Street follows Buffett in dumping airlines stocks**

The ramping up in trade tension between Washington and Beijing spilled over into stock markets with all leading bourses lower yesterday.

The FTSE All-World index fell for the third consecutive session after Mike Pompeo, US secretary of state, repeated US government claims over the weekend linking the virus outbreak to a Wuhan laboratory. China denied the allegations.

Mr Pompeo added that China was refusing to co-operate with overseas scientists trying to develop a vaccine.

"The risk of a cold war between the two nations seems to be building," said Jim Reid, macro strategist at Deutsche Bank, and, "given it's a US election year, this issue isn't likely to go away".

Both the Cboe Vix, a gauge of implied volatility in the S&P 500, and its European peer, the VStoxx index, jumped higher.

"The safe haven currencies of the US dollar [also outperformed]," said Lee Hardman, currency analyst at MUFG Bank, "driven by a further deterioration in investor risk sentiment."

The Dollar index, a gauge of the greenback against a basket of peers, rose for the first time in more than a week, climbing 0.5 per cent to 99.56. Gold, another haven asset, rose as much as 0.7 per cent to stay near a seven-year high.

But "the global economy is in no fit state to absorb another negative shock as it struggles to absorb the twin negative shocks from Covid-19 and the collapse in the price of oil," added Mr Hardman.

During the past fortnight, global benchmark Brent crude has fallen to a two-decade low while WTI, the US marker, traded in negative territory over fears linked to a potential oil glut.

Brent crude rose 1.7 per cent to $26.89 a barrel yesterday while WTI increased 2 per cent to $20.22 a barrel.

European stocks fell despite many countries on the continent taking tentative steps to ease the restrictions.

The Stoxx Europe 600 retreated 2.7 per cent while Frankfurt's Xetra Dax sank 3.6 per cent and the CAC 40 in Paris was 4.2 per cent weaker.

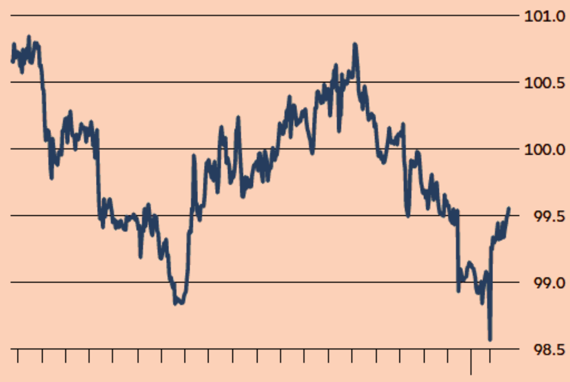
Across the Atlantic, the S&P 500 was down 0.5 per cent by midday in New York trading, with airlines the worst performers.

The sell-off in carriers follows Warren Buffett's admission over the weekend that he had dumped investments in airlines during the coronavirus pandemic.

Tumbling airline shares dragged the Dow Jones Transport index down almost 3 per cent. **Ray Douglas**

US currency strengthens as Washington takes aim at Beijing

Dollar index



Source: Refinitiv

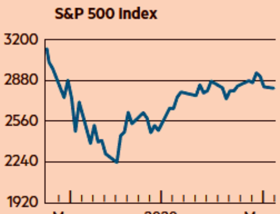
Markets update

	US	Eurozone	Japan	UK	China	Brazil
Stocks	**S&P 500**	**Eurofirst 300**	**Nikkei 225**	**FTSE100**	**Shanghai Comp**	**Bovespa**
Level	2819.95	1284.39	19619.35	5753.78	2860.08	77978.31
% change on day	-0.38	-2.56	-2.84	-0.16	1.33	-3.14
Currency	**$ index (DXY)**	**$ per €**	**Yen per $**	**$ per £**	**Rmb per $**	**Real per $**
Level	99.331	1.092	106.925	1.242	7.052	5.590
% change on day	0.254	-0.817	0.019	-0.957	0.000	1.939
Govt. bonds	**10-year Treasury**	**10-year Bund**	**10-year JGB**	**10-year Gilt**	**10-year bond**	**10-year bond**
Yield	0.627	-0.566	-0.028	0.229	2.510	7.487
Basis point change on day	1.080	2.600	0.000	-1.800	0.000	13.800
World index, Commods	**FTSE All-World**	**Oil - Brent**	**Oil - WTI**	**Gold**	**Silver**	**Metals (LMEX)**
Level	312.03	26.84	20.11	1686.25	14.85	2361.70
% change on day	-1.11	1.17	1.93	-0.97	-3.20	-1.30

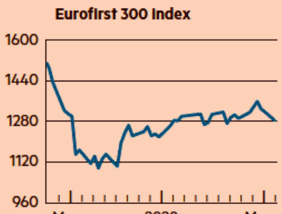
Yesterday's close apart from: Currencies = 16:00 GMT; S&P, Bovespa, All World, Oil = 17:00 GMT; Gold, Silver = London pm fix. Bond data supplied by Tullett Prebon.

Main equity markets

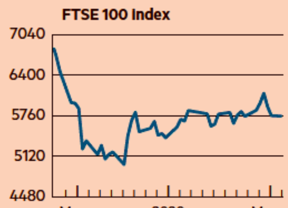
S&P 500 index



Eurofirst 300 index



FTSE 100 index



Biggest movers

%	US		Eurozone		UK	
Ups	Phillips 66	5.72	Man	5.77	Hikma Pharmaceuticals	5.86
	Valero Energy	4.19	Telefonica	2.85	Ocado	4.49
	Servicenow	3.99	Sanofi	2.77	Glaxosmithkline	3.21
	Advanced Micro Devices	3.67	Iliad	1.84	Royal Dutch Shell	2.74
	Clorox	3.51	Colruyt	0.66	Smith & Nephew	2.56
Downs	American Airlines	-10.10	Thyssenkrupp	-14.31	Informa	-7.51
	United Airlines Holdings	-8.87	Klepierre	-8.97	Easyjet	-7.22
	Delta Air Lines	-8.75	Ses	-8.76	Rolls-royce Holdings	-6.93
	Tyson Foods	-8.04	Ab Inbev	-8.15	Int Consolidated Airlines S.a.	-5.16
	Southwest Airlines Co	-7.27	Repsol	-7.79	Flutter Entertainment	-4.97

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

Airlines led the US fallers after stake sales by Warren Buffett added to fears that a 2021 demand recovery is too optimistic.

Berkshire Hathaway had sold its investments last month in Delta Air Lines, American Airlines, Southwest Airlines and United Airlines, Mr Buffett said at his investment group's annual meeting.

American Airlines was the worst performer after Barclays downgraded to "underweight".

Apart from not knowing when revenue will return for an industry collectively burning an estimated $20bn of cash this quarter, the airlines' sizeable debt balances and structural cost burdens had left equity holders with little room for error, Barclays said.

Tyson Foods slipped after accompanying weaker than expected second-quarter earnings with an unexpectedly gloomy outlook.

The abattoir operator withdrew margin guidance, saying the demand shift to retail had not been strong enough to offset declines in its food service business.

PG&E, the bankrupt California utility, rose on a UBS upgrade to "buy".

Landlord Front Yard Residential slid after its takeover by privately owned peer Amherst Residential collapsed.

Amherst had agreed to buy Front Yard in February in a deal worth $2.3bn including debt. *Bryce Elder*

Eurozone

Thyssenkrupp led the Stoxx Europe 600 fallers on worries that the deal to sell its elevators division to Advent and Cinven for €17.2bn might stall.

The private equity groups want to pull in other investors to reduce their own exposure to the deal, which is scheduled to close in July, the FT reported.

Kepler Cheuvreux called the response an overreaction, saying there was nothing in the report to suggest that the deal was at risk of collapsing.

Ryanair was weakest among the travel stocks after saying on Friday that it was cutting up to 3,000 jobs as well as imposing unpaid leave and pay cuts.

The airline, which has argued that state support to its rivals is illegal, said it expected to lose more than €100m in its fiscal first quarter ending in June and predicted that traffic would take at least two years to return to 2019 levels.

Société Générale forecast that Ryanair would deliver a net loss before one-offs of €298m in its current fiscal year.

Lonza, the Swiss chemicals and biotechnology group, gained after announcing a 10-year tie-up with US vaccine developer Moderna.

The agreement, beginning in June, would boost manufacturing capacity for Modena's novel coronavirus vaccine candidate, which was the first to enter clinical trials. *Bryce Elder*

London

Takeover talk lifted **Royal Mail** after corporate raiders Daniel Kretinsky and Patrik Tkac declared a 5.35 per cent stake, up from 3.05 per cent revealed in March.

The pair last year failed to take German retailer Metro private using a near 30 per cent stake.

The stock was also helped by news that Royal Mail had reached an agreement with its main union to avert industrial action over the temporary suspension of Saturday letter deliveries.

Hikma was the best performer among pharmaceuticals stocks.

US prescription data indicated strong demand for Hikma's injectable analgesics, sedatives and muscle relaxants, which are used when Covid-19 patients are put on ventilators, said Barclays.

Conference organisers **Informa** and **Hyve** slid as leaks of the UK's first-stage plan to reopen workplaces offered nothing for the events industry.

Airports-exposed stocks such as **SSP**, the travel café operator, and **WHSmith** were also under pressure.

Rentokil climbed after Morgan Stanley turned positive, arguing that investors understand the pest control group's growth in the US but are yet to recognise the opportunity in emerging markets.

"Climate-induced food security and heightened hygiene spend should see an earnings surprise," it added. *Bryce Elder*

ECB can ease Italian debt fears without risking inflation

Carlo Cottarelli
Markets Insight

The projected surge in public deficits caused by the coronavirus pandemic has rekindled concerns about the sustainability of euro-area government debt. Such concerns are kept at bay for now by the European Central Bank's vast purchases of government paper through its "quantitative easing" operations.

Indeed, as long as public debt stays idle in the ECB portfolio, rollover risks are correspondingly reduced. But what if inflation were to climb?

Constrained by its mandate to keep price rises below 2 per cent, the ECB would have to tighten monetary policy.

Some fear it would look to do that by selling the government paper it is currently buying, a sort of "quantitative tightening". The full weight of public debt would then become apparent.

But while it is certainly a possible scenario, the need for QT is far from obvious, even if inflation did eventually rise.

Before explaining why, let us first look at what has happened to the composition of public debt as a result of previous rounds of QE and what is likely to happen this year. Take Italy as an example.

While its total public debt-to-GDP ratio had hovered at some 135 per cent since 2014, its public debt held outside the ECB fell rapidly from 129 per cent to 112 per cent of GDP in 2018 as the central bank's purchases of Italian securities exceeded its cumulative deficit.

This year, on current policies, the ECB is likely to raise its holdings of Italian government paper by €170bn, more than 10 per cent of GDP.

That would fully finance Rome's deficit, which is projected at 8.3 per cent of GDP by the IMF and at 10.4 per cent by the government. Consequently, the stock of Italian public debt held outside the ECB may not even rise in euro terms.

As a ratio of a falling GDP, it would rise but, at about 120 per cent, would remain well below its 2014 level.

This will cut rollover risks compared with a scenario without QE. That is perhaps the key reason why S&P Global, the credit rating agency, recently confirmed Italy's investment grade rating.

But its rival, Fitch, felt that the rise in total public debt required a downgrade. After all, one could argue, it is the outlook for inflation that will determine whether the ECB keeps rolling over the securities purchased through QE. Economic history tells us that when central banks print a lot of money, especially to finance governments, inflation rises.

> Economic history tells us that when central banks print a lot of money, inflation rises

But the money printed by the ECB since 2014 has not caused much inflation. That is because commercial banks have used little of the money printed by the ECB to support lending.

The traditional "money multiplier" theory is one in which the money printed by central banks is used to back loans by commercial banks, then redeposited and used for loans again, until the ratio between bank liquidity — the deposits held by commercial banks at the central bank — and bank loans has returned to normal.

But this has not happened. The ratio between the eurozone's commercial banks' liquidity and their loans rose from 3.5 per cent in 2014 to 16.5 per cent in 2018. What may have contributed to this is a tightening of bank capital requirements since the 2008 financial crisis.

Ultimately, what constrained bank lending was not the lack of liquidity but the lack of equity. The coupling of an expansionary monetary policy with tighter equity regulations has, therefore, facilitated the financing of governments by printing money without having to pay the price in inflation.

What does this imply for the future? If inflation — which is still very low — eventually goes up, the ECB would have at least three options to tighten monetary policy, all with different impacts on public debt sustainability.

The first is to mop up excess liquidity by selling government paper in the market. The second is to tighten equity regulations, as done during 2015-18. The third is to toughen rules around bank liquidity, perhaps by raising reserve requirements.

All these tools imply a tighter monetary policy stance but only the first would be particularly damaging for public debt sustainability as the sale of government paper, or QT, could push up yields. The second and third options are not without costs for the economy, like most forms of bank regulation. But in the short run, they would be less damaging to debt sustainability.

The current surge in public debt is risky. But its de facto monetary financing by the ECB is cutting immediate rollover risks and giving governments time for a gradual reduction in debt ratios.

That was the goal before the virus crisis and it will be the goal after it too.

Carlo Cottarelli is a director at UCSC and visiting professor at Bocconi University in Milan

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

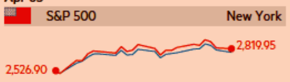
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.38%	0.54%	-0.91%	-0.16%	-2.56%	-2.84%	-4.18%	-1.11%	-0.817%	-0.957%	0.019%	0.114%	-0.56%	-0.97%

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

AMERICAS

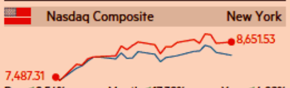
Apr 05 - - Index / All World

S&P 500 New York



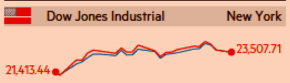
Day -0.38% Month 13.37% Year -4.22%

Nasdaq Composite New York



Day 0.54% Month 17.39% Year 6.02%

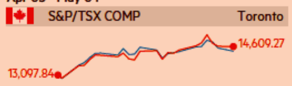
Dow Jones Industrial New York



Day -0.91% Month 11.75% Year -11.23%

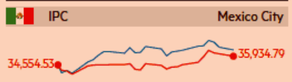
Apr 05 - May 04 Index / All World

S&P/TSX COMP Toronto



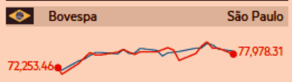
Day -0.08% Month 12.89% Year -11.45%

IPC Mexico City



Day -1.47% Month 8.64% Year -18.84%

Bovespa São Paulo

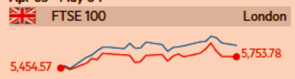


Day -3.14% Month 12.09% Year -18.82%

EUROPE

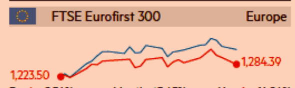
Apr 05 - May 04 Index / All World

FTSE 100 London



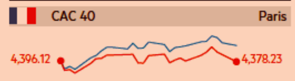
Day -0.16% Month 6.23% Year -22.06%

FTSE Eurofirst 300 Europe



Day -2.56% Month 5.45% Year -16.24%

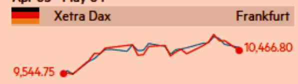
CAC 40 Paris



Day -4.24% Month 5.38% Year -21.10%

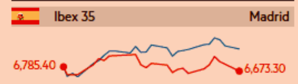
Apr 05 - May 04 Index / All World

Xetra Dax Frankfurt



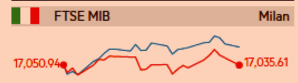
Day -3.64% Month -1.81% Year NaN%

Ibex 35 Madrid



Day -3.60% Month -13.43% Year -29.08%

FTSE MIB Milan

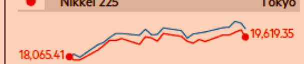


Day -3.70% Month 4.38% Year -21.42%

ASIA

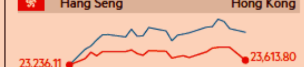
Apr 05 - May 01 Index / All World

Nikkei 225 Tokyo



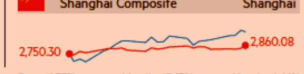
Day -2.84% Month 2.80% Year -11.86%

Hang Seng Hong Kong



Day -4.18% Month 1.60% Year -21.52%

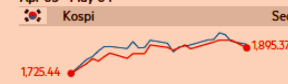
Shanghai Composite Shanghai



Day 1.33% Month 3.17% Year -6.61%

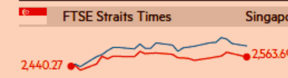
Apr 05 - May 04 Index / All World

Kospi Seoul



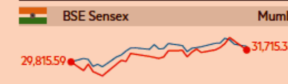
Day -2.68% Month 9.85% Year -13.70%

FTSE Straits Times Singapore



Day -2.31% Month 7.28% Year -24.44%

BSE Sensex Mumbai



Day -5.94% Month 14.95% Year -18.60%

Country	Index	Latest	Previous
Argentina	Merval	31467.81	32742.84
Australia	All Ordinaries	5389.50	5325.00
	S&P/ASX 200	5319.80	5245.90
	S&P/ASX 200 Res	3771.00	3749.00
Austria	ATX	2144.96	2227.15
Belgium	BEL 20	2952.22	3099.12
	BEL Mid	7424.72	7623.82
Brazil	IBovespa	77978.31	80505.89
Canada	S&P/TSX 60	884.12	882.65
	S&P/TSX Comp	14609.27	14620.34
	S&P/TSX Div Met & Min	353.16	360.21
Chile	S&P/CLX IGPA Gen	19450.93	18497.72
China	FTSE A200	10357.26	10245.63
	FTSE B35	9000.71	8988.96
	Shanghai A	2997.56	2958.15
	Shanghai B	215.28	210.99
	Shanghai Comp	2860.08	2822.44
	Shenzhen A	1845.19	1811.03
	Shenzhen B	833.27	823.73
Colombia	COLCAP	1142.04	1145.89
Croatia	CROBEX	2013.05	2011.29
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	862.95	873.17
Denmark	OMXC Copenahgen 20	1144.41	1155.80
Egypt	EGX 30	10199.85	10554.04
Estonia	OMX Tallinn	1115.94	1126.14
Finland	OMX Helsinki General	8346.87	8655.73
France	CAC 40	4378.23	4572.18
	SBF 120	3459.11	3610.56
Germany	M-DAX	22431.37	23043.70
	TecDAX	2794.65	2854.65
	XETRA Dax	10466.80	10861.64
Greece	Athens Gen	602.36	628.25
	FTSE/ASE 20	1464.70	1525.21
Hong Kong	Hang Seng	23613.80	24643.59
	HS China Enterprise	9599.02	10040.87
	HSCC Red Chip	3706.12	3863.82
Hungary	Bux	34576.84	35180.90
India	BSE Sensex	31715.35	33717.62
	Nifty 500	7596.90	8012.90
Indonesia	Jakarta Comp	4605.49	4716.40
Ireland	ISEQ Overall	5386.49	5603.00
Israel	Tel Aviv 125	1407.20	1392.31
Italy	FTSE Italia All-Share	18676.70	19345.75
	FTSE Italia Mid Cap	31000.41	31593.57
	FTSE MIB	17035.61	17690.49
Japan	2nd Section	5813.69	5674.98
	Nikkei 225	19619.35	20193.69
	S&P Topix 150	1183.84	1212.56
	Topix	1431.26	1464.03
Jordan	Amman SE	1668.18	1675.47
Kenya	NSE 20	1953.07	1957.19
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1006.60	1006.98
Lithuania	OMX Vilnius	695.05	694.84
Luxembourg	LuxX	935.09	975.71
Malaysia	FTSE Bursa KLCI	1376.59	1407.78
Mexico	IPC	35934.79	36470.11
Morocco	MASI	9400.70	9300.42
Netherlands	AEX	496.31	512.91
	AEX All Share	704.87	729.53
New Zealand	NZX 50	10475.98	10449.01
Nigeria	SE All Share	23021.01	22766.59
Norway	Oslo All Share	820.68	848.52
Pakistan	KSE 100	33916.64	34111.64
Philippines	Manila Comp	5572.09	5700.71
Poland	Wig	45004.06	46117.00
Portugal	PSI 20	4186.60	4284.18
	PSI General	2904.58	2961.82
Romania	BET Index	7932.41	7978.64
Russia	Micex Index	2629.73	2650.56
	RTX	1100.79	1125.03
Saudi-Arabia	TADAWUL All Share Index	6585.58	7112.90
Singapore	FTSE Straits Times	2563.69	2624.23
Slovakia	SAX	327.26	327.26
Slovenia	SBI TOP	873.85	-
South Africa	FTSE/JSE All Share	49186.59	50336.72
	FTSE/JSE Res 20	43685.65	44731.30
	FTSE/JSE Top 40	45254.03	46348.26
South Korea	Kospi	1895.37	1947.56
	Kospi 200	250.60	258.15
Spain	IBEX 35	6673.30	6922.30
Sri Lanka	CSE All Share	4571.63	4874.73
Sweden	OMX Stockholm 30	1505.21	1577.92
	OMX Stockholm AS	574.80	601.86
Switzerland	SMI Index	9390.27	9629.40
Taiwan	Weighted Pr	10720.48	10992.14
Thailand	Bangkok SET	1301.66	1282.68
Turkey	BIST 100	98842.24	101110.11
UAE	Abu Dhabi General Index	4105.68	4230.37
UK	FT 30	2145.80	2169.90
	FTSE 100	5753.78	5763.06
	FTSE 4Good UK	5306.84	5321.44
	FTSE All Share	3176.59	3189.41
	FTSE techMARK 100	4685.81	4912.65
USA	DJ Composite	7560.25	7658.99
	DJ Industrial	23507.71	23723.69
	DJ Transport	7881.17	8144.86
	DJ Utilities	758.42	759.08
	Nasdaq 100	8778.89	8718.18
	Nasdaq Cmp	8651.53	8604.95
	NYSE Comp	10954.85	11058.57
	S&P 500	2819.95	2830.71
	Wilshire 5000	28403.43	28500.61
Venezuela	IBC	289324.75	284439.19
Vietnam	VNI	762.47	769.11
Cross-Border	DJ Global Titans ($)	334.77	336.06
	Euro Stoxx 50 (Eur)	2812.45	2927.93
	Euronext 100 ID	863.56	889.87
	FTSE 4Good Global ($)	7048.97	7098.94
	FTSE All World ($)	312.03	315.54
	FTSE E300	1284.39	1318.02
	FTSE Eurotop 100	2479.15	2538.92
	FTSE Global 100 ($)	1837.90	1845.75
	FTSE Gold Min ($)	2250.34	2236.35
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	1977.50	2024.93
	FTSE World ($)	555.29	560.55
	FTSEurofirst 100 (Eur)	3323.22	3411.51
	FTSEurofirst 80 (Eur)	3847.90	4003.92
	MSCI ACWI Fr ($)	478.56	489.17
	MSCI All World ($)	2004.79	2052.85
	MSCI Europe (Eur)	1369.12	1377.64
	MSCI Pacific ($)	2333.85	2400.81
	S&P Euro (Eur)	1291.26	1342.52
	S&P Europe 350 (Eur)	1317.54	1350.80
	S&P Global 1200 ($)	2207.03	2229.22
	Stoxx 50 (Eur)	2767.52	2831.15

(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
Amazon.com	61.6	2316.42	30.38
Apple	45.5	291.51	2.44
Microsoft	22.8	177.72	3.15
Boeing	22.1	126.93	-6.44
Facebook	17.1	203.73	1.46
Netflix	16.4	427.71	12.44
Advanced Micro Devices	15.7	51.71	1.83
Delta Air Lines	13.1	22.01	-2.11
Nvidia	11.0	290.00	7.22
Walt Disney (the)	9.9	101.67	-3.83

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Phillips 66	70.16	3.80	5.72
Valero Energy	61.22	2.46	4.19
Servicenow	353.05	13.54	3.99
Advanced Micro Devices	51.71	1.83	3.67
Clorox	199.47	6.76	3.51
Downs			
American Airlines	9.57	-1.08	-10.10
United Airlines Holdings	24.26	-2.36	-8.87
Delta Air Lines	22.01	-2.11	-8.75
Tyson Foods	55.19	-4.82	-8.04
Southwest Airlines Co	27.11	-2.13	-7.27

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Flutter Entertainment	390.9	9484.00	-496.00
Royal Dutch Shell	193.3	1265.40	33.80
Astrazeneca	170.7	8361.00	159.00
Bp	166.5	300.60	1.75
Royal Dutch Shell	158.0	1221.60	21.60
Glaxosmithkline	141.2	1663.00	51.80
Hsbc Holdings	111.4	395.60	-6.85
Relx	102.8	1791.00	-7.50
Diageo	99.1	2734.50	-31.00
British American Tobacco	92.9	2943.00	-2.50

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Hochschild Mining	144.30	13.70	10.49
Bakkavor	75.00	5.00	7.14
Plus500 Ltd	1286.00	77.00	6.37
Hikma Pharmaceuticals	2383.00	132.00	5.86
Royal Mail	168.80	9.10	5.70
Downs			
Hyve	19.20	-2.80	-12.73
Ssp	247.00	-30.40	-10.96
Wh Smith	1084.00	-116.00	-9.67
Iwg	209.80	-19.80	-8.62
Provident Fin	172.10	-15.90	-8.46

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Asml Holding	506.5	257.80	-12.85
Royal Dutch Shella	496.3	14.64	-0.84
Total	479.3	30.49	-2.36
Sap Se O.n.	473.6	106.88	-2.06
Allianz Se Na O.n.	466.5	162.76	-6.12
Sanofi	372.7	88.42	2.38
Basf Se Na O.n.	342.2	45.43	-1.26
Unilever	331.4	44.36	-1.22
Lvmh	316.7	338.55	-13.90
Siemens Ag Na O.n.	305.3	80.80	-3.88

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Man Se St O.n.	44.90	2.45	5.77
Telefonica	4.30	0.12	2.85
Sanofi	88.42	2.38	2.77
Iliad	138.50	2.50	1.84
Assa Abloy Ab Ser. B	16.48	0.16	0.99
Downs			
Thyssenkrupp Ag O.n.	5.21	-0.87	-14.31
Klepierre	16.80	-1.65	-8.97
Ses	5.56	-0.53	-8.76
Skandinaviska Enskilda Banken Ser. A	6.83	-0.61	-8.24
Ab Inbev	38.47	-3.41	-8.15

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	974.1	4608.00	-25.00
Fast Retailing Co.,	779.1	50580.00	-920.00
Tokyo Electron	459.8	21675.00	-1265.00
Toyota Motor	400.6	6494.00	-172.00
Mitsubishi Ufj Fin,.	362.2	415.00	-19.30
Sony	312.7	6806.00	-126.00
Fanuc	242.9	17160.00	-670.00
Advantest	218.4	4975.00	-295.00
Takeda Pharmaceutical	215.6	3823.00	-60.00
Fujifilm Holdings	208.3	5095.00	-44.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Tokyo Gas Co.,	2447.00	89.00	3.77
Nichirei	2735.00	49.00	1.82
Yahoo Japan	426.00	7.00	1.67
Osaka Gas Co.,	2023.00	24.00	1.20
Ntt Docomo,.	3170.00	22.00	0.70
Downs			
Mitsui O.s.k.lines,	1721.00	-172.00	-9.09
Keisei Electric Railway Co.,	2965.00	-295.00	-9.05
Alps Alpine Co.,	1033.00	-90.00	-8.01
Jtekt	736.00	-60.00	-7.54
Nippon Yusen Kabushiki Kaisha	1329.00	-101.00	-7.06

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	May 04 price(p)	%Chg week	%Chg ytd
Winners			
Centrica	38.76	14.0	-57.0
Barclays	99.68	9.5	-46.2
Jd Sports Fashion	522.80	8.6	-37.1
Ashtead	2105.00	6.0	-12.3
Rightmove	494.60	5.1	-22.8
Carnival	964.40	4.6	-73.6
Imperial Brands	1640.00	4.5	-12.6
St. James's Place	829.20	4.4	-29.7
Melrose Industries	93.68	4.0	-61.3
Barratt Developments	534.40	4.0	-28.9
Flutter Entertainment	9484.00	3.9	0.4
Admiral	2367.00	3.5	2.8
Losers			
Royal Dutch Shell	1221.60	-10.6	-45.9
Easyjet	527.00	-10.5	-63.1
Royal Dutch Shell	1265.40	-9.5	-43.9
Int Consolidated Airlines S.a.	203.90	-7.4	-68.0
Compass	1250.50	-6.6	-34.3
Intercontinental Hotels	3394.00	-5.7	-35.0
Rio Tinto	3557.00	-5.4	-21.4
Rolls-royce Holdings	291.40	-5.3	-57.2
Associated British Foods	1761.00	-5.2	-31.7
Hsbc Holdings	395.60	-5.0	-33.5
Intertek	4518.00	-4.7	-22.4
Bae Systems	491.50	-4.4	-14.4

FTSE 250	May 04 price(p)	%Chg week	%Chg ytd
Winners			
Petrofac	188.75	23.0	-50.7
Paypoint	678.00	15.5	-33.8
Micro Focus Int	450.00	15.2	-59.5
Equiniti	160.60	14.7	-24.3
Marston's	35.30	13.9	-72.8
Dixons Carphone	75.85	13.2	-46.7
Savills	990.00	12.1	-13.5
Royal Mail	168.80	12.0	-27.2
Games Workshop	5955.00	11.9	-1.8
William Hill	116.80	11.9	-40.2
Ti Fluid Systems	158.60	11.7	-40.0
Wood (john)	176.00	11.2	-54.5
Losers			
Hyve	19.20	-15.8	-80.8
Aston Martin Lagonda Global Holdings	50.75	-13.0	-71.1
Stagecoach	65.80	-12.9	-59.1
Ssp	247.00	-12.3	-62.7
Genus	3250.00	-11.3	0.8
Cls Holdings	185.00	-10.8	-40.1
Greggs	1604.00	-9.5	-32.5
Network Int Holdings	377.20	-9.4	-40.6
Hastings Holdings	176.60	-9.2	-1.9
Hiscox Ltd	666.40	-8.9	-53.4
Eur Opportunities Trust	680.00	-8.6	-17.1
Spirent Communications	234.00	-8.2	-5.3

FTSE SmallCap	May 04 price(p)	%Chg week	%Chg ytd
Winners			
Asa Int	130.00	160.0	-
Riverstone Energy	254.00	60.2	-41.1
Amigo Holdings	27.00	59.8	-61.8
Gulf Marine Services	5.00	58.7	-32.0
Int Personal Finance	49.00	34.6	-69.7
Ao World	71.30	22.7	-16.9
Dialight	218.50	20.4	-5.0
Halfords	111.20	16.6	-34.7
Tullow Oil	24.84	16.2	-58.4
Ing-London Senior Secured Uk Property Debt Investments	79.00	16.2	-17.1
Kenmare Resources	203.00	16.0	-15.1
Premier Oil	29.09	15.6	-70.8
Losers			
Stobart Ld	51.40	-19.7	-54.0
Hyve	19.20	-15.8	-80.8
Value And ome Trust	162.00	-14.3	-41.7
Funding Circle Holdings	85.00	-13.1	-12.0
Petra Diamonds	1.97	-13.0	-77.7
Schroder Real Estate Investment Trust	35.00	-12.5	-37.9
Dignity	231.00	-10.3	-61.5
Picton Property ome Ld	64.50	-9.8	-34.1
Vectura	84.50	-9.2	-7.7
Restaurant	50.05	-9.0	-69.9
Triple Point Social Housing Reit	96.00	-8.6	3.4
Schroder Uk Public Private Trust	22.00	-8.5	-40.4

Industry Sectors	May 04 price(p)	%Chg week	%Chg ytd
Winners			
Oil Equipment & Services	3832.57	14.8	-
Industrial Transportation	1617.84	5.9	-
Automobiles & Parts	2649.85	3.7	-
Electricity	6994.30	2.1	-16.8
Software & Computer Services	1728.69	1.8	-
General Retailers	1850.66	1.8	-
Industrial Engineering	10125.10	1.1	-
Household Goods	16395.97	1.0	-8.9
General Industrials	4688.63	0.8	-
Media	6748.49	0.4	-
Life Insurance	5424.63	0.4	-
Tobacco	31183.59	0.3	-9.3
Losers			
Index - Technology Hardware & Equipment	1845.60	-8.4	-7.2
Oil & Gas Producers	4696.91	-7.5	-
Aerospace & Defense	3320.57	-3.6	-
Food Producers	6318.30	-3.5	-
Mining	13933.37	-3.3	-
Travel & Leisure	6068.34	-2.4	-
Forestry & Paper	15242.65	-1.9	-
Banks	2254.96	-1.6	-
Personal Goods	33450.87	-1.5	-
Fixed Line Telecommunication	1392.58	-1.4	-
Chemicals	10215.25	-1.4	-
Mobile Telecommunications	2483.41	-1.3	-

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

CURRENCIES

May 4	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	66.9170	0.4695	73.0503	-0.0983	83.1174	-0.2243
Australia	Australian Dollar	1.5592	0.0085	1.7021	-0.0050	1.9367	-0.0083
Bahrain	Bahrainin Dinar	0.3771	0.0001	0.4117	-0.0034	0.4684	-0.0045
Bolivia	Bolivian Boliviano	6.9100	-	7.5433	-0.0635	8.5829	-0.0840
Brazil	Brazilian Real	5.5902	0.1063	6.1026	0.0657	6.9436	0.0655
Canada	Canadian Dollar	1.4083	0.0006	1.5373	-0.0123	1.7492	-0.0164
Chile	Chilean Peso	838.9750	2.4250	915.8716	-5.0434	1042.0885	-7.1534
China	Chinese Yuan	7.0521	-	7.6985	-0.0648	8.7594	-0.0857
Colombia	Colombian Peso	3988.3400	25.2500	4353.8931	-8.8707	4953.9064	-16.7963
Costa Rica	Costa Rican Colon	568.5800	-	620.6934	-5.2272	706.2316	-6.9091
Czech Republic	Czech Koruna	24.8157	0.1329	27.0901	-0.0818	30.8234	-0.1349
Denmark	Danish Krone	6.8362	0.0586	7.4628	0.0016	8.4912	-0.0096
Egypt	Egyptian Pound	15.7554	0.0499	17.1995	-0.0899	19.5697	-0.1289
Hong Kong	Hong Kong Dollar	7.7538	0.0014	8.4645	-0.0697	9.6310	-0.0925
Hungary	Hungarian Forint	324.3714	2.4202	354.1018	-0.3178	402.9008	-0.9062
India	Indian Rupee	75.7182	0.6232	82.6581	-0.0101	94.0493	-0.1385
Indonesia	Indonesian Rupiah	15100.0000	225.0000	16483.9965	108.8618	18755.6736	98.7135
Israel	Israeli Shekel	3.5246	0.0161	3.8476	-0.0147	4.3778	-0.0227
Japan	Japanese Yen	106.9250	0.0200	116.7253	-0.9610	132.8112	-1.2742
..One Month		106.9250	0.0199	116.7253	-0.9609	132.8112	-1.2743
..Three Month		106.9248	0.0197	116.7253	-0.9609	132.8111	-1.2745
..One Year		106.9242	0.0183	116.7254	-0.9607	132.8112	-1.2751
Kenya	Kenyan Shilling	106.6500	-0.6000	116.4250	-1.6410	132.4697	-2.0485
Kuwait	Kuwaiti Dinar	0.3091	-0.0005	0.3374	-0.0034	0.3839	-0.0044
Malaysia	Malaysian Ringgit	4.3145	0.0145	4.7099	-0.0237	5.3590	-0.0342
Mexico	Mexican Peso	24.3940	-0.3038	26.6298	-0.5586	30.2997	-0.6774
New Zealand	New Zealand Dollar	1.6598	0.0134	1.8119	-0.0005	2.0616	-0.0034
Nigeria	Nigerian Naira	390.0000	6.0000	425.7456	3.0197	484.4179	2.7864
Norway	Norwegian Krone	10.3692	0.0564	11.3195	-0.0332	12.8795	-0.0552
Pakistan	Pakistani Rupee	160.1000	-0.2750	174.7740	-1.7746	198.8598	-2.2904
Peru	Peruvian Nuevo Sol	3.3881	0.0135	3.6986	-0.0162	4.2083	-0.0242
Philippines	Philippine Peso	50.6100	0.2000	55.2487	-0.2451	62.8625	-0.3641
Poland	Polish Zloty	4.1798	0.0347	4.5628	-0.0003	5.1917	-0.0073
Romania	Romanian Leu	4.4228	0.0288	4.8281	-0.0089	5.4935	-0.0176
Russia	Russian Ruble	75.2650	-0.3737	82.1634	-1.1034	93.4864	-1.3834
Saudi Arabia	Saudi Riyal	3.7585	0.0030	4.1030	-0.0313	4.6684	-0.0419
Singapore	Singapore Dollar	1.4170	0.0020	1.5469	-0.0108	1.7601	-0.0147
South Africa	South African Rand	18.6710	-0.1925	20.3823	-0.3836	23.1912	-0.4683
South Korea	South Korean Won	1229.1500	10.7000	1341.8084	0.4791	1526.7239	-1.5156
Sweden	Swedish Krona	9.8812	0.0856	10.7868	0.0033	12.2733	-0.0128
Switzerland	Swiss Franc	0.9646	0.0051	1.0530	-0.0033	1.1981	-0.0053
Taiwan	New Taiwan Dollar	29.8490	0.1125	32.5848	-0.1506	37.0754	-0.2216
Thailand	Thai Baht	32.3550	-	35.3205	-0.2975	40.1881	-0.3932
Tunisia	Tunisian Dinar	2.8919	0.0046	3.1570	-0.0216	3.5920	-0.0294
Turkey	Turkish Lira	7.0499	0.0194	7.6961	-0.0435	8.7567	-0.0614
United Arab Emirates	UAE Dirham	3.6732	-	4.0098	-0.0338	4.5624	-0.0446
United Kingdom	Pound Sterling	0.8051	0.0078	0.8789	0.0012	-	-
..One Month		0.8051	0.0078	0.8788	0.0012	-	-
..Three Month		0.8051	0.0078	0.8787	0.0012	-	-
..One Year		0.8052	0.0078	0.8782	0.0012	-	-
United States	United States Dollar	-	-	1.0917	-0.0092	1.2421	-0.0122
..One Month		-	-	1.0916	-0.1626	1.2421	-0.0122
..Three Month		-	-	1.0914	-0.1626	1.2421	-0.0122
..One Year		-	-	1.0907	-0.1626	1.2422	-0.0122
Venezuela	Venezuelan Bolivar Fuerte	-	-	-	-	-	-
Vietnam	Vietnamese Dong	23446.0000	17.0000	25594.9547	-196.8538	29122.2552	-263.5808
European Union	Euro	0.9160	0.0076	-	-	1.1378	-0.0015
..One Month		0.9160	0.0076	-	-	1.1378	-0.0015
..Three Month		0.9158	0.0077	-	-	1.1377	-0.0015
..One Year		0.9151	0.0077	-	-	1.1372	-0.0015

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

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg May 04	Day's chge%	Euro Index	£ Strlg May 01	£ Strlg Apr 30	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	5753.78	-0.16	5106.44	5763.06	5901.21	7380.64	5.35	1.45	12.92	79.92	5385.44
FTSE 250 (251)	15951.68	-1.22	14157.00	16148.34	16454.46	19705.17	4.01	2.02	12.32	112.99	12498.26
FTSE 250 ex Inv Co (187)	16305.81	-1.37	14471.29	16531.96	16854.53	20793.35	4.37	1.48	15.50	99.78	13050.44
FTSE 350 (351)	3216.87	-0.34	2854.95	3227.82	3302.47	4100.19	5.13	1.52	12.82	41.03	6008.50
FTSE 350 ex Investment Trusts (286)	3156.64	-0.33	2801.50	3167.00	3240.77	4053.42	5.25	1.45	13.13	40.83	3041.98
FTSE 350 Higher Yield (107)	2575.51	-0.03	2285.74	2576.34	2654.76	3641.80	8.00	1.28	9.73	43.68	5239.50
[illegible]											
Technology (15)	1801.40	0.19	1598.73	1798.01	1845.33	2132.08	3.75	0.84	31.88	13.03	2488.69
Software & Computer Services (13)	1939.12	0.28	1720.96	1933.68	1987.11	2363.58	3.95	0.76	33.15	13.43	2832.88
Technology Hardware & Equipment (2)	4256.60	-0.82	3777.70	4291.94	4343.51	3339.93	1.61	2.76	22.48	43.15	5259.34

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	5707.52	5766.03	5749.47	5747.33	5752.07	5761.63	5755.01	5770.37	5772.74	5792.67	5703.36
FTSE 250	15909.15	16012.61	15978.75	15941.26	15921.52	15921.72	15926.94	15971.26	15955.93	16058.15	15863.84
FTSE SmallCap	4591.30	4575.67	4576.47	4564.87	4557.80	4554.38	4555.88	4550.70	4553.17	4591.30	4550.16
FTSE All-Share	3156.69	3185.73	3177.28	3174.86	3176.18	3180.36	3177.62	3185.73	3186.39	3196.68	3155.33

Time of FTSE 100 Day's high:14:19:00 Day's Low07:03:15 FTSE 100 2010/11 High: 7674.56(17/01/2020) Low: 4993.89(23/03/2020)
Time of FTSE All-Share Day's high:14:19:00 Day's Low07:04:00 FTSE 100 2010/11 High: 4257.93(17/01/2020) Low: 2727.86(23/03/2020)

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FT 30 INDEX

	May 04	May 01	Apr 30	Apr 29	Apr 28	Yr Ago	High	Low
FT 30	2145.80	2169.90	2217.40	2306.80	2231.70	0.00	3314.70	1337.80
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 since compilation: 4198.4 high: 19/07/1999; low49.4 18/02/1900Base Date: 1/7/35

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2169.9	2154.5	2148.1	3120.5	2142.6	2143.1	2140.4	2147.4	2152.2	2169.9	2126.4

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

FX: EFFECTIVE INDICES

[illegible]

FTSE GLOBAL EQUITY INDEX SERIES

[illegible]

FTSE EDHEC-Risk Efficient Developed Europe	588	271.55	-0.3	10.8	-19.7	446.99	-19.1	3.6		
Oil & Gas	150	225.59	-4.0	14.2	-38.0	406.30	-37.2	6.9		
Oil & Gas Producers	104	216.95	-4.2	13.4	-38.6	398.97	-37.8	7.1		
Software & Computer Services	149	615.17	-2.2	-2.2	1.2	733.31	1.3	0.7		
Technology Hardware & Equipment	140	258.14	-2.4	-2.4	-7.2	349.61	-6.6	2.1		
Alternative Energy	10	113.33	0.0	0.0	-10.5	159.84	-9.8	1.4		
Real Estate Investment & Services	158	300.39	-0.9	-0.9	-18.6	540.68	-18.0	3.6		
Real Estate Investment Trusts	81	394.39	-3.1	-3.1	-20.5	848.81	-19.5	4.6		
Real Estate Investment & Services	152	258.63	2.8	2.8	-30.0	463.40	-29.7	4.2		

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

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Pharmace & Biotech	-0.14	Support Services	-21.57	Mining	-26.00
Tech Hardware & Eq	-1.35	Chemicals	-21.87	FTSE 250 Index	-26.21
Health Care	-2.81	Software & Comp Serv	-21.97	Real Est Invest & Tr	-26.63
Food & Drug Retailer	-4.49	NON FINANCIALS Index	-22.19	Consumer Services	-27.90
Gas Water & Multi	-6.65	Construct & Material	-22.60	General Retailers	-28.14
Leisure Goods	-7.54	FTSE SmallCap Index	-22.63	Financials	-28.88
Electronic & Elec Eq	-8.05	Forestry & Paper	-23.30	Telecommunications	-29.59
Utilities	-8.60	Industrials	-23.46	Aerospace & Defense	-31.05
[illegible]					

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3i Group PLC	755.80	13.60	Land Securities Group PLC	649.40	4.00
Admiral Group PLC	2367	53.00	Legal & General Group PLC	197.00	1.05
Anglo American PLC	1354.4	-7.60	Lloyds Banking Group PLC	30.60	-1.09
Antofagasta PLC	767.80	-11.80	London Stock Exchange Group PLC	7426	-44.00
Ashtead Group PLC	2105	-5.00	M&G PLC	123.60	-5.60
Associated British Foods PLC	1761	-70.00	Meggitt PLC	267.00	4.20
[illegible]					

UK STOCK MARKET TRADING DATA

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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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POWERED BY MORNINGSTAR

UK RIGHTS OFFERS

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

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

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Bidstack Group	Pre	0.140	0.317	5.357L	3.313L	2.260L	4.230L	0.00000	0.00000	-	0.000	0.000
Cadogan Petroleum	Pre	5.876	14.730	2.102L	1.039	0.009L	0.005	0.00000	0.00000	-	0.000	0.000
Downing Strategic Micro-Cap Investment Trust	Pre			1.156L	10.269L	2.100L	18.470L	0.00000	1.25000	-	0.000	1.250
The Royal Bank of Scotland Group	1st	3162.000	3037.000	519.000	1013.000	2.400	5.900	0.00000	0.00000	-	1.993	5.500

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)

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

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ	16.15	0.40	29.30	14.10	10.50	7.14	29376.59
BHPBilltn	29.88	0.04	42.33	24.05	6.48	10.98	56452.97
CmwBkAu	59.88	1.04	91.05	53.44	7.40	12.81	67984.38
CSL	307.38	8.62	342.75	195.15	0.89	47.30	89510.39
NatAusBk	16.46	0.32	30.00	13.20	11.72	8.90	33740.71
Telstra	3.08	0.09	4.01	2.87	3.34	17.32	23493.54
Wesfarmers	36.78	0.45	47.42	29.75	4.97	20.38	26746.01
Westpc	15.77	0.43	30.05	13.47	12.64	7.85	36528.94
Woolworths	35.25	0.80	43.96	31.02	2.97	30.77	28555.41
Belgium (€)							
AnBshInBv	38.47	-3.42	92.71	29.03	4.47	10.37	71100.12
KBC Grp	46.80	-2.48	73.56	33.44	7.53	8.25	21273.38
Brazil (R$)							
Ambev	11.39	0.05	20.77	10.36	5.61	11.78	32060.15
Bradesco	16.62	-0.94	32.63	14.05	2.65	6.01	13185.84
Cielo	3.96	-0.10	9.07	3.84	16.91	5.23	1924.54
ItauHldFin	21.35	-0.65	32.79	19.46	7.81	6.14	18936.6
Petrobras	17.87	-0.78	33.65	10.50	3.53	5.78	23791.07
Vale	43.78	-1.08	57.36	32.45	-	10.94	41385.68
Canada (C$)							
BCE	55.74	0.13	65.45	46.03	5.79	16.24	35794.23
BkMontrl	67.82	-0.74	106.43	55.76	6.10	7.72	30801.64
BkNvaS	53.25	-1.00	76.75	46.38	6.67	7.79	45824.17
Brookfield	46.16	0.02	60.48	31.35	1.94	8.74	51569.85
CanadPcR	305.81	-6.09	365.69	252.00	1.05	17.14	29453.25
CanImp	80.56	-0.44	115.96	67.52	7.07	7.16	25441.49
CanNatRs	21.79	-0.06	42.57	9.80	7.18	5.96	18286.67
CanNatRy	111.93	-1.29	127.96	92.01	1.96	18.86	56521.7
Enbridge	42.34	0.33	57.32	33.06	7.10	15.81	60886.02
GtWesLif	21.86	-0.42	35.60	18.88	7.69	8.61	14400.2
ImpOil	21.67	-0.15	38.96	10.27	4.06	5.65	11295.89
Manulife	16.61	-0.30	27.78	12.58	6.13	5.89	22868.66
Nutrien	49.59	0.83	73.25	34.80	4.69	22.09	20066.67
RylBkC♦	84.02	-0.46	109.68	72.00	4.94	9.30	84954.79
Suncor En	23.64	-0.50	45.12	14.02	7.24	12.48	25719.1
ThmReut	97.90	0.66	109.99	75.91	1.94	23.76	34458.16
TntoDom	56.73	-0.31	77.96	49.01	5.24	8.58	72609.78
TrnCan	63.70	0.70	76.58	47.05	4.95	13.85	42514.23
ValeantPh	30.80	-1.06	36.02	14.01	-	-4.62	8158.48
China (HK$)							
AgricBkCh	3.09	-0.17	3.59	2.69	6.18	4.78	12249.73
Bk China	2.87	-0.10	3.71	2.71	7.07	4.30	30951.95
BkofComm	4.68	-0.24	6.63	4.20	7.03	4.32	21132.11
BOE Tech	0.61	0.02	1.05	0.47	-	24.27	15.65
Ch Coms Cons	4.86	-0.33	7.47	4.73	5.34	3.79	2775.11
Ch Evrbrght	3.09	-0.20	3.87	2.65	5.71	4.63	5052.6
Ch Rail Cons	8.09	-0.41	10.18	7.30	2.84	5.56	2166.3
Ch Rail Gp	4.58	-0.08	6.44	3.45	3.07	5.44	2485.18
ChConstBk	6.06	-0.26	6.87	5.55	5.56	5.32	187898.16
China Vanke	24.75	-1.05	34.75	21.65	4.64	6.50	5036.74
ChinaCitic	3.62	-0.17	4.95	3.37	6.96	3.63	6947.89
ChinaLife	15.68	-0.86	22.90	11.64	1.13	12.48	15047.69
ChinaMBank	35.10	-2.05	42.75	29.80	2.94	8.62	20782
ChinaMob	60.10	-2.35	74.15	45.20	5.16	10.33	158705.26
ChinaPcIns	24.20	-1.50	34.75	17.90	4.54	6.52	8661.79
ChMinsheng	5.56	-0.24	6.06	4.91	6.83	4.20	5966.15
ChMrchSecs	18.48	0.24	19.75	14.74	1.44	22.85	14986.66
Chna Utd Coms	5.22	0.08	6.96	5.00	1.03	33.51	15914.4
ChShenEgy	13.12	-0.74	17.56	11.96	7.57	5.22	5750.61
ChShpbldng	4.17	0.04	6.86	4.05	0.22	217.03	10811.46
ChStConEng	5.24	0.06	6.20	4.93	3.24	5.63	30652.88
ChUncHK	4.79	-0.22	9.19	3.84	3.13	12.05	18902.3
CNNC Intl	4.33	0.07	5.94	4.22	2.80	14.87	9557.18
CSR	3.96	-0.15	6.91	3.60	4.16	8.61	2232.35
Daqin	7.18	0.10	8.85	6.69	6.76	7.40	15136.48
Gree Elec Apl	0.08	0.00	0.37	0.01	-	-0.02	3.61
GuosenSec	10.69	0.15	14.28	10.38	1.13	21.14	12430.05
HaitongSecs	6.58	-0.49	9.82	6.50	2.50	7.71	2893.39
Hngzh HikVDT	32.06	0.89	40.09	23.55	1.89	24.58	36779.67
Hunng Pwr	2.75	-0.17	5.08	2.24	4.13	20.80	1667.04
IM Baotou Stl	1.08	0.03	1.85	1.04	0.66	21.99	4851.37
In&CmBkCh	5.06	-0.21	6.11	4.81	5.43	5.37	56640.06
IndstrlBk	16.62	0.11	20.42	14.93	4.20	5.37	46228.05
Kweichow	1265.7	-9.20	1299.94	840.00	1.16	38.43	225460.47
Midea	0.74	0.04	1.50	0.58	-	-2.66	20.52
New Ch Life Ins	25.80	-1.10	42.65	20.45	3.27	4.64	3440.87
PetroChina	2.55	-0.24	4.84	2.20	5.73	10.21	6938.8
PingAnIns	78.00	-1.70	101.00	69.00	2.53	8.92	74919.05
PngAnBnk	13.93	-0.09	17.60	11.60	1.00	9.97	38332.18
Pwr Cons Corp	3.57	0.07	5.47	3.41	2.77	7.51	5641.63
SaicMtr	18.90	0.81	27.48	17.46	6.74	7.50	31312.26
ShenwanHong	0.04	0.00	0.13	0.04	-	-2.14	45.20
ShgPdgBk	10.63	0.02	13.33	9.82	3.33	5.18	42362.21
Sinopec Corp	3.59	-0.33	5.98	3.20	11.85	8.43	11812.72
Sinopec Oil	1.88	0.03	2.86	1.80	-	66.46	3210.45
Denmark (kr)							
DanskeBk	76.00	-1.50	123.60	68.04	10.77	4.48	9585.16
MollerMrsk	6124	-476.00	10555	4976	2.36	41.54	9012.38
NovoB	431.90	0.50	453.20	310.15	1.90	26.48	117673.76
Finland (€)							
Nokia	3.24	-0.08	5.12	2.08	2.98	1349.77	20000.68
SampoA♦	29.14	-1.10	42.55	21.34	9.43	14.82	17628.04
France (€)							
Airbus Grpe	55.00	-2.88	139.40	48.12	2.89	-32.60	47022.54
AirLiquide	112.90	-3.20	140.70	94.86	2.06	24.76	58330.94
AXA	15.42	-0.78	25.62	11.84	8.38	10.53	40697.71
BNP Parib	27.11	-1.57	54.22	24.51	10.74	4.53	36987.51
ChristianDior	334.40	-21.00	498.20	252.40	1.79	21.32	65894.19
Cred Agr	6.90	-0.38	13.80	5.70	10.06	5.50	21735
Danone	61.50	-1.76	82.38	50.26	3.04	21.62	46063.96
EDF	6.91	-0.36	13.61	5.98	4.32	4.35	23425.23
Engie SA	9.44	-0.46	16.80	8.63	3.88	28.81	25106.79
EssilorLuxottica	107.00	-5.65	145.00	86.76	1.94	32.64	51112.66
Hermes Intl	646.20	-21.60	725.60	516.00	0.72	45.86	74471.59
LOreal	250.20	-15.10	278.50	196.00	1.48	38.97	152756.99
LVMH	338.55	-13.90	439.05	278.70	1.80	25.33	186647.97
Orange	10.78	-0.36	15.38	8.84	6.61	14.91	31289.16
PernodRic	136.20	-2.90	179.50	112.25	1.01	24.41	39463.8
Renault♦	17.07	-1.03	61.87	12.77	20.05	-34.05	5511.3
Safran	78.00	-6.22	152.30	51.10	2.38	15.32	36378.76
Sanofi♦	88.42	2.38	95.06	67.65	3.35	39.66	121026.46
Sant Gbn	23.10	-1.11	39.57	16.41	5.86	-113.45	13735.42
Schneider	80.54	-2.92	105.50	61.72	2.81	19.28	51176.58
SFR Group	34.50	-	34.56	21.87	-	-23.02	17905.81
SocGen	13.15	-1.11	32.23	12.80	16.13	4.47	12250.38
Total	30.49	-2.36	50.93	21.12	8.19	8.51	86603.12
UnibailR	190.00	0.35	236.45	177.35	5.80	17.44	22215.04
Vinci	70.28	-4.42	107.35	54.76	3.72	12.53	46509.57
Vivendi	19.49	-0.22	26.42	16.60	2.47	15.82	25223.35
Germany (€)							
Allianz	162.76	-6.12	232.60	117.10	5.57	8.82	74122.37
BASF♦	45.43	-1.26	73.27	37.36	6.79	17.45	45550.94
Bayer	57.95	-2.19	78.34	44.86	4.66	24.43	62149.55
BMW	51.57	-2.48	77.06	36.60	6.54	7.23	33890.32
Continental♦	73.84	-3.36	149.26	51.45	6.20	-12.49	16122.05
Daimler	29.64	-1.90	59.26	21.02	10.57	13.85	34616.38
Deut Bank	6.43	-0.35	10.37	4.45	1.72	-2.28	14498.37
Deut Tlkm	12.89	-0.44	16.75	10.41	5.24	16.30	66974.58
DeutsPost	25.92	-1.23	35.00	19.11	4.47	12.50	34987.84
E.ON	8.96	-0.19	11.56	7.60	4.83	32.97	25835.35
Fresenius Med	69.54	-2.12	81.10	53.50	1.62	18.21	23110.94
Fresenius SE	38.04	-1.59	52.32	24.25	2.03	11.67	18773.8
HenkelKgaA	68.80	-2.30	90.30	54.65	2.56	14.90	19512.2
Linde	164.90	-3.60	208.60	130.45	1.82	48.00	94537.53
MuenchRkv♦	193.90	-6.90	284.20	141.10	4.60	10.60	30548.05
SAP	106.88	-2.06	129.60	82.13	1.35	39.88	143337.12
Siemens	80.80	-3.88	119.90	58.77	4.53	13.12	74974.9
Volkswgn	128.20	-8.10	185.00	99.16	3.61	5.00	41297.88
Hong Kong (HK$)							
AIA	67.90	-4.05	88.50	60.05	1.20	18.71	105862.33
BOC Hold	23.35	-0.50	35.00	20.30	6.09	8.04	31838.98
Ch OSLnd&Inv	26.90	-1.55	31.00	21.80	3.24	6.52	38009.69
ChngKng	47.80	-1.20	63.30	33.40	3.85	5.97	22768.64
Citic Ltd	7.31	-0.76	11.48	7.30	5.43	4.12	27425.14
Citic Secs	14.00	-0.96	18.72	12.60	2.62	13.28	4113.64
CK Hutchison	55.30	-2.10	82.05	45.05	5.55	5.60	27502.48
CNOOC	8.16	-0.63	14.04	6.24	8.28	5.74	46986.09
HangSeng	132.10	-4.40	210.00	124.40	5.51	11.09	32571.49
HK Exc&Clr	246.40	-5.60	283.60	206.00	2.57	35.35	40289.02
MTR	41.30	-1.75	55.75	38.00	2.81	18.07	32801.62
SandsCh	30.40	-1.50	45.45	25.15	6.31	16.55	31713.45
SHK Props	102.60	-3.80	137.60	89.90	4.50	8.00	38343.83
Tencent	400.00	-17.00	420.00	312.20	0.23	39.74	492822.42
India (Rs)							
Bhartiartl	532.50	18.20	568.85	312.60	-	-9.91	38367.08
HDFC Bk	923.00	-78.80	1305.5	738.75	0.81	19.51	66848.94
Hind Unilevr	2082.65	-112.35	2614.3	1656	1.15	66.64	64575.17
HsngDevFin	1724.35	-191.65	2499.9	1473.45	1.21	13.79	39444.49
ICICI Bk	338.05	-42.10	552.20	268.30	0.29	23.52	28903.69
Infosys	673.70	-41.80	847.00	509.25	2.79	17.31	37894.26
ITC	174.05	-8.00	310.00	134.60	3.29	14.37	28255.66
L&T	850.65	-46.90	1607	661.00	2.10	12.47	15770.77
OilNatGas	76.55	-3.35	178.90	50.00	9.10	4.52	12718.54
Relianceln	1435.2	-30.80	1617.55	875.65	0.45	20.28	120158.16
SBI NewA	178.85	-11.65	373.80	173.55	-	12.06	21080.38
SunPhrmInds	465.45	1.00	504.80	312.00	0.59	28.07	14749.05
Tata Cons	1930.45	-84.00	2296.2	1506.05	1.65	22.47	95667.84
Indonesia (Rp)							
Bk Cent Asia	22300	200.00	24700	16800	-	-	38879.26
Israel (ILS)							
TevaPha	38.39	1.51	56.50	21.75	-	-12.77	12088.3
Italy (€)							
Enel	6.01	-0.23	8.61	5.15	4.69	23.87	66668.72
ENI	8.21	-0.50	15.30	6.26	10.30	11.82	32575.31
Generali	12.70	-0.32	19.63	10.20	6.83	9.55	21850.42
IntSPaolo	1.38	-0.05	2.63	1.31	13.80	6.06	26301.71
Unicred	6.63	-0.40	14.44	6.42	3.92	8.03	16174.2
Japan (¥)							
AstellasPh	1783	-3.50	1987	1375	2.04	16.32	31051.56
Bridgestne	3265	-113.00	4734	2861.5	4.56	8.67	21797.15
Canon	2217	-67.50	3276	2035	7.27	14.43	27659.64
CntJpRwy	16640	-365.00	23455	14340	0.84	7.77	32064.36
Denso	3568	-244.00	5174	3021	3.65	14.95	26298
EastJpRwy	7681	-192.00	10830	7060	1.91	11.39	27154
Fanuc	17160	-670.00	22030	12020	1.90	43.33	32750.45
FastRetail	50580	-920.00	70230	39910	0.90	34.14	50186.67
Fuji Hvy Ind	2065	-110.00	3184	1671.5	6.49	12.02	14857.57
Hitachi	3095	-146.00	4693	2524	2.71	15.98	28003.68
HondaMtr	2456	-154.50	3259	2120	4.25	9.80	41615.16
JapanTob	1981	-33.50	2605.5	1862	7.24	10.86	37060.94
KDDI	3087	-22.00	3451	2523	3.32	12.02	68014
Keyence	38700	-70.00	40520	28905	0.24	49.35	88042.07
MitsbCp	2231	-69.00	3090	2094.5	5.30	7.17	33183.31
MitsubEst	1720.5	-42.00	2283	1291	1.73	20.44	22389.18
MitsubishiEle	1295.5	-45.00	1658	1096.5	2.88	13.11	26020.3
MitsuiFud	1917	-81.00	3035	1538	2.23	11.96	17559.73
MitUFJFin	415.00	-19.30	603.00	380.00	5.70	6.84	52724.63
Mizuho Fin	121.20	-4.60	174.60	108.40	5.76	42.12	28787.98
Murata Mfg	5897	-122.00	6920	4304	2.95	85.57	37277.38
NipponTT	2435	-8.00	2908	2153	3.63	11.59	88849.17
Nissan Mt	348.30	-21.50	890.60	311.20	10.29	35.05	13751.22
Nomura	440.40	-9.40	586.40	330.70	3.81	6.24	14391.91
Nppn Stl	861.40	-50.50	1997	798.10	5.84	4.47	7657.33
NTTDCMo	3170	22.00	3475	2381	3.38	18.60	95736.93
Panasonic	788.80	-38.00	1264	691.70	3.54	6.85	18101.9
Seven & I	3435	-118.00	4485	3113	2.87	13.81	28482.56
ShnEtsuCh	11510	-505.00	13945	8751	1.70	16.44	44860.28
Softbank	4608	-25.00	6012.5	2609.5	0.67	-9.16	90078.71
Sony	6806	-126.00	8113	5070	0.55	14.08	80284.05
SumitomoF	2738	-106.00	4145	2507.5	6.29	7.67	35169.01
Takeda Ph	3823	-60.00	4562	2894.5	4.39	-59.44	56372.27
TokioMarine	4742	-344.00	6317	4167	3.63	12.83	31138.71
Toyota	6494	-172.00	8026	5771	3.16	8.06	198212.48
Mexico (Mex$)							
AmerMvl	14.47	-0.13	16.82	12.33	1.55	12.65	26609.01
FEMSA UBD	152.01	-3.76	192.50	127.25	2.05	12.16	13467.27
WalMrtMex	57.50	-0.47	62.71	47.76	2.04	20.98	41158.97
Netherlands (€)							
Altice	3.61	-0.02	6.86	2.26	-	3.24	4097.05
ASML Hld	257.80	-12.85	294.40	165.04	1.18	43.48	119792.88
Heineken♦	73.62	-4.00	105.00	68.82	2.21	21.78	46291.99
ING	4.72	-0.29	11.41	4.23	13.89	4.90	20097.73
Unilever	44.36	-1.22	57.77	38.42	3.52	21.50	70736.33
Norway (Kr)							
DNB	118.55	-5.65	178.10	94.26	7.70	6.88	18067.51
Equinor	133.70	-9.75	188.55	95.20	7.30	25.00	43048.76
Telenor	151.85	-5.40	190.80	130.75	6.29	34.02	21123.93
Qatar (QR)							
QatarNtBk	17.10	-0.13	21.25	15.71	3.32	12.46	43378.98
Russia (RUB)							
Gzprm neft	185.71	-3.02	272.68	158.17	10.29	2.41	58976.64
Lukoil	4745.5	-157.00	6810	3663	6.06	4.23	44107.51
MmcNrlskNckl	20150	-66.00	23656	13352	12.39	7.95	42774.79
Novatek	973.20	-3.20	1382.2	682.80	3.08	2.95	39639.58
Rosneft	324.00	-11.00	489.90	229.80	9.20	4.53	46063.6
Sberbank	188.91	-2.03	270.80	172.15	9.47	4.04	54705
Surgutneftegas	35.13	-0.76	54.89	24.06	2.13	2.93	16833.73
Saudi Arabia (SR)							
AlRajhiBnk	52.60	-4.60	75.10	51.00	6.76	13.67	35015.3
Natnlcombnk	34.65	-2.50	63.90	30.50	6.47	8.95	27679.41
SaudiBasic	69.00	-5.90	123.40	61.90	6.04	39.35	55119.15
SaudiTelec	88.20	-2.40	117.00	72.30	4.59	16.09	46971.1
Singapore (S$)							
DBS	19.57	-0.39	27.04	16.65	7.57	8.05	35066.75
JardnMt US$♦	43.92	-0.04	66.69	42.52	3.78	10.09	32178.59
JardnStr US$♦	21.90	0.35	40.00	17.81	1.51	7.87	24268.14
OCBC	8.87	-0.17	11.82	7.80	5.35	8.04	27527.17
SingTel	2.72	-0.11	3.56	2.19	6.36	35.34	31343.71
UOB	19.81	-0.53	27.02	17.28	5.24	7.89	23309.83
South Africa (R)							
Firstrand	38.89	-1.58	71.79	31.13	9.37	6.12	11684.06
MTN Grp	46.45	-2.16	114.43	26.25	14.02	7.56	4687.72
Naspers N	2868.93	-29.93	3747.36	1843.8	0.31	20.99	66919.33
South Korea (KRW)							
HyundMobis	169500	-2500.00	268500	126000	3.06	7.30	13108.06
KoreaElePwr	22800	-1050.00	29500	15550	-	-7.81	11908.05
SK Hynix	81000	-2700.00	106000	62400	1.92	9.66	47974.77
SmsungEl	48500	-1500.00	62800	40850	2.91	15.37	235556.64
Spain (€)							
BBVA	2.80	-0.19	5.47	2.48	8.95	6.18	20381.33
BcoSantdr	1.96	-0.08	4.56	1.86	11.32	5.63	35545.98
CaixaBnk	1.60	-0.05	2.94	1.51	6.04	6.36	10414.82
Iberdrola	8.95	-0.19	11.35	7.76	3.78	17.41	63025.46
Inditex	21.75	-1.50	32.28	18.51	2.98	18.52	74000.23
Repsol	7.67	-0.65	15.67	5.92	11.68	-3.20	13105.64
Telefonica	4.30	0.12	7.59	3.53	8.97	26.23	24366.83
Sweden (SKr)							
AtlasCpcoB	289.90	-15.40	350.40	223.20	2.15	21.55	11448.51
Ericsson	81.40	-3.70	96.74	59.54	0.92	131.41	25310.12
H & M	127.85	-8.35	214.35	98.13	7.84	16.12	18899.31
Investor	464.00	-27.20	568.60	370.10	2.84	15.66	21388.67
Nordea Bk	58.89	-4.35	86.73	48.00	12.18	14.90	24137.02
SEB	73.72	-6.62	104.90	59.80	8.06	8.03	16189.8
SvnskaHn	83.96	-6.34	113.80	71.80	6.48	9.89	16524.75
Swedbank	108.00	-7.36	162.70	101.40	13.01	6.21	12372.71
Telia Co	32.71	-1.04	44.90	30.29	9.96	20.21	13935.01
Volvo	120.35	-5.80	175.10	95.00	4.11	6.89	20121.06
Switzerland (SFr)							
ABB	17.34	-0.99	24.69	14.11	4.40	39.63	38975.41
CredSuisse	8.20	-0.53	13.80	6.18	3.12	7.71	21717.89
Nestle	99.81	-2.09	113.20	83.37	2.29	24.85	307935.47
Novartis	80.55	-1.71	96.38	65.09	3.20	28.92	211051.27
Richemont	52.46	-2.36	87.44	44.64	3.73	20.01	28389.1
Roche	337.60	2.15	357.85	255.95	2.41	23.14	245889.66
Swiss Re	65.40	-4.26	117.05	52.68	7.59	30.26	22198.08
Swisscom	494.00	-7.80	577.80	446.70	4.16	16.39	26529.3
Syngent	453.40	0.90	471.20	402.50	-	39.22	43035.76
UBS	9.75	-0.59	13.77	7.00	6.37	9.46	39014.63
Zurich Fin	290.00	-17.30	439.90	248.70	5.95	11.58	45234.76
Taiwan (NT$)							
Chunghwa Telecom	109.00	1.00	123.50	103.00	3.98	24.65	28327.95
Formosa PetChem	86.40	1.20	119.00	66.10	5.19	23.98	27573.56
HonHaiPrc	74.50	0.50	101.50	65.70	5.21	8.68	34600.64
MediaTek	399.50	-4.50	464.00	273.00	2.18	31.26	21265.32
TaiwanSem	295.00	0.50	366.00	227.00	3.16	23.73	256272.03
Thailand (THB)							
PTT Explor	35.50	-	49.50	23.60	6.08	10.79	31339.32
United Arab Emirates (Dhs)							
Emirtestele	15.06	-0.44	17.80	11.04	5.37	14.89	35656.87
United Kingdom (p)							
AscBrFd	1761	-70.00	2730	1554	2.58	15.85	17316.55
AstraZen	8361	159.00	9414.36	5637	2.56	107.54	131522.91
Aviva	228.90	-8.60	439.40	3.87	13.22	3.63	11410.28
Barclays	99.68	-3.06	192.99	73.04	7.02	9.27	21126.99
BP	300.60	1.75	565.80	4.69	10.97	-22.77	74415.89
BrAmTob	2943	-2.50	3507	34.85	6.77	10.96	68154.83
BSkyB	1727.5	1.50	1740	893.50	0.76	36.60	38843.72
BT	113.95	1.05	229.80	102.90	13.51	5.23	14043.16
Compass	1250.5	-20.50	2150	20.62	3.08	17.89	25544.46
Diageo	2734.5	-31.00	3633.5	2050.6	2.51	21.31	85505.41
GlaxoSmh	1663	51.80	1857	1328.19	4.81	18.21	101583.62
Glencore	137.56	-2.22	301.45	109.76	10.90	-60.73	24646.55
HSBC	395.60	-6.85	687.70	387.65	9.72	17.47	98521.14
Imperial Brands	1640	-8.00	2399.5	1258.2	11.80	15.50	19427.99
LlydsBkg	30.60	-1.09	73.66	25.68	10.65	9.00	27392.44
Natl Grid	939.00	9.00	1073.8	8.90	5.04	21.99	39148.63
Prudential	1044	-19.00	1532.78	682.80	4.63	18.42	33550.58
RBS	110.15	-3.10	265.00	2.23	4.99	4.25	16371.51
ReckittB	6620	50.00	8191.3	5130	2.58	20.63	57904.54
RELX	1791	-7.50	2109	1382.86	2.42	23.29	42963.22
RioTinto	3557	-57.50	5039	2954	7.03	9.66	59256.86
RollsRoyce	291.40	-21.70	945.60	249.00	4.02	-2.32	6731.64
RylDShlA	1265.4	33.80	2811.38	946.10	11.15	8.60	72255.49
Shire#	4690	111.00	4780	2944	0.58	11.63	56567.13
StandCh	390.30	-18.20	742.60	376.00	4.25	9.17	15982.5
Tesco	233.80	-2.50	332.67	203.70	2.47	17.46	23777.29
Vodafone	109.66	-0.72	169.46	92.76	7.26	-16.59	36331.86
WPP	589.20	-4.80	1085.5	450.00	10.18	10.58	9265.96
United States of America ($)							
21stC Fox A	24.63	-0.80	39.74	19.81	1.88	10.18	8492.64
3M	147.55	-1.05	187.72	114.04	3.66	20.15	84870.22
AbbottLb♦	89.33	-0.52	100.00	61.61	1.34	46.25	158010.95
Abbvie♦	81.89	-0.95	97.86	62.55	4.90	16.54	120924.74
Accenture♦	180.21	0.12	216.39	137.15	1.65	24.16	119264.49
Adobe	349.45	5.61	386.75	255.13	-	60.65	168365.31
AEP	81.67	0.28	104.97	65.14	3.11	22.45	40412.99
Aetna	-	-	-	-	-	-	-
Aflac	35.27	-1.35	57.18	23.07	2.87	8.49	25306.5
AirProd♦	221.91	-0.34	257.01	167.43	1.96	27.81	49009.85
Alexion	103.56	-0.35	137.52	72.67	-	10.32	23000.68
Allergan♦	188.55	-1.19	202.22	114.27	1.47	-12.55	62033
Allstate	98.93	-0.82	125.92	64.13	1.90	7.52	31350.68
Alphabet	1309.58	-7.74	1530.74	1008.87	-	28.41	392940.06
Altria	38.03	0.12	54.00	30.95	8.09	-57.94	70673.74
Amazon	2316.42	30.38	2475	1626.03	-	107.37	1154793.33
AmerAir	9.57	-1.08	34.99	9.09	3.92	2.69	4044.99
AmerExpr♦	85.95	-2.37	138.13	67.00	1.79	11.47	69187.3
AmerIntGrp	23.48	-0.42	58.66	16.07	5.11	6.79	20507.95
AmerTower	232.11	-2.09	260.43	174.32	1.53	58.39	102895.86
Amgen	228.57	-2.41	244.99	166.30	2.38	18.93	134344.88
Anadarko	72.77	0.56	76.23	40.40	1.50	-63.37	36563.54
Anthem	266.13	-3.44	312.48	171.03	1.13	15.37	67095.66
Aon Cp	176.75	-1.46	238.19	143.93	0.91	29.59	40843.83
Apple	291.51	2.44	327.85	170.27	0.98	24.48	1275496.17
ArcherDan	34.53	-0.59	47.20	28.92	3.80	15.09	19240.39
AT&T	29.29	-0.61	39.70	26.08	6.56	16.53	210393.16
AutomData	142.86	2.44	182.32	103.11	2.15	26.92	61680.41
Avago Tech	259.30	-0.40	331.58	155.67	4.07	45.56	103665.9
BakerHu	22.08	0.09	31.26	20.09	3.16	99.04	11412.93
BankAm	22.48	-0.60	35.72	17.95	2.75	8.72	196106.68
Baxter	87.52	-0.32	95.19	69.10	0.91	48.36	44533.35
BB & T	54.24	0.75	55.66	40.68	3.12	14.78	41564.3
BectonDick	252.99	1.12	286.72	197.75	1.15	97.76	68602.74
BerkshHat	265740.29	-8234.71	347400	239440	-	5.69	185785.15
Biogen	294.86	1.77	374.99	215.78	-	10.01	48117.46
BkNYMeln	35.17	-0.84	51.60	26.40	3.15	8.32	31122.83
BlackRock	477.27	-6.89	576.81	323.98	2.59	17.90	73624.29
Boeing	126.93	-6.44	391.00	89.00	6.07	-120.87	71629.82
BrisMySq	59.90	-0.36	68.34	42.48	2.63	31.78	135224.9
CapOne	61.17	-0.41	107.59	38.00	2.45	5.92	27980.46
CardinalHlth	46.94	-0.49	60.69	39.05	3.83	-3.49	13694.86
Carnival	13.99	0.06	55.37	7.80	13.73	3.37	7381.53
Caterpillar	106.75	-4.14	150.55	87.50	3.32	10.60	57774.59
Celgene	108.24	0.11	110.70	58.59	-	12.71	77035.98
CharlesSch	35.49	-0.96	51.65	28.00	1.82	12.99	45685.42
Charter Comms	516.61	6.97	546.54	345.67	-	73.96	120987.79
Chevron Corp	88.65	-0.79	127.00	51.60	5.03	61.40	165507.66
Chubb	99.50	-2.09	167.74	87.35	2.81	10.93	44910.04
Cigna	183.08	-4.01	224.64	118.50	0.02	14.53	68091.02
Cisco	40.93	0.01	58.26	32.40	3.22	16.90	173579.22
Citigroup	44.10	-1.42	83.11	32.00	4.08	5.85	92530.96
CME Grp	172.73	-0.93	225.36	131.80	1.63	31.17	61917.85
Coca-Cola	44.76	-0.84	60.13	36.27	3.35	23.06	192239.34
Cognizant	55.64	-0.86	72.97	40.01	1.35	18.04	30104.33
ColgtPlm♦	69.60	1.07	77.41	58.49	2.30	26.99	59510.07
Comcast	35.99	-1.00	47.74	31.71	2.19	13.56	163901.36
ConocPhil	39.08	-0.06	67.13	20.84	3.20	6.51	42086.81
Corning	20.17	-0.49	34.26	17.44	3.72	20.10	15382.05
Costco	302.82	0.90	325.26	233.05	0.83	36.55	133719.24
CrownCstl	154.12	-2.29	168.75	114.18	2.78	91.83	64229.43
CSX	63.14	-1.86	80.73	46.81	1.43	16.15	48331.52
CVS	59.60	-0.10	77.03	51.72	3.15	12.51	77727.79
Danaher	160.52	-0.25	170.64	119.60	0.40	52.52	111865.61
Deere♦	130.82	-7.37	181.99	106.14	2.19	13.56	41027.77
Delphi	9.20	-0.36	23.55	5.39	-	51.64	791.86
Delta	22.01	-2.11	63.44	19.10	6.41	3.22	14038.55
Devon Energy	10.80	-0.35	32.00	4.70	3.04	-54.85	4133.63
DiscFinServ	40.74	-0.63	92.98	23.25	4.06	4.57	12478.69
Disney	101.67	-3.83	153.41	79.07	1.62	19.43	183558.95
DominRes	75.06	-0.55	90.89	57.79	4.58	49.42	62900.3
DowDupont	30.52	-0.65	48.38	30.06	6.73	-37.30	68559.76
DukeEner	81.69	-0.95	103.79	62.13	4.30	17.18	59961.48
Eaton	78.10	-3.97	105.78	56.42	3.60	13.79	31240
eBay	39.61	0.36	42.00	26.02	1.33	20.11	27757.29
Ecolab	189.43	-0.58	211.24	124.60	0.92	37.90	54585.93
Emerson	52.73	-1.06	78.38	37.75	3.75	14.10	31504.87
EOG Res	44.91	0.34	96.25	27.00	2.12	10.17	26137.18
EquityResTP	60.98	-1.34	89.55	49.62	3.49	25.01	22689.04
Exelon	35.04	-0.76	51.18	29.28	3.88	12.42	34126.5
ExpScripts	92.33	-3.47	101.73	66.93	-	11.10	52061.19
ExxonMb	43.51	0.37	78.50	30.11	7.83	12.55	184066.03
Facebook	203.73	1.46	224.20	137.10	-	33.79	489879.35
Fedex	115.54	-2.66	190.58	88.69	2.16	343.78	30184.8
FordMtr	4.82	-0.11	10.56	3.96	12.56	11.94	18808.29
Franklin	17.96	-0.07	35.77	14.91	5.48	7.63	8895.7
GenDyn♦	123.88	-3.93	193.76	100.55	3.02	11.03	35535.34
GenElectric	6.18	-0.32	13.26	5.90	0.61	-659.00	54057.03
GenMills	59.88	0.30	61.66	46.59	3.18	17.69	36295.6
GenMotors	20.35	-0.56	41.90	14.33	7.53	3.29	29141.74
GileadSci	79.33	-0.62	85.97	60.89	2.98	20.05	99877.67
GoldmSchs	172.26	-4.84	250.46	130.85	2.26	8.74	59235.69
Halliburton	9.59	-0.17	28.18	4.25	7.04	-7.93	8413.09
HCA Hold	103.39	-1.47	151.97	58.38	1.45	10.95	34994.29
Hew-Pack	14.75	0.04	23.93	12.54	4.20	7.75	21081.87
HiltonWwde	70.06	-1.97	115.48	44.30	0.80	24.58	19418.01
HomeDep	219.03	0.46	247.36	140.63	2.34	22.68	235263.66
Honywell	134.16	-3.09	184.06	101.08	2.35	17.01	95602.39
HumanaInc	369.41	-2.83	392.58	208.25	0.56	19.60	48838.24
IBM	120.31	-1.56	158.75	90.56	5.01	12.14	106822.28
IllinoisTool	157.27	-2.19	190.85	115.94	2.47	21.67	49934.39
Illumina	308.50	2.62	380.76	196.78	-	48.82	45292.2
Intcntl Exch	89.98	1.31	101.93	63.51	1.15	28.06	49236.28
Intel	57.35	-0.12	69.29	42.86	2.06	12.99	242819.9
Intuit	265.87	4.74	306.89	187.68	0.71	45.66	69255.03
John&John	147.72	-0.57	157.00	109.16	2.38	27.98	389185.73
JohnsonCn	27.76	-0.11	44.65	22.78	3.51	21.93	21206.13
JPMrgnCh	90.95	-2.31	141.10	76.91	3.51	9.05	277067.31
Kimb-Clark	137.12	0.34	149.23	110.66	2.82	23.44	46695.82
KinderM	14.61	0.05	22.58	9.42	6.10	16.23	33031.05
Kraft Heinz	28.79	-0.59	33.43	19.99	5.21	19.43	35174.38
Kroger	32.39	0.43	36.84	20.70	1.72	17.13	25192.03
L Brands	11.77	-0.23	28.02	8.00	12.23	9.36	3254.8
LasVegasSd	44.67	-0.94	74.29	33.30	6.46	13.61	34117.26
LibertyGbl	22.34	0.06	28.62	15.24	-	-34.63	4056.24
Lilly (E)	152.30	-1.34	164.90	101.36	1.59	32.75	145752.17
Lockheed	375.62	-7.85	442.53	266.11	2.25	18.25	105337.11
Lowes♦	105.71	1.25	126.73	60.00	1.90	20.43	79805.62
Lyondell	53.04	-2.13	98.91	33.71	7.34	5.89	17693.42
Marathon Ptl	30.04	0.80	69.65	15.26	6.62	8.07	19511.1
Marsh&M♦	99.24	2.14	119.88	74.34	1.64	31.04	50026.49
MasterCard	266.65	-2.09	347.25	199.99	0.46	35.82	264794.31
McDonald's	180.72	-1.95	221.93	124.23	2.59	23.53	134364.34
McKesson	135.22	0.52	172.18	112.60	1.18	-41.28	23924.53
Medtronic	95.04	-0.10	122.15	72.13	2.10	25.60	127369.39
Merck	76.86	-0.82	92.64	65.25	2.89	21.30	194924.94
Metlife	33.58	-1.10	53.28	22.85	4.86	5.91	30527.8
Microsoft	177.72	3.15	190.70	119.01	1.00	33.02	1347744.17
Mnstr Bvrg	59.16	-0.36	70.52	50.06	-	31.08	31150.54
MondelezInt	50.15	-0.55	59.96	41.19	2.04	20.18	71587.32
Monsanto	127.95	0.02	127.97	114.19	1.64	23.62	56462.29
MorganStly	37.26	-1.14	57.57	27.20	3.27	7.66	58704.96
MylanNV	16.06	-0.07	28.46	12.75	-	570.85	8289.81
Netflix	427.71	12.44	449.52	252.28	-	110.45	188108.58
NextEraE	226.56	-0.49	283.35	174.80	2.07	31.14	110889.8
Nike	85.13	-0.41	105.62	60.00	1.02	31.00	105562.69
NorfolkS	165.91	-4.82	219.88	112.62	2.03	17.26	42502.68
Northrop	320.71	-7.35	385.01	263.31	1.51	25.87	53463.23
NXP	94.16	-1.34	139.59	58.41	1.24	118.15	26270.75
Occid Pet	14.66	-0.58	60.73	9.00	20.08	-13.03	13194.36
Oracle	51.39	-0.41	60.50	39.71	1.82	16.83	162046.91
Pepsico	130.28	0.14	147.20	101.42	2.73	26.72	180763.56
Perrigo	51.72	-0.96	63.86	40.01	1.49	51.55	7040.47
Pfizer	37.73	0.09	44.56	27.88	3.58	14.02	209317.97
Phillips66	70.16	3.80	119.92	40.04	4.68	11.05	30829.32
PhilMorris	72.20	-1.08	90.17	56.01	6.00	16.70	112424.75
PNCFin	99.56	-3.41	161.79	79.41	3.96	9.32	42684.04
PPG Inds	85.91	-2.09	134.36	69.77	2.16	17.55	20268.18
Praxair	164.50	-0.99	169.75	140.00	2.08	42.03	47306.22
Priceline	1905.64	-1.38	2067.99	1612.41	-	17.15	92937.2
ProctGmbl	116.24	-0.58	128.09	94.34	2.38	70.44	287768.7
Prudntl	57.52	-2.03	103.85	38.62	6.52	6.07	22778.47
PublStor	181.71	-2.66	266.76	155.37	4.13	26.58	31760.72
Qualcomm	75.64	0.00	96.17	58.00	3.07	22.92	85089.66
Raytheon	116.96	-5.47	233.48	103.00	2.98	10.60	32566.46
Regen Pharm	540.50	15.00	574.32	271.37	-	31.23	59818.92
S&P Global	287.54	1.48	312.94	186.06	0.74	35.66	69279.7
Salesforce	160.59	4.22	195.72	115.29	-	1136.21	143728.05
Schlmbrg	15.64	-0.12	41.81	11.87	11.99	-2.28	21698.45
Sempra Energy	123.44	3.51	161.87	88.00	2.94	21.48	36092.93
Shrwin-Will	522.17	-4.27	599.95	325.43	0.81	33.17	47413.04
SimonProp	61.35	-1.85	180.06	42.25	12.69	9.61	18749.13
SouthCpr	31.96	0.20	44.82	23.43	4.69	17.75	24706.96
Starbucks	71.72	-2.07	99.72	50.02	1.95	25.08	83790.48
StateSt	57.94	-1.14	85.89	42.10	3.20	11.49	20392.35
Stryker	179.13	-1.49	226.30	124.54	1.12	34.86	67142.98
Sychrony Fin	18.04	-0.47	38.18	12.15	4.47	3.46	10530.09
T-MobileUS	87.39	1.19	101.35	63.50	-	23.19	107882.06
Target	110.60	2.37	130.24	70.03	2.22	18.51	55281.04
TE Connect	68.77	-1.81	101.00	48.62	2.48	15.67	22948.75
Tesla Mtrs	739.92	38.60	968.99	176.99	-	-160.40	137159.79
TexasInstr	109.05	-0.66	135.70	93.09	2.76	22.20	100083.11
TheTrvelers	95.49	-0.56	155.09	76.99	3.17	10.27	24143.29
ThrmoFshr	327.69	-2.13	346.89	250.21	0.22	38.11	119946.72
TimeWrnr	98.77	0.82	103.89	85.88	1.54	15.09	77269.69
TJX Cos	47.07	-1.18	64.95	32.72	1.73	19.31	56381.86
UnionPac	153.26	-3.38	188.96	105.08	2.26	19.51	103997.34
UPS B	90.30	-1.60	125.31	82.00	3.99	18.85	63418.43
USBancorp	34.15	-0.79	61.11	28.59	4.34	8.76	51951.07
UtdHlthcre	284.36	-0.15	306.72	187.72	1.37	21.16	269410.1
UtdTech	86.01	-5.36	158.44	69.02	3.19	14.36	74498.84
ValeroEngy	61.22	2.46	101.99	31.00	5.76	11.00	24959.31
Verizon	56.08	-0.76	62.22	48.84	4.07	12.86	232038.09
VertexPharm	262.15	7.25	277.80	164.07	-	31.49	67940.68
VF Cp	54.86	-0.57	100.25	45.07	3.30	17.68	21654.35
ViacomCBS	16.02	-0.44	53.71	10.10	4.57	3.22	9014.72
Visa Inc	175.19	-0.39	214.17	133.93	0.56	34.10	298869.89
Walgreen	42.42	0.76	64.50	39.41	4.06	10.83	37211.68
WalMartSto	123.58	0.66	133.38	98.85	1.62	25.27	350188.88
WellsFargo	26.93	-0.66	54.75	25.11	6.68	7.09	110127.49
Williams Cos	18.88	0.33	29.06	8.41	7.55	28.35	22897.71
Yum!Brnds	83.20	-0.61	119.72	54.95	1.89	21.43	25034.88
Venezuela (VEF)							
Bco de Vnzla	7995	-3.00	9000	250.00	454.77	-	165.36
Bco Provncl	430000	5000	469999.99	20000	-	11.22	262.97
Mrcntl Srvcs	520000	10000	520000	39000	0.01	4.59	179.55

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
LibertyGbl	22.34	22.28	0.06	0.27	3.29	17.3	41.39
Fanuc	17160.00	17830.00	-670.00	-3.76	2305.00	15.5	14.68
ImpOil	21.67	21.82	-0.15	-0.69	2.74	14.5	27.75
MediaTek	399.50	404.00	-4.50	-1.11	48.50	13.8	19.61
OilNatGas	76.55	79.90	-3.35	-4.19	9.20	13.7	9.59
Marathon Ptl	30.04	29.24	0.80	2.74	3.59	13.6	50.75
Delphi	9.20	9.56	-0.36	-3.77	0.92	11.1	40.46
CanNatRs	21.79	21.85	-0.06	-0.27	2.11	10.7	15.92
[illegible]							

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 %
JardnMt US$	43.92	43.96	-0.04	-0.09	-6.02	-12.1	-10.29
UPS B	90.30	91.90	-1.60	-1.74	-12.25	-11.9	0.40
PPG Inds	85.91	88.00	-2.09	-2.38	-10.09	-10.5	6.88
Hind Unilevr	2082.65	2195.00	-112.35	-5.12	-234.85	-10.1	-3.32
CardinalHlth	46.94	47.42	-0.49	-1.02	-5.00	-9.6	0.94
RylDShlA	1265.40	1231.60	33.80	2.74	-133.20	-9.5	-99.01
GenMotors	20.35	20.90	-0.56	-2.66	-2.11	-9.4	12.92
Fedex	115.54	118.20	-2.66	-2.25	-11.75	-9.2	5.86
[illegible]							

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

May 04	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	110.22	5.45	1.38	1.38	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Brazil	01/22	12.50	BB-	Ba2	BB-	110.23	5.94	0.47	0.47	5.69
[illegible]										

BONDS: GLOBAL INVESTMENT GRADE

May 04	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
Morgan Stanley	01/28	4.00	BBB+	A3	A	103.19	3.52	0.02	0.02	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	109.59	3.59	0.04	0.04	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A	122.48	3.50	0.08	0.08	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	123.27	3.55	0.00	0.00	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	121.43	3.83	0.02	0.02	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.21	5.04	0.02	0.02	-
[illegible]										

INTEREST RATES: OFFICIAL

[illegible]

INTEREST RATES: MARKET

[illegible]

BOND INDICES

[illegible]

VOLATILITY INDICES

[illegible]

BONDS: BENCHMARK GOVERNMENT

[illegible]

GILTS: UK CASH MARKET

[illegible]

GILTS: UK FTSE ACTUARIES INDICES

[illegible]

COMMODITIES

[illegible]

BONDS: INDEX-LINKED

[illegible]

BONDS: TEN YEAR GOVT SPREADS

[illegible]

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

ARTS

Ghost in the machine reveals scary truths

South African artist William Kentridge's latest work is a short film that uses a range of 'pre-cinematic' techniques. He talks to Jan Dalley

Above: Katlego Letsholonyana in 'Mayakovsky: A Tragedy'. Left: William Kentridge

Courtesy of The Centre for the Less Good Idea; Stella Olivier

Over a crystal WhatsApp line to Johannesburg, William Kentridge explains to me the principle of Pepper's Ghost. As you may know (I didn't), it's an optical illusion that creates a ghostly presence on a stage, popular in 19th-century theatre for gothic phantasmagoria, magic shows and illusionist effects, but still in use today in, for instance, stadium rock concerts. And yes, it really is done with mirrors. Even today's teleprompters are effectively worked by means of Pepper's Ghost.

It's no surprise to learn that the great South African artist, maestro of multimedia effects, should be thanking Pepper for some of the magic worked in his short film *Mayakovsky: A Tragedy*, which will be available online from tomorrow to support the Coronet Theatre in London's Notting Hill. In this ludic version of the Russian poet's 1913 one-man play, Kentridge uses a single sonorous-voiced black actor with a range of techniques — "pre-cinematic techniques", as he points out, such as graphics, shadow puppetry and animation — to deliver the richly layered, high-energy performance.

Pepper's Ghost has more than a one-time walk-on. At the Centre for the Less Good Idea, an arts centre in downtown Johannesburg that Kentridge established four years ago, where performers and creators from dancers to cinematographers can create projects and performances, the Ghost is a running theme. For the seventh in their seasonal programmes, Kentridge explains, "We decided we'd work with found texts, existing texts, and using that technique — and see what happened."

But first, I ask him to explain the beguiling title of his arts centre. "It's all about the energy that comes from unexpected collaborations," he tells me. "When people are creating a piece, they get the first idea, the 'good' idea. Then as you work on that, all kinds of different ideas appear on the periphery — the 'less good' ideas, if you like. They come to the fore and there's a new energy and interest there."

When it became clear that the centre's latest programme faced lockdown, Kentridge says, dozens of live projects were converted to film or online versions — "We had a whole online festival." And their Pepper's Ghost theme seemed to take on a new resonance: although the optical illusion, so magical on a live stage, loses some of its impact on film (we are so used to elaborate special screen effects we might hardly notice), the metaphorical echoes can't be lost. A shimmering chimera of a reality we can't quite grasp, of what might have been, is becoming a familiar sensation in lockdown.

And the technique is also perfect for the elusive, multi-layered work of Vladimir Mayakovsky. What, I ask Kentridge, attracts him to the radical Russian?

"Mayakovsky has been an interest since my student days, in the 1970s," he replies. "I knew the strange text of his *Tragedy*, which was written as a play, so I re-read it and rediscovered his particular way of looking and thinking about the world. He was perfect for the kind of anti-naturalist form that interests me. I had a form looking for a text and this was it."

And, of course, Mayakovsky's politics: always angrily at odds with the social order, even within revolutionary circles he could be an outlier. This spirit, and some of the brilliantly pointed, mocking graphics and animations projected through the Ghost, took me back to the stunning retrospective of Kentridge's apartheid-era work at the Zeitz Museum of Contemporary Art Africa in Cape Town earlier this year: a cornucopia of the finest protest art, savage, relevant, fearless and funny, using a broad range of techniques but always stemming from his astonishing draughtsmanship. It was balanced by a simultaneous exhibition at Cape Town's Norval Foundation of Kentridge's mature work, sculpture as assured, pacific, solid and serene as the former was edgy, transient and reactive.

Kentridge says Mayakovsky — who also worked through an era of fierce censorship — appealed because of the Russian's "different attempts to think about Utopianism in the arts. And the possibility of a transformed society. He was radical both in [artistic] form and in his wider thinking."

Mayakovsky's work also reflected a visual energy about the city which, says Kentridge, chimes strongly with Johannesburg at the moment, which he feels is on the edge of social chaos, "improvising all the time". Although he describes his own fortunate lockdown, at home with his family and at work in his garden studio, as "pure pleasure", he is vividly aware of the difficulty for others — especially "how one keeps a community of artists and performers during these very extreme times". The Centre for the Less Good Idea is asking its alumni to contribute films to "The Long Minute", one-minute Instagram films each day by film-makers, dancers, authors, musicians, and others: reassurance, as well as stimulation, a sense that a better future is not too far away.

> 'Mayakovsky has been an interest since my student days in the 1970s'

Meanwhile, in London's Coronet Inside Out programme, *Mayakovsky: A Tragedy* joins an online programme that includes work by Hanif Kureishi, Ben Okri, Hisham Matar and others. "I have very good memories of working with the Coronet," Kentridge says, "and I'm happy if this film cements the links between Johannesburg and London, and viewers across the world."

thecoronettheatre.com

Furious scrapings and seductive sounds

MUSIC

Bang on a Can Marathon
Streamed online
★★★☆☆

Richard Fairman

It is more than 30 years since Bang on a Can presented the first of its Marathons. The group's three founders — composers Michael Gordon, David Lang and Julia Wolfe — say they wanted to start building "a utopia", where boundaries in music would be broken down. They added, "It is also an act of resistance against the things that keep us apart."

Nobody could have foreseen how true that last statement would become in 2020. With the coronavirus lockdown keeping musicians and audiences far apart, the Bang on a Can Marathon went online — a six-hour parade of living composers presenting their music from their living rooms, the majority in the US, especially New York.

By comparison with the best of the live online music that has sprung up, this was more of a homemade affair. The three founder-composers acted as compères, which was fortunate as they could pick up the thread when internet connections dropped. More seriously, the sound quality proved variable from one source to the next.

What makes Bang on a Can important is the collective's open-mindedness, which has helped it bring to life a varied mass of new music over the years. This Marathon was no exception: a couple of premieres were prominent, the most up-to-the-minute being Ken Thomson's *Birds and Ambulances* for double bass, which takes its title from the sounds of New York during lockdown. There are no planes flying over Thomson's home on the flight path to La Guardia, so the music starts in near-silence, broken by siren noises and furious scrapings of the bow (ambulance engines?).

Like much live music online, this Marathon was restricted to solo instrumentalists, though sometimes working with electronic or pre-recorded backing. That made it easy to compare like with like in an overview of where American music (primarily) is now.

At home: Meredith Monk

Although the senior figures of American minimalism still cast a long shadow — violinist Tim Fain played an extract from Philip Glass's *Einstein on the Beach* and Steve Reich put in a celebrity appearance — it was the range of musical voices that made the biggest impact.

The most distinctive included David T. Little's *Hellhound*, in which a solo cello engaged in sometimes frenetic dialogue with a heavy metal backing. Anna Clyne's *Rapture*, opening with the sound of New York rain, played with multiple layers, a solo clarinet, a pre-recorded track, distortion and reverberation.

Meredith Monk, starriest of the composer-performers, sang and played with her 43-year-old turtle as her audience at home. Cassie Wieland's *Heart* seduced the ear with the sound of the hammer dulcimer. Martin Bresnick's *Ishi's Song* drew on ethnomusicological roots. There were virtuoso solos: from Thomson on saxophone in Shelley Washington's *Black Mary*, and from percussionist David Cossin, who brought hallucinatory beauty to another premiere, Molly Joyce's *Purity*.

Bang on a Can's archive is now live on its Canland website and includes a retrospective of the Marathons of the past: bangonacan.org; canland.org

THEATRE

A Separate Peace
The Remote Read
★★★☆☆

Sarah Hemming

A few weeks ago, watching a play meant leaving home, arriving at a theatre and settling into a seat, along with hundreds of people. Now, it's about logging on and watching, with slight apprehension, a clock tick down until the "curtain" rises.

Theatre, like everything, has changed. And yet it is remarkable how quickly artists have responded, finding the means first to stream pre-recorded shows, then to share newly written plays, then to perform shows in real time before an online audience. The best of these find new ways to forge that live connection at the heart of theatre.

Most profound to date has been Richard Nelson's brilliant, Chekhovian piece *What Do We Need to Talk About?*, performed by New York's Public Theater. Both set and performed on Zoom, it used the strange intimacy of online conversation to plug into recognisable hopes and fears.

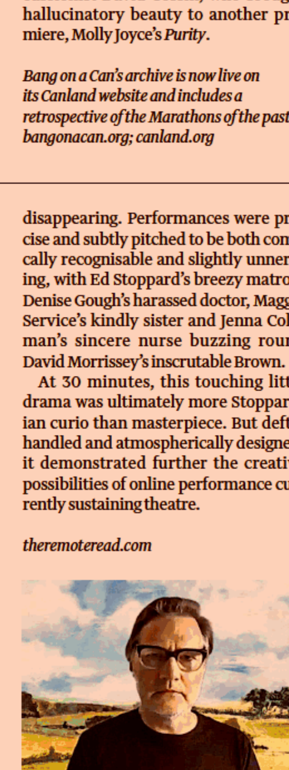
On Saturday, *A Separate Peace* brought a slightly different twist to the practice. Launching The Remote Read, a new series of live one-off play readings to raise money for charity, this star-studded revival of Tom Stoppard's 1966 play deployed the peculiar mix of presence and absence characterising online interaction to channel the drama's unsettling absurdity.

Stoppard's plot concerns John Brown, an apparently healthy individual who turns up at a private hospital and refuses to leave. A hotel won't do, he argues: he wants peace, he wants to be nursed and he has the money to pay for it. The staff are perplexed. What drives him? Is he on the run?

Originally a wry comment on social convention, in Sam Yates's online production the piece came over as a quietly topical meditation on mental health, isolation and the need for care. Yates and his design team amplified the play's sense of dislocation. The cast, collaborating remotely via Zoom, floated in four clinically white boxes on our screens, with characters appearing and disappearing. Performances were precise and subtly pitched to be both comically recognisable and slightly unnerving, with Ed Stoppard's breezy matron, Denise Gough's harassed doctor, Maggie Service's kindly sister and Jenna Coleman's sincere nurse buzzing round David Morrissey's inscrutable Brown.

At 30 minutes, this touching little drama was ultimately more Stoppardian curio than masterpiece. But deftly handled and atmospherically designed, it demonstrated further the creative possibilities of online performance currently sustaining theatre.

theremoteread.com



Absurdity: David Morrissey

FT BIG READ. CORONAVIRUS

It should have been a triumphant month for Vladimir Putin. Instead his popularity is slipping as Russia struggles to deal effectively with coronavirus and a disastrous oil price war further weakens the economy.

By Henry Foy

Pandemic tests Putin's power

The May 9 military parade was to have been an event of pure pomp and spectacle: a moment for Vladimir Putin to stand in the centre of Moscow's Red Square and bask in his unchallenged authority. Flanked on either side by his Chinese and French counterparts, Xi Jinping and Emmanuel Macron, the Russian president would have watched proudly as Russian soldiers marched past in the spring sunshine, their arms locked in salute and their faces turned to their commander-in-chief.

Instead, Mr Putin will lay flowers at a war memorial in the centre of an otherwise deserted Moscow, and make a video address to a quarantined, concerned and increasingly restless nation.

The postponed parade to mark the 75th anniversary of the Soviet Union's role in the second world war victory over Nazi Germany was envisaged as the most public event of a heavily-orchestrated spring schedule designed to cement the longevity of Mr Putin's 20-year reign.

Mr Xi would have shown the world the strength of Russia's new friendship with the world's pre-eminent rising superpower; Mr Macron's attendance would have demonstrated that despite sanctions against Moscow for its 2014 annexation of Crimea, Europe still needs its troublesome eastern partner.

The parade of tanks, missile launchers and soldiers was intended to be much more than just a historical commemoration. It was scheduled 17 days after a national ballot where Mr Putin had banked on winning widespread public support for constitutional changes that would allow him to extend his rule beyond 2024. That vote, too, has been postponed.

In the space of two months Covid-19 has laid waste to both his political agenda and the economic model that underpins his regime, turning 2020 from a year scripted to usher in another decade of Putin rule into one that could undermine his supremacy.

"It is pretty clear that this year has not gone to plan at all as far as Putin is concerned," says one foreign ambassador in Moscow. "The pandemic has had far more of an impact than he had hoped, and the economic fallout from all of this is going to be even bigger."

$165bn of savings depleted

The virus has infected more than 145,000 Russians and killed about 1,350, making the country the world's seventh most affected, according to data from Johns Hopkins University. Mr Putin's own prime minister, Mikhail Mishustin, stepped down temporarily on Thursday after contracting the virus.

It has also sparked a two-pronged economic shock that is expected to shrink Russia's gross domestic product by as much as 6 per cent this year, according to central bank forecasts. In addition to a six-week national lockdown and crippling quarantine measures that have suffocated domestic industry, the pandemic has contributed to a more than halving of the price of oil, imperilling the country's financial lifeblood.

With the Covid-19 caseload rising rapidly in recent weeks, the Russian leader's tone on the pandemic has shifted. Below: migrants wearing face masks rush to renew work and residence permits in St Petersburg early last month
FT montage

>145,000
Cases of Covid-19 across the country, with 1,350 deaths

6%
Fall in GDP this year, according to central bank forecasts. Alfa-Bank says incomes will fall 5% this year

$165bn
Warchest to protect the economy is being drained by as much as $300m a day

63%
Approval rating for Mr Putin — down from 69% in February — a six-year low

Profits from oil and gas sales provide around 50 per cent of Russia's consolidated budget revenue — about $130bn. Since oil prices plunged, partly due to Mr Putin's ill-fated decision to embark on a price war with Saudi Arabia to hurt US shale producers, a $165bn warchest built up to protect the economy is being drained by as much as $300m a day, according to government data. Russia's finance minister has warned that the government could burn through almost half its savings by the end of the year.

That imperative to prop up the budget means promised fiscal measures to support people and businesses affected by the pandemic and economic slowdown add up to just $40bn or 2.8 per cent of GDP; far less than the trillions of dollars pledged in other countries. Russian lawmakers in March voted to lift the country's state borrowing limits.

Mr Putin faces a multi-faceted crisis that has shaken his authority and the informal social contract that underpins his rule: to provide security and economic stability to voters in exchange for restrictions on their political freedoms.

Despite attempts to distance himself from the crisis by delegating difficult decisions to his regional governors, Mr Putin's approval rating has fallen to a six-year low. One measure of public trust in him is at 28 per cent — the lowest since 2006 — just 18 months before Russia's parliamentary elections.

"It is increasingly evident that Russia's highest political leadership underestimated the risks of Covid-19 and failed to contain the disease at the early stages," says Andrius Tursa, an analyst at political risk consultancy Teneo. "To divert potential criticism for mishandling the crisis, the Kremlin is using the regional governors as scapegoats . . . The effectiveness of such tactics, however, appears to be limited so far."

A healthy economy laid low

Throughout most of March, as the virus spread rapidly through other European countries, Russian officials insisted that the number of infections was low and Mr Putin left the issue to be dealt with by ministers, officials and aides.

On March 25, after visiting Moscow's main hospital for coronavirus infections, he said in a national address that Russia was "able to restrain both the wide and rapid spread of the disease".

Three weeks — and 42,000 new coronavirus cases later — in a speech to mark orthodox Easter, he remained upbeat. "The situation is totally under control," he said, boasting of Russia's "healthy, strong economy".

Only last week did Mr Putin's tone shift. In a televised address that extended the national lockdown to May 11, he admitted that "there is a hard and difficult path ahead . . . it will not be as fast as we would like. But you cannot race ahead, and risk going backwards."

"This is exactly what happens when you are constantly told about your successes, and any complaints or problems provoke only bitterness and irritation," says Tatyana Stanovaya, founder of R Politik, a Russia-focused political analysis firm. "To Putin, it seemed that they had achieved the impossible in the fight against coronavirus, and no one would have done it better."

The impact on the population is expected to be severe. Real incomes in Russia will fall by 5 per cent this year, Alfa-Bank economists have forecast. Incomes are already 7.5 per cent lower than in 2014, before Russia's invasion of Crimea prompted western sanctions against Moscow.

Alexei Kudrin, head of Russia's audit committee and a former finance minister, estimates that the crisis could see unemployment double to 10 per cent. Industrial output already slipped by 2.5 per cent in March and is set to plunge in April, as major factories, mines and plants struggle to operate within quarantine measures and without contractors who have been forced by the government to close down.

The lockdown measures and resulting lay-offs have already provoked protests. Police suppressed a rally in the southern city of Vladikavkaz as people fired from their jobs demanded more compensation than the one-off Rbs3,000 ($40) offered by the local authorities. Protests have also taken place online, with citizens posting thousands of anti-Putin comments at government locations on the Yandex.Maps mobile navigation app.

According to the Levada Center, Russia's sole pollster independent of the state, Mr Putin's approval rating fell to 63 per cent in March, down from 69 per cent in February. While exceptionally high for a European politician, Mr Putin has almost no political opponents, and it is well below the ratings in the high 80s he enjoyed between 2014 and 2018. The state-run VTsIOM found in a recent survey that just 28 per cent of respondents named Mr Putin when asked which politicians they trusted.

When asked last week about his handling of the pandemic, only 46 per cent told Levada researchers that they thought his decisions were correct. Thirty per cent said they thought his response was inadequate; 18 per cent that it was excessive.

"It is not so much the pandemic itself that affects [ratings], but the resulting economic problems," says Denis Volkov, Levada Center's deputy director. "People are afraid of losing their jobs, they are afraid of wage cuts, and they expect a fall in living standards. These fears are now the most important."

"In effect, the government has a few months to try to normalise the situation, before the discontent becomes serious," he adds.

Last month Mr Putin's spokesman Dmitry Peskov told reporters that he "generally and conceptually" disagreed with a statement that economic difficulties could provoke a political crisis in Russia. But a sharp rise in public anger could certainly hamper Mr Putin's bid to rewrite the constitution and grant himself the ability to run for two more six-year terms as president after 2024, when he would otherwise be forced to step down.

The process looked simple before the pandemic. A VTsIOM poll on March 11, when Russia had 28 coronavirus cases and no deaths, showed 64 per cent of voters supported the change. A poll by the same company on April 17 — midway through the lockdown — and with case numbers rising rapidly, showed support had dipped to 50 per cent.

"If the vote had taken place on time, the majority would have supported the amendments," says Mr Volkov. "With growing uncertainty, economic problems and — over time — discontent, people's desire to go and vote for amendments proposed by the government may decrease."

Responsibility debate

Russia now has one of the world's fastest growing Covid-19 caseloads. As France, Austria and other European countries have begun to lift some quarantine measures, Mr Putin has extended those operating in Russia by another fortnight.

Moscow mayor Sergei Sobyanin said on Saturday that according to testing data, 2 per cent of the capital's population was infected with Covid-19. That equates to more than 250,000 people — four times the number that the government has previously admitted are infected in the capital, raising doubts over the efficiency of the 4m tests that Russia's government says it has conducted nationwide.

'The Kremlin is using the regional governors as scapegoats to divert potential criticism for mishandling the crisis'

'With growing discontent, people's desire to go and vote for amendments proposed by Putin may decrease'

After the troops who had assembled for the May 9 parade were sent back to their barracks, the defence ministry admitted that more than 1,000 soldiers had tested positive for Covid-19. Video footage of their rehearsals shows the soldiers standing shoulder to shoulder.

China in April blamed hundreds of new cases on people returning from Russia, either across their shared land border or on flights. One flight to Shanghai on April 11 contained 51 infected people, Chinese officials said, a number that implies a larger proportion of Russians could be affected than the official data suggests.

The handling of the crisis has created wider friction between Moscow and Beijing, a relationship that Mr Putin has sought to promote as ties with the west have soured since 2014. In late January Russia was one of the first countries to close its border crossings with China as the virus spread from Wuhan to other parts of the country, but did not close its western borders with the EU until two months later.

"Moscow was late to shut down its border with the EU, exposing the obvious racism of the Russian elite: China was perceived as 'dangerous' while Europe was viewed as 'safe' despite huge numbers in Italy and Spain," says Alexander Gabuev, senior fellow at the Carnegie Moscow Center.

"As the number of cases imported from Russia grows, so is Chinese anger. Not only is Moscow hiding — or unable to detect — real numbers of infections, it can't control movement of sick people and the spread of Covid-19," he says. "This is likely to boost long-held feelings of Chinese superiority towards Russia and anti-Russian sentiments. In Russia, it's likely that the virus will reinforce deep-seated Sinophobia."

Worryingly for the Kremlin, infection data appears to show that the outbreak is spreading fastest in provincial cities and rural regions far from Moscow, which lack both the capital's medical provisions and financial firepower.

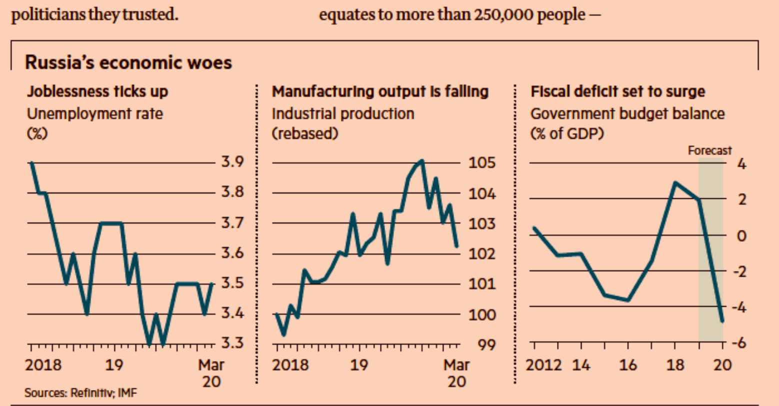
Mr Putin last week reiterated his position that local governors should take responsibility for their regions, and not rely on orders or resources from Moscow.

He also warned that even after the country as a whole sees a peak in infections "the situation may remain tense in certain regions . . . The threat will not disappear everywhere immediately".

That could result in a long, drawn-out recession and a stuttering recovery that will further crimp Russians' spending power, and could erode support for the ruling regime as parliamentary elections in September 2021 approach.

"We see that regarding [support for] Putin and his government as a whole there is a division in society between those who are active, urban and more modernised, and older people," says the Levada Center's Mr Volkov.

"I think that this divide will deepen."



FINANCIAL TIMES

'Without fear and without favour'

TUESDAY 5 MAY 2020

Bankrupt Lebanon's turn to the IMF is overdue

A bailout is the country's only option to refloat its sinking economy

After dithering and division, Lebanon's government has concluded the only way it can refloat its sinking economy is by going to the IMF. That would be just in time. While it is a shopworn adage that countries cannot go bankrupt, Lebanon palpably has. It has accumulated losses at its central bank, Banque du Liban, which the government estimates at $44bn — about equal to annual economic output, though this is shrinking so fast nobody can be sure — while the government reckons the banking sector, the erstwhile jewel in Lebanon's crown, has losses of $83bn.

The crisis long predates the coronavirus pandemic. The economy began juddering to a halt last October, when a civic uprising brought down the then government of sectarian oligarchs and superannuated warlords. The spark was an obtuse tax on WhatsApp phone calls. The reason was rage at a governing class that has looted the state since the end of the 1975-1990 civil war.

Put another way, 70 per cent of the assets of a bloated banking system were lent to an insolvent and kleptocratic state, which last month defaulted on its foreign debt. It seems astonishing it was able to defy gravity for so long. But it is explicable in terms of BdL policies. The central bank's governor since 1993, Riad Salameh, continued to attract dollars from Lebanon's diaspora and around the Middle East by offering ruinously high exchange rates. He called this "financial engineering". Some economists, including former central bankers, called it a Ponzi scheme.

Depositors in Lebanese banks, where 70 per cent of deposits were in dollars, are being denied access to their savings. They were rationed to withdrawing about $500 a month. That practically ceased with the providential excuse of bank closures because of the Covid-19 emergency. Billions were transferred abroad by the political and business elite before the crisis took hold, bankers say. Bank withdrawals or credit card payments are priced at the official rate of 1,507 Lebanese pounds to the dollar, which was last week worth an average 3,700 in the parallel market.

This divergence is fuelling inflation. Unrest is resuming, despite the virus lockdown. The government, selected by the same old sectarian power brokers but which includes talented technocrats, has been edging closer to the IMF since February, while waiting for its political overlords to conclude there is no alternative. Even Hizbollah, the Iran-backed Shia politico-military movement that acts as a state-above-the-state and — with its Christian, Shia and Sunni allies — has a parliamentary majority, seems to have realised only the IMF could unlock the finance Lebanon needs to survive and rebuild.

Three previous French-led bailouts contained essentially the same to-do list of reforms that never happened. The last, $11bn soft-loan package agreed in Paris in 2018 remains locked up for the same reason, while the Saudi-led Sunni powers now refuse to support what they see as an Iranian proxy.

There is no alternative. The government's latest rescue plan, approved late last week, understates Lebanon's external financing needs, even allowing for debt restructuring. It also dodges to what extent it will "bail in" bank depositors — confiscating wealth to recapitalise a bust system. This is explosive. Last week's firebombing of banks in north Lebanon is a portent.

"By failing to tackle the core imbalances of the Lebanese economy, the scenario of no or very limited external support [without an IMF programme] would considerably increase the risks of a complete collapse", the government's 53-page blueprint warns. Hopefully its ultimate masters think so too.

The challenge of moving workers on to the land

Replacing migrant labourers is proving trickier than expected

As strawberries, lettuces and broccoli ripen in the spring sun, coronavirus poses an insidious threat: that there might not be enough people to pick them. Amid virus lockdowns and travel bans, UK farmers are scrambling to fill about 70,000 seasonal picking jobs normally done largely by migrant workers from eastern Europe. The solution might seem obvious: redeploy furloughed or laid-off employees from other sectors. The UK government's "Pick for Britain" recruitment drive is redolent of wartime spirit. Unfortunately, such ideas are proving difficult to implement in practice.

Britain is far from alone. Across Europe, few countries today use their own nationals to pick produce; most rely on migrants. Until the end of May, France is short of about 200,000 workers, and Spain up to 80,000. Italy needs 250,000 in April and May. Germany employs 300,000 over the season.

Substituting domestic labour is proving challenging. The FT reported that as of late last week, only 150 people had taken up jobs picking fruit and vegetables through a UK agency scheme that had received 50,000 expressions of interest. Some workers — especially furloughed employees hoping to return to work before too long — are reluctant to take contracts that might run to November, or balk at demands to live for months on farms far from home. Some applicants say they are eager to work but receiving no offers; some suggest the farming industry prefers cheap migrant labour or has evolved a structure that is built around it.

Farmers say they are being flexible, and that some experienced workers — who are mostly migrants — are needed to lead teams of novices. The British Growers Association says that alongside national schemes some farms have also been recruiting locally and farmers believe they have, for now, enough commitments from domestic and foreign workers to fulfil most of their labour requirements. But it is unclear whether that can be sustained throughout the season, if furloughed workers return to their jobs or other temporary workers drop out.

With seasonal farm work sometimes marred by poor working conditions compared to modern slavery, another danger is that farms become infection hotspots. Temporary accommodation such as caravans makes social distancing hard. After the Berlin government granted exemptions to allow Romanian farm labourers to fly in, Germans were shocked by images of crowded night buses ferrying workers to a cramped airport departures hall.

Ensuring fresh produce can be gathered in safely will require exceptional flexibility. To maximise chances of finding sufficient domestic staff, governments need to allow both furloughed workers and the unemployed to work on the land without losing their furlough pay or jobless benefits. Farmers will swiftly need to adapt working practices to accommodate larger numbers of less experienced and productive staff, with higher turnover rates. In their own interest — and that of society at large — they must find ways to shield temporary workers from infection.

All this will push up costs, and there are limits to how much can be passed on to consumers. Farmers in some countries are already eligible for small business support schemes, but governments may have to do more. Some will flinch from bailing out an industry that has received billions in subsidies from the EU's Common Agricultural Policy. Yet here, as elsewhere, the long-term costs of not doing so may be higher. Allowing crops to spoil and farms to fold could create supply problems next year and push up food prices — just as economies are struggling to recover.

Letters

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Vaccination against measles must be allowed to continue

Nearly 120m children in 40 countries (FT View, May 4) are at risk of missing their measles and rubella shots this year as preventive campaigns and outbreak response are postponed due to the Covid-19 pandemic response. Many of these countries are in conflict and the children there are almost all undernourished, as are their mothers — a condition that nearly guarantees death if infected by measles. Nearly a million of these will not be vaccinated in the war-affected regions of Ituri and North Kivu in eastern Democratic Republic of Congo alone — a zone where there was a measles epidemic less than a year ago, killing over 6,000 children in a matter of months.

This estimate says nothing of the children who would have received their shots as part of the routine services in their country. Strict measures such as lockdowns and travel restrictions have left primary care centres in many of the poorest areas vacant and outreach services have stopped. In some countries, the Covid-19 preventive measures have been applied with violence and brutality — used as an opportunity for cracking down on hapless citizens who are unable to take their infants for immunisation.

Death or even severe illness rates as a result of the Covid-19 virus are vanishingly small among children — anywhere in the world. In contrast, measles ravages whole cohorts of small children, spiking up the mortality rate in a matter of days. And measles is an ever present threat.

We need to have a rational approach in poorer countries balancing the risks of Covid-19 against those of life-threatening issues such as poor measles vaccination coverage, which may leave whole cohorts of children unprotected for life.

Professor Debarati Guha-Sapir
Centre for Research on the Epidemiology of Disasters, University of Louvain, Brussels, Belgium

Crisis offers chance for thorough aviation reform

Your editorial (FT View, May 1) rightly argues that any rescue of the aviation industry should come with strict conditions attached. But that should be the beginning of a fundamental reshaping of the industry and the regulatory regimes that govern it, not the end of the matter.

Aviation, and its policymakers and regulators, have had a catastrophic year. The Boeing 737 Max was grounded worldwide; the industry's CO_2 emissions reached a new record; airlines collapsed, requiring taxpayers to fund repatriation programmes; the airports national policy statement was ruled unlawful; and the industry has been the primary global transmitting vector for the Covid-19 virus.

Each of these events is exceptionally serious. They have had substantial financial, environmental and health costs. Two deeply ingrained problems underpin and link these events. First, the industry has ceased to take adequate responsibility for its impacts on society. Aviation enjoys immense legal, fiscal, public funding and other privileges. The past 12 months suggests it takes these privileges for granted and its responsibilities too lightly.

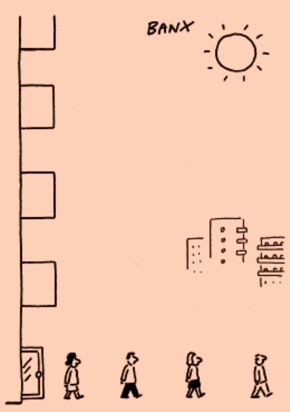
Secondly, aviation policies and regulatory arrangements are inadequate given the scale of the industry's impacts and risks involved. This is symptomatic of a relationship between government and the industry that has become too cosy. The government should prioritise its responsibilities for regulating aviation, not its role as the industry's cheerleader.

The starting point should be a thorough review of aviation's role in modern society, the privileges it enjoys, the costs it imposes, and the regulatory mechanisms by which it is overseen.

Any review will have to strike a balance between the benefits aviation brings and its environmental and other costs. That balance must be based on an honest assessment of aviation's contribution and its impacts, not the spin the industry routinely deploys. The industry is no longer the engine of economic growth and trade it likes to pretend. Air transport accounts for less than 0.7 per cent of UK gross domestic product and only 0.4 per cent of jobs. And today's industry overwhelmingly provides leisure, not trade, services: over 80 per cent of UK flights are for leisure purposes.

The aviation industry of the future must think, behave and be regulated very differently from the one that has failed so comprehensively in 2019/20.

Charles Lloyd
Chair, Aviation Communities Forum
Tonbridge, Kent, UK



MMT will make taxes as well as prices unstable

Thank you for the debate between Edward Chancellor and Stephanie Kelton in your pages (Opinion, May 4). It was a lively and enjoyable read.

On this topic I stand with Mr Chancellor. I agree with all he says about inflation but I think there are other, more microeconomic, arguments against modern monetary theory, which may be at least as important as the inflation argument Mr Chancellor gives.

Opponents of MMT criticise what they see as the inflationary consequences of MMT. Advocates of MMT often respond that if inflation rises then taxes can be raised to control inflation. But on whom will those taxes fall? And how will those taxes affect the economic activity of those groups?

Will they fall on the politically unpopular or on those that will somehow control inflation? Will the landing zone for taxes change with political whim? Will taxes rise and fall with the government's success, or otherwise, in controlling inflation?

Surely the resulting unpredictability in taxation would raise the cost of capital, reduce investment and reduce output in any sector uncertain of its taxation prospects. Given that governments change stripe periodically, that would be all sectors.

This effect in itself is enough to dissuade me from supporting MMT, even before the effects of inflation, the likely reduction in productivity following the end of any kind of government budget constraint, currency effects and second round effects on borrowing rates of this soft money policy. MMT fails, in my view not only because it creates price instability and inflation, but also tax instability, to everyone's cost.

Gareth Sutcliffe
Harpenden, Hertfordshire, UK

Fightback against Covid-19 in war zones is perilous

Gideon Rachman, in "The pandemic could bring a global ceasefire" (Opinion, 27 April) is correct that Covid-19's impact on conflict will be both profound and play out in unexpected ways.

But without peacebuilding, such tentative gains could be swept away.

Even UN secretary-general António Guterres, following his call for a global ceasefire, recognised that rhetoric isn't yet matched by reality.

In Yemen, the fighting is ceaseless, while other conflicts are escalating. Yes, we should strive for ceasefires, but we also need to take account of two big factors. First, peace isn't just the absence of war. A ceasefire stops the fighting, at least for a time. But unless rival parties can address the root causes of that violence, the ceasefire won't hold and transform into durable peace. Second, Covid-19 seems to hit very poor, minority and marginalised populations hardest, targeting the very social fractures that can drive people to see violence as a solution.

Violence spreads like a virus, but the remedies are also similar. Break the chain of transmission. Seek the source of the infection. Address those root causes. Bring people together to work towards a solution.

Peacebuilding is key to not only ensuring that Mr Guterres' global ceasefire takes but also any effective fightback against Covid-19 in fragile and conflict-affected states.

Michael Young
CEO, International Alert,
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New Zealand has charms, but what about Greece?

Locked down staff eager for a new Eden need not go as far as Simon Kuper suggests in his article 'Is this New Zealand's moment?' (FT Magazine, May 2).

As Covid-19 mothballs our global talent hubs, mobile entrepreneurs in search of new business bolt-holes could whisk their staff to that multilingual cosmopolis, Greece, whose island nations are every bit as beautiful and far less remote.

Not only are they infection free, rich in high value talent and on the same wavelength and time zones as our own, they are also spiritual homes to a high value diaspora looking for a reason to return.

New Zealand has its charms, but when the world is upside down, as Mr Kuper notes, it's best to see things from the inside out.

Nick Hadjinikos
Kallinos Communications,
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EU state aid would comply with treaty provisions

With a major side consequence of the Covid-19 crisis across the EU relating to the relaxation of the typically rigid principles impeding state aid to companies ("EU members clash over state aid rules", May 2), further contention may arise in the event that member states consider exceeding even the more liberal parameters of the temporary framework document for such aid approved by the commission.

A coronavirus crisis reaction rationale would grant carte blanche to member states in this area due to the particular wording of Article 107 of the consolidated version of the Treaty of the Functioning of the European Union (as fortified under the Lisbon treaty) which indicates that state aid can be compatible with the internal market if executed "to make good the damage caused by natural disasters or exceptional occurrences", or also "to remedy a serious disturbance in the economy of a member state".

It is nearly impossible to argue that wide-reaching, extensive state aid relief programmes of an unprecedented scale could not now be applied as they would be compatible with the letter and the spirit of the above treaty provisions. It may be deemed reasonable to argue that an unchecked suspension of state aid rules could be allowable under the treaty wording until at least next year and perhaps even beyond into 2022.

John Kennedy
Dun Laoghaire-Rathdown County Council,
Dun Laoghaire, Ireland

One politician's choice of wall art tells a story

In "Zoom with a view" (FT Weekend, May 2), your writer Sebastian Payne alluded to "generic geometric paintings" showing over MP Ed Davey's shoulder. Didn't he recognise them as copies of Paul Klee, the Bauhaus artist who the FT deliciously informed readers in 2012 was obsessed with innards and "favoured risotto with steamed calf's heart, sour liver and lung ragout"?

Lucy Brandes
Leiston, Suffolk, UK

Correction

● The German constitutional court postponed a ruling on the legality of the European Central Bank's quantitative easing programme before the ECB's pandemic emergency purchase programme was announced. Wolfgang Münchau's column on May 4 incorrectly stated the German court delayed the case to include the PEPP.

When the courts are standing between us and decent haircuts

Chicago Notebook

by Patti Waldmeir

Like everyone on Earth, Americans are making up the rules of the coronavirus era as we go along. But because we are Americans, we want courts to write the rules.

Should police be told whether I am Covid-19 positive, before they respond to my emergency call (or don't)? A judge in Cook County, Illinois, where I live, ruled on Friday that they cannot be given the information, but the battle may go on.

Will my kids go back to college in the autumn? That could well depend on how much their universities fear being sued if returning students fall ill from the virus. Will I be refunded some of the $100,000 a year that I spend on their education, since they were sent home midterm? There's a lawsuit for that one too. And the state of Missouri is even suing China, on the grounds that it started the pandemic. Can I use that technique to get Beijing to refund the cost of my coronavirus-cancelled summer holiday? Don't count on it.

The local response to the pandemic itself is in court: an Illinois Republican lawmaker is suing to lift governor JB Pritzker's stay-at-home order, one of the strictest in the US, on the grounds that the Democratic governor abused his powers by extending it to May 30. A judge in rural southern Illinois has already ruled against Mr Pritzker, but the decision only applies to the state lawmaker who brought that case: he can go out, but the rest of us must stay at home. A new lawsuit theoretically applies to everyone in Illinois; the governor has said lives will be lost if the order is lifted too soon.

So courts could be making some of the biggest decisions in my life in coming weeks — like when I can get a haircut. My girls managed to shave my head with shears we bought online last week, but I'm eager to take that botch job to the professionals as soon as possible.

Why is the law involved with my brush cut? Mimi Johnson is a make-up artist in Georgia, one of the first US states to allow beauty salons to reopen, but she says fear of lawyers is keeping her business near Atlanta, The Glamatory, closed anyway.

"I can wear a mask but my client can't wear a mask and I'm right there in their face," she says. "They could sue me claiming they got coronavirus at my salon. And though it might be hard for a plaintiff to prove that, you still have to go to court to defend yourself . . . and that would cost money."

US legal experts say it's too soon to know how widespread such litigation could be: plaintiffs will struggle to prove causation at a time when so little is known about how coronavirus infects its victims. There could be millions of potential litigants — more than in any mass injury situation, such as the 9/11 terrorist attacks, the BP oil spill, or even decades of asbestos litigation. The results depend on how many people are killed or injured by the pandemic — and whether businesses are granted protection from coronavirus lawsuits.

Victor Schwartz, a veteran campaigner for US tort, or personal injury law reform, says "it's only a matter of time until we see those trial lawyer advertisements on TV, 'have you or a loved one been harmed by coronavirus?'" But Anthony Sebok, an expert on tort law at New York's Cardozo school of law, says: "I don't see this as a looming tsunami of liability. There's a big difference between saying hypothetically speaking that a tort claim can be brought and finding a lawyer who will invest their time and energy in a suit."

US president Donald Trump and top Republicans want to shield businesses from coronavirus liability. But Liz Coyle, from consumer watchdog Georgia Watch, says: "If ever there was a time when you should not waive liability, it seems to me that it's now."

Mr Sebok says there could be some kind of "victim compensation fund", much as one was set up after 9/11, which would pay out to victims who waive lawsuits. Or the rules of litigation could be changed, to set a higher bar to such suits or limit damages. But that would require Congress to force Covid-19 suits into federal courts rather than state courts, where they normally are heard.

Either way, we'll have to make up the legal rules of this crisis as we go along, and fast. Or I may be stuck with my brush cut and Ms Johnson may not be doing any eyelash extensions for a long time to come.

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Opinion

Businesses can never go back to the way things were

Michael Moritz

Judging by the number of self-administered haircuts visible on Zoom calls these days, hairdressers have nothing to fear about their long-term prospects once the devastating disruption to their business ends. The same is not true for many other businesses, as Covid-19 reshapes the contours of our lives.

The plague sweeping the world has turbocharged the growth of the internet and catapulted us into the future. In the space of March 2020, many businesses fast-forwarded to 2025. For some this meant a surge in activity, but for a vast number doomsday has come early.

Almost all the companies whose fortunes have been lifted by the pandemic conduct all, or a big part, of their business over the internet. Many also provide services to the home. The management of the online restaurant and grocery delivery companies cannot add capacity quickly enough; the purveyors of online exercise equipment have brought puddles of sweat to many more basements and attics; video streaming services and producers of podcasts have scrambled to add bandwidth.

Covid-19 has also boosted the fortunes of companies providing remote medical diagnosis and home therapies. Educational institutions ranging from elementary schools to the world's leading universities have taken their lessons from the classroom and lecture hall to the bedroom and kitchen table. Large financial institutions have permitted their brokers to do the unthinkable: conduct trades from home. Software and hardware companies are scrambling to shield home workers from cyber attacks as a fresh crop of security companies are monitoring suspicious activity in deserted workplaces.

For others Covid-19 has accelerated the day of reckoning. Mall operators and department store owners have seen a preview of what their future was already going to look like. Many small restaurants and corner stores will never reopen because "cloud kitchens" or the 24-hour pharmacy will have taken their places. Gym operators may find that clients accustomed to exercising at home may not attend as frequently.

After the air corridors slowly reopen, business travel and entertainment will be severely dented. People who had

> The global plague has turbocharged the growth of the internet, catapulting us into the future

been accustomed to flitting back and forth to China six times a year might cut their number of trips in half and depend more heavily on video calls. The gruelling multi-city roadshows that are part of stock offerings are probably a vestige of the past.

Managers are likely to question the value of compelling teams to convene in one place. Those who doubt whether video calls can ever replace the benefits of personal meetings should remember that the defenders of voicemail once said that email could never capture the tones, inflections and spirit of an answering-machine message. As a result airlines and hotels will suffer for longer than anticipated and thousands of commercial aircraft will be dumped at fire-sale prices or sold for parts.

Bosses will also be far more willing to embrace the idea that their teams don't have to appear in an office just to demonstrate they are working. Millions have discovered the productivity boost gained from fewer social interruptions more than compensates for the loss of companionship. This doesn't portend the end of offices, but it probably means a future in which managers are more willing to let their employees spend some time working from home. It's easy to see how this could lead to a permanent crimp in the demand for commercial office space.

As for the recovery, the west is at a disadvantage to China where the response to Covid-19 has been more effective than the uncoordinated and tragically belated firefights conducted in the US and elsewhere.

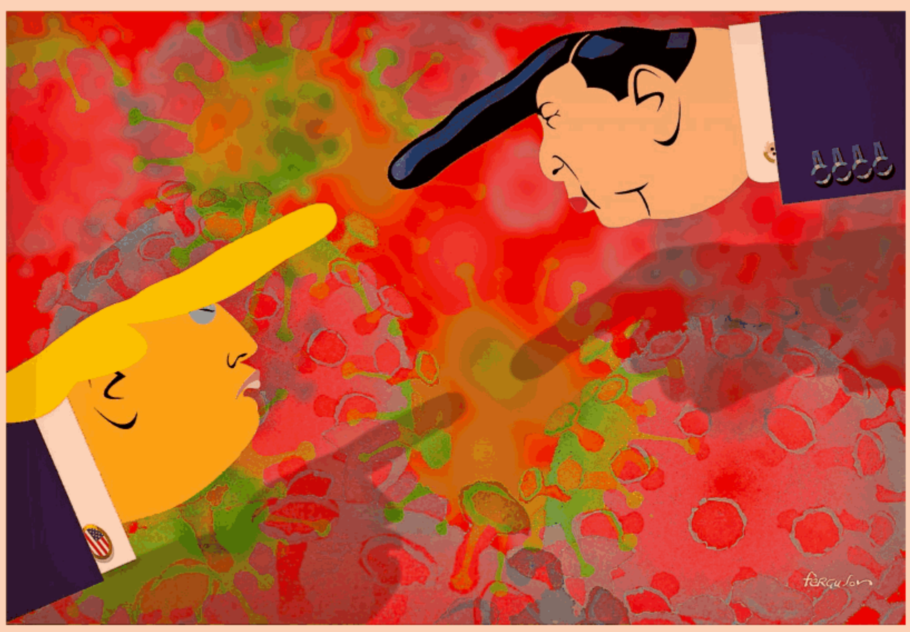
It will take longer for western consumers, with savings rates far below their Chinese counterparts, to regain confidence. An entire generation is now being given a taste of what their grandparents experienced during the Depression. In addition, Beijing is likely to take further steps to boost domestic consumption at a time when export markets remain shaky because of Covid-19, the trade war and its decision to nurture more homegrown technology.

For business and political leaders Covid-19 conveys two other lessons.

First, their organisations can move more quickly than they ever thought possible. Second, those who played down the warnings of the plague have now received a taste of what it will be like if they continue to ignore scientists' warnings about a far greater scourge to humanity: climate change.

The writer is a partner at Sequoia Capital

A dangerous blame game will do no good



GLOBAL AFFAIRS

Gideon Rachman

Future historians might record that the Covid-19 pandemic marked the start of a new cold war between China and the US. Even before coronavirus emerged, tensions between Washington and Beijing were rising. China had challenged American power in the Pacific, by building a chain of military bases across the South China Sea. In the US, the Trump administration had initiated a trade war.

Now as the pandemic wreaks havoc on the world economy, with more than one-quarter of the world's fatalities in America, Donald Trump is increasingly turning on China. The US president has endorsed the idea that the coronavirus originated in the Institute of Virology in Wuhan. He has also speculated that it might have been deliberately manufactured — an idea his own intelligence agencies have explicitly repudiated. The White House is also reported to be interested in trying to nullify the legal doctrine of "sovereign immunity", which protects China from being sued for damages in US courts.

China has also contributed mightily to the rise in tensions. A Chinese foreign ministry spokesman, Zhao Lijian, has floated the evidence-free idea that coronavirus might have originated in the US. Beijing has also responded with unreasonable aggression to calls for an international inquiry into what is now a global disaster. When the Australian prime minister, Scott Morrison, called for such an inquiry, the Chinese ambassador there raised the idea that his country's consumers might boycott Australian goods in retaliation.

Chinese officials seem to be under instructions to try to extend their own censorship regime to the foreign media and even foreign governments, policing what can be said, and threatening retaliation against those who fail to comply.

The Chinese ambassador in France has attacked the "malevolence" of the French media and crowed that people in the west are losing faith in democracy. Outspoken nationalists — such as Mr Zhao, the foreign ministry spokesman — have been rewarded with promotions. But these efforts are counter-productive and are fostering the anti-Chinese sentiment they claim to be repressing.

If Beijing took a more subtle approach to the protection of China's image, it would agree to an international inquiry into the origins of the virus. Such an investigation — if it was staffed by respected scientists from all over the world, including China and the US — would help to defuse some of the wild, and often contradictory, conspiracy theories circulating in both countries. Above all, an independent inquiry could provide valuable lessons to avert the next pandemic.

Of course, Beijing is highly unlikely to accept any such inquiry. Agreeing to let foreigners investigate events in China would be portrayed as a humiliation by nationalists. The Chinese government is also ruthless in protecting the image of both the Communist party and President Xi Jinping. An honest account of the early stages of the pandemic — and the intimidation of doctors who tried to raise the alarm — would embarrass the party. It might also be true that China has other damaging secrets to conceal.

China also has legitimate reasons to doubt the good faith of Mr Trump, who has consistently dabbled in conspiracy theories and repeated "fake news" while claiming to denounce it. This behaviour is likely to get even worse as the November US presidential election

> An independent inquiry into the origins of Covid-19 could provide lessons to avert another pandemic

approaches. However if China were to accept calls for an international inquiry, it would not be Mr Trump who drew up the terms of reference. Other parties, including the UN and the EU (whose commission president has also called for an inquiry) could help to ensure the objectivity of the process.

Do I expect any such inquiry to happen? Not really. But in the absence of an independent investigation, the blame game between the US and China is likely to escalate and become more dangerous.

Even before the pandemic, there was a strong case for the west to toughen its line with China on a range of issues, from Taiwan and Hong Kong, to investment in strategic industries. But the risk now is that a reasoned and principled reset of relations with China will slide into something more dangerous.

There is an undeniable element of xenophobia in some of the China-bashing that is going on in the west, which has led to a spate of verbal and physical attacks on Asian-Americans in the US. Senior American politicians, such as Republican senator Tom Cotton, are campaigning to stop Chinese students enrolling in technical courses such as artificial intelligence and quantum computing in US universities. There are even some hotheads in Washington who are calling for the US to renege on debt owed to China.

In China meanwhile, the nationalist twist that was given to the school curriculum 30 years ago, after the Tiananmen Square massacre, has raised an often-angry generation, quick to take offence at alleged slights by foreigners and eager to demonstrate Chinese power. Those sentiments are nurtured by a government that wants to deflect discontent away from the Communist party itself.

At worst, all these angry emotions on both sides will lead not just to a cold war, but to a hot one: a real, armed conflict. Both the US and China need to move off that dangerous path. The first step would be to agree to an independent international inquiry into the origins of Covid-19.

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Churchill's lessons for a Johnson-led programme of social reform

Gavin Kelly

It was inevitable, perhaps, that the UK's response to the coronavirus pandemic would result in regular rhetorical nods to the nation's foremost crisis leader. Boris Johnson, a biographer of Winston Churchill, was always going to succumb. But so, too, have lesser-known politicians straining to rise to the demands of the moment.

Some may mock, but a better reaction would be to insist that if the nation's fate is to turn to Churchill we should, at least, draw the right lesson. He has more to offer than "blood, toil, tears and sweat."

When a proper reckoning with the pandemic experience takes place, it will surely feature a chapter on what has been exposed about the precarious working conditions of many of those who have kept the UK in one piece. Half of frontline care workers are paid less than the real living wage and insecure zero-hours contracts are rife. Delivery drivers are regularly forced into self-employment, missing out on sick pay or the minimum wage. Typical pay across the nation's food supply chain stood at £8.59 per hour last year. None of this is new, but heightened awareness of our dependence on these workers casts their plight in a fresh light.

Building new solutions often involves drawing inspiration from the old. This is where Churchill — in his early, social-reformer phase — might help us. During the Asquith government he saw glaring social injustice in the world of work and, as president of the Board of Trade, decided to act. He was unperturbed by the fact that tackling atrocious labour conditions collided with washed-up Victorian notions of a minimalist state. Those, Churchill realised, were already circling the drain of history.

"It is a serious national evil," he thundered, "that any class of His Majesty's subjects should receive less than a living wage." Where there is an extreme imbalance of power — strong employers, vulnerable workers, no unions — Churchill argued "the operation of supply and demand" could result in the "progressive degeneration" of labour standards.

The 1909 Trade Boards Act that followed created wage boards of employers, workers and independents charged with improving conditions in four problem industries. The reforms gathered momentum and, in the wake of both world wars, the scope and powers of Churchill's boards were greatly expanded. They became an established pillar of the mid-20th century social

> More dignity at work for some might mean higher prices, or lower dividends, for others

contract and covered a quarter of the workforce.

But Churchill's creations were marginalised by Labour and the unions in the 1970s, attacked by the Thatcher government in the 1980s, and finally laid to rest under John Major in the 1990s.

Away from Westminster, there are now stirrings of interest in reviving this approach. The Welsh government is looking at establishing sectoral bodies to raise conditions, starting with social care. In Scotland, the Fair Work Convention, which advises government, is well placed to flesh out nascent sectoral deals. In Northern Ireland, the recent cross-party agreement that restored Stormont committed to acting on work insecurity such as zero-hour contracts.

This may run counter to recent UK policy. But it reflects the trajectory of Anglo-Saxon economies in New Zealand and Australia, where flexible labour markets are combined with sectoral bodies that regulate labour standards.

Any move in this direction would need to do more than dust down Churchill's early 20th-century inventions. Whether it is policing the fuzzy boundaries of self-employment, accrediting new forms of training or countering the impact on workers of the growing monopsony power of online platforms, there is a 21st-century hole to fill.

None of this is to suggest that institutions can magic away inevitable trade-offs. More dignity at work for some might mean higher prices, or lower dividends, for others — though changes could also make it worthwhile for employers to retain and train their workforce. Different social arrangements create winners and losers. The experience of this crisis, if nothing else, has laid bare who has been losing out under the status quo.

There would, of course, be opposition. Employers' groups would instinctively recoil and many in Mr Johnson's party would be appalled. Churchill swept away such concerns and, today, Mr Johnson could do the same. He is, after all, a leader with political capital to spend. The state is propping up much of the business community and underwriting the national wage bill, even as the prime minister is delivering the prize of Brexit to his backbenchers.

Britain would reveal itself as a country desperately lacking social ambition if, as employment recovers, it deems a willingness to experiment with measures to raise working conditions too much to aim for. Mr Johnson should be a true Churchillian and change the rules of the game to benefit the nation's overlooked workers. Winning the peace, as he might put it, demands nothing less.

The writer is chair of the Resolution Foundation and Living Wage Commission

Philanthropy can plug the science research funding gap

Alice Gast

Academics at Imperial College in London are in the vortex of the global coronavirus storm. Epidemiologists led by Neil Ferguson have been central to the scientific response to the pandemic, advising governments around the world. Prof Ferguson's team were among the first to raise the alarm as evidence emerged of a startlingly contagious and deadly new virus in Hubei province. Financial support, most notably from the UK's Medical Research Council and global philanthropists like Community Jameel, enabled them to work quickly and openly from those first early weeks, with timely reports made available to the public in multiple languages.

Over the past few years, Robin Shattock and his team of Imperial virologists have been steadily advancing a new concept in vaccine technology: a self-amplifying RNA vaccine. When Covid-19 emerged, they swiftly obtained its genetic code from China and, within 14 days, had a candidate vaccine to test on animals and prepare for human trials. This record speed was possible thanks to some generous and flexible funding from philanthropists.

Prof Shattock spent days of precious lab time applying, lobbying and cajoling for funding to move his vaccine forward. Fortunately, donors stepped up to bridge the funding gap before the UK government contributed a further £22.5m last month to take the vaccine through phase II trials.

Even now, with this significant

> This crisis demands rapidly deployed support to fund the new, the risky and the visionary

government investment, philanthropists can make a crucial difference. If Prof Shattock's team can run parallel trials overseas, they will get faster results, receive swifter approval from regulators and be able to expand manufacturing worldwide.

The coronavirus crisis has shown us the importance of sustainably funded scientific research. Most of this funding must carry on over the long term. Endowed chairs and programmes provide support in perpetuity. Government investment is critical and taxpayers the world over should be very proud of their contributions to this societal good. But the new technologies and therapies that emerge today are only possible due to long-term, carefully and continuously supported research. And seizing those opportunities is only possible with philanthropic support that is flexible, can be rapidly deployed, and can support the new, the risky and the visionary.

In a crisis, you also need flexibility and lateral thinking. Philanthropists offer just that when every day of lab time matters. They can unlock multiple, sometimes radical approaches, tolerating failures along the way. Hundreds of donors to our Covid-19 Response Fund are enabling rapid, rolling distribution of grants to high-potential research, including a low-cost open source ventilator and a lab-free coronavirus test that produces results in about an hour.

A few months ago, the night before we launched the Jameel Institute for Emergency and Disease Analytics at Imperial's School of Public Health, leaders of another academic group supported by Community Jameel, this one in Massachusetts — the Jameel Poverty Action Lab, J-PAL, at MIT — were announced as the winners of the Nobel Prize in economics. It was appropriate recognition of the impact that J-PAL had already had on reducing poverty for millions of people around the world. It was also a fitting tribute to Mohammed Jameel, a philanthropist who supports academic projects that could not otherwise have thrived any other way.

Through this pandemic, we've shifted our ways of teaching, and our ways of working. One thing remains unchanged: generous people are more important to the scientific effort than ever. Further growth in philanthropy, with support offered in perpetuity, with built-in flexibility and tolerance of risk, will help scientists prepare for the next major threat. In the uncertain world ahead, we will need these funders.

The writer is president of Imperial College London

Lex.

Twitter: @FTLex

Telefónica/Liberty: rainy day dealmaking

Merging with a UK mobile network could yield "interesting" synergies of up to €700m a year, Liberty Global boss Mike Fries said in September. Yet that was not enough for him to pursue a deal. Fast forward seven months and Mr Fries is doing just that with Telefónica's O2. So what changed?

Not the potential cost cuts. Suppose that combining Liberty's UK mobile network Virgin Media with O2 unlocked annual savings as high as €700m. About €200m of that would come from migrating customers of Virgin Media, a virtual operator that piggybacks on other providers' networks, off Vodafone and on to O2.

The savings would represent just 5 per cent of the combined units' sales; taxed and capitalised they are worth about €5bn. A further boost could come from Virgin Media tax losses, helping cover any cash outlay by O2.

Antitrust issues have hardly dissipated. The latest tie-up would create a company controlling roughly one-third of the UK market by telecoms services revenues. Competition authorities nixed Telefónica's bid to sell O2 to CK Hutchison's Three for £10.3bn in 2016, although BT's £12.5bn purchase of EE got the nod.

The big change since last year is an external one. The coronavirus pandemic has put the stress — literally — on balance sheets. Telefonica's is not pretty. It was sitting on €37.7bn of net debt at the end of 2019, or 3.5 times ebitda on S&P Global numbers. Suppose the deal is structured as some form of leveraged joint venture, with a cash top-up from Liberty, supplier of the weaker assets. There could then be a release of funds to Telefónica. Jefferies estimates that this could weigh in at €10.4bn.

As Mr Fries's comments underline, a deal involving O2 and Virgin Media has long been on the cards. Recasting it as a 50/50 joint venture is a classic rainy-day compromise. It allows Telefónica to clear some cash while sparing egos that might be knocked out of joint by a straight takeover or merger.

If the two parties were lucky, the structure could even help assuage the concerns of trust busters. Virgin Mobile's long-suffering customers might see a service improvement. But cost cuts are always easier to guesstimate than to realise. At a time when savings should be made anyway, it is harder to use them as the justification for a deal.

Norwegian Air: taking a flyer

Warren Buffett may have turned bearish on airlines, but the lenders and lessors of Norwegian Air are hoping he is wrong. A debt-for-equity swap will leave them as big shareholders in the low-cost, long-haul pioneer. Averting imminent bankruptcy sent shares up to 45 per cent higher yesterday.

The chosen flight path — and the willingness of investors to support it — illustrates the scale of the challenge faced by airlines globally. There are plenty more restructurings stacked for landing after this one.

Norwegian was struggling with a high debt load even before coronavirus grounded flights. Now creditors, including aircraft lessors, will take equity position in lieu of about NKr10bn ($965m) of liabilities. That will give it almost double the 8 per cent equity-to-debt ratio needed to qualify for NKr3bn of state loan guarantees.

Lessors typically want to own aircraft without a side order of equity in an unprofitable airline. But with Norwegian close to collapse, they had little alternative. Bondholders were also compelled to accept the deal. Collateral for borrowings are Norwegian's slots at Gatwick airport.

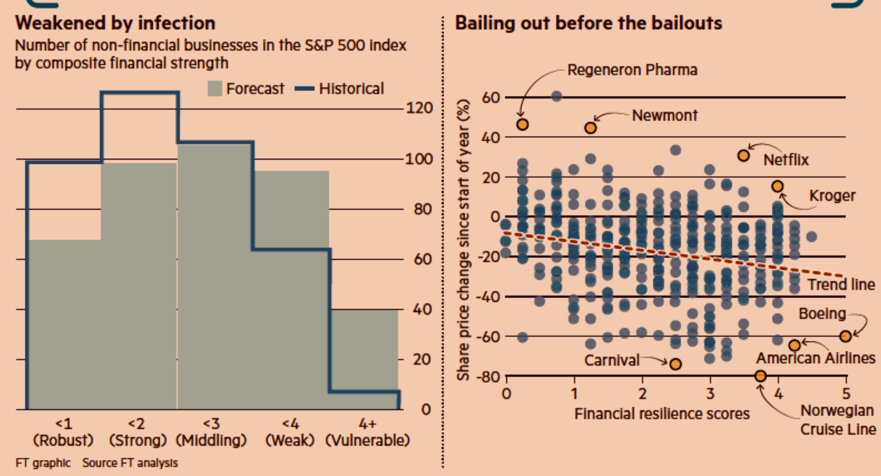
Prior shareholders will end up with just 5 per cent of the company as creditors assume ownership. Further dilution is possible for those unwilling to participate in a planned NKr400m rights issue, another precondition for state-backed underwriting.

After the restructuring, Norwegian will have NKr3bn in liquidity. All but 200 staff have been laid off and a payment holiday on bonds until next year is in place. Lessors may absorb extra losses of their own via payments conditional on aircraft use — a so-called "power by the hour" arrangement — until July 2021.

Norwegian thinks it will have enough funding to last six months from this July under its own worst-case scenario. Mr Buffett bailed out of airlines since he believes traffic will take years to recover to pre-crisis levels. It is a bad omen for participants in this rescue.

S&P 500 resilience: weakened by coronavirus

Lex analysis shows that a hit to earnings from the pandemic leaves one-third of the S&P's non-financial constituents weak or vulnerable. The stock sell-off has discounted leveraged businesses more heavily than those with strong finances. New overlays of debt will slow economic recovery.



FT graphic Source FT analysis

If you can refinance Boeing, you can refinance most businesses. The US aircraft group came bottom of a Lex resilience screening of the S&P 500, before and after stress-testing.

Its liabilities are heavy, as is the impact of coronavirus on its sales outlook. But aided by its strong brand and duopoly status with Airbus, it sold $25bn of investment-grade bonds last week.

Analysis of the US index repeats our finding for the UK's FTSE 350: the cohort classed as "weak" or "vulnerable" doubles in size when annual earnings are discounted by a quarter to allow for the pandemic.

Our conclusion holds good too — as illustrated by the Boeing bond deal and federal support for American Airlines. Huge slack in the financial system means a series of big bankruptcies is unlikely. Instead, debt workouts will slow economic recovery.

A higher proportion of S&P 500 groups are weak or vulnerable after stress-testing, at about 33 per cent compared with 26 per cent in the FTSE 350. America has a stronger economy but higher debt. Lex's simple check gave each non-financial S&P stock a rating of 0-5 reflecting four metrics, such as net borrowings to ebitda and the quick ratio — cash and equivalents divided by liabilities.

Before stress-testing, the vulnerable category was dominated by power utilities. Given quasi-public backing and an essential product, they are in little danger. Coty, an incomer, looks genuinely vulnerable. Americans are hardly putting on make-up, so prospects for the leveraged cosmetics company look dim. Big businesses whose transition to "weak" status stands out include AT&T, Ford, McDonald's, concerts group Live Nation and DIY retailer Lowe's.

Caveats apply to the forecast of cataclysm averted. First, there will be some big collapses. Second, short or patchy lockdowns across the US heighten risks of a second epidemic.

That might be good for Campbell's Soup, ranked as weak before Covid-19. Panic-buying of familiar brands has bolstered it. Despite having a credit rating of BBB-, the lowest investment-grade notch, bonds due in 2028 yield a paltry 2.1 per cent.

Intel: Moovit or lose it

Not satisfied with the recent uplift in chip sales, Intel appears to be topping up its expensive bet on self-driving. The semiconductor giant is reportedly interested in Israeli public transport app Moovit. This would sit comfortably with its 2017 acquisition of autonomous vehicle sensor company Mobileye.

A group hampered by its dependence on immobile PCs is yearning for greater freedom of movement itself. Moovit's estimated annual revenues of $30m would have little impact on Intel's near-$74bn in forecast sales this year. The app has 800m users — up sixfold in less than two years — but it is data that Intel is likely to be interested in.

Processing traffic data while driving is a challenge for autonomous vehicles. Moovit collects information from 7,500 public transit operators around the world. Plugging this into Mobileye's advanced driver assistance system could help to create real-time maps.

A decline in Intel's personal computing business and competition from AMD creates pressure to diversify. Pandemic homeworking bumped up PC sales 14 per cent in the first quarter. But Gartner predicts PC shipments will fall for the next three years.

Intel is willing to pay steeply for a new direction. It purchased Mobileye for $15bn at an implied price to revenue multiple of 40 times. At a mooted price of $1bn, Moovit's multiple would be about 33 times.

After consecutive quarters of downbeat sales, the first three months of 2020 showed a recovery in chips. Free cash flow rose 76 per cent year on year to $2.9bn. It has warned that the second half of 2020 could be dicey and has suspended buybacks. But there is reason to think the pandemic will continue to push activity online.

Combining two mobility tech groups is logical only if the initial diversification made sense. Autonomous vehicle accidents and nervous regulators mean proof of that may be decades away. The deal more reliably shows that Intel still seeks a task as compelling as making chips for the tech revolution's first wave.

J Crew: abandon ship

The litany of retailers bought and wrecked by private equity owners has gained a new name. J Crew, purveyor of preppy fashion, filed for bankruptcy yesterday. In the end, the holes in its balance sheet proved too big to mend.

With $1.68bn of total debt, a legacy in part of a 2010 $3bn leveraged buyout by TPG and Leonard Green & Partners, US-based J Crew was ailing before the virus forced the closure of its near-500 stores. Creative mis-steps, competition from fast fashion and online retailers have all been blamed for the company's sales challenges. But that is only part of the story.

J Crew was actually profitable on an operating level. A rise in sales and gross margins helped the retailer to an operating profit of $71.5m last year. It ended up in the red only after paying out $146.7m in interest expenses. The heavy debt load crippled the business.

An IPO of Madewell, J Crew's younger and faster-growing brand, would have thrown the company a much-needed lifeline. Proceeds from an IPO could have been used to reduce borrowings. But that plan was scrapped in March as the stock market fell and the US economy nosedived.

J Crew avoided bankruptcy in 2017. Lenders are in a less forgiving mood this time around. Under the latest agreement stitched together, about $1.65bn of J Crew debt will convert into equity. TPG and Leonard Green & Partners stand to see their existing stakes all but wiped out.

Fairway, Toys R Us, Gymboree and Payless ShoeSource are among the other private equity-backed retailers that have filed for bankruptcy in recent years. J Crew is unlikely to be the last.

Neiman Marcus, the upmarket department-store operator owned by Ares Management and the Canada Pension Plan Investment Board, has missed debt payments and is reportedly preparing a filing.

Finance-driven capitalism is supposed to make economies more dynamic. The wave of retail bankruptcies tells a different story.

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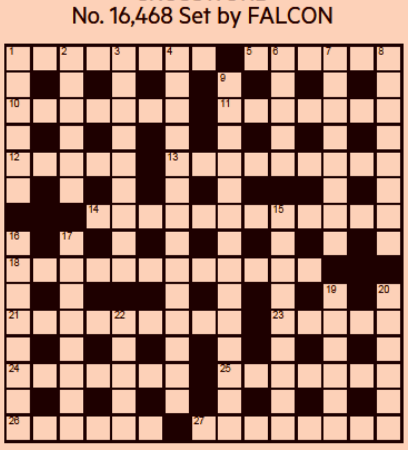
WEATHER

Today's temperatures Maximum for day °C & °F

Amsterdam	Sun	13	55	Madrid	Sun	25	77
Athens	Sun	24	75	Manila	Sun	37	99
Atlanta	Thunder	31	88	Melbourne	Fair	19	66
Beijing	Sun	26	79	Mexico City	Fair	28	82
Belgrade	Shower	22	72	Miami	Fair	31	88
Berlin	Shower	12	54	Montreal	Cloudy	11	52
Bermuda	Sun	23	73	Moscow	Thunder	21	70
Bogota	Rain	20	68	Mumbai	Sun	34	93
Brussels	Sun	15	59	Nassau	Sun	30	86
Buenos Aires	Fair	15	59	New York	Sun	17	63
Caracas	Shower	31	88	Nice	Fair	19	66
Chicago	Rain	10	50	Oslo	Sun	14	57
Copenhagen	Fair	12	54	Paris	Rain	17	63
Dallas	Sun	27	81	Prague	Sun	11	52
Delhi	Sun	35	95	Reykjavik	Drizzle	9	48
Doha	Sun	35	95	Rio	Sun	30	86
Dubai	Sun	35	95	Rome	Sun	22	72
Dublin	Sun	13	55	San Francisco	Sun	21	70
Edinburgh	Sun	14	57	Seoul	Fair	21	70
Frankfurt	Sun	16	61	Shanghai	Cloudy	22	72
Geneva	Thunder	20	68	Singapore	Thunder	32	90
Hamburg	Sun	14	57	Stockholm	Fair	14	57
Helsinki	Fair	14	57	Sydney	Fair	19	66
Hong Kong	Sun	31	88	Taipei	Shower	33	91
Honolulu	Drizzle	29	84	Tel Aviv	Thunder	24	75
Jakarta	Shower	32	90	Tokyo	Rain	25	77
Karachi	Sun	38	100	Toronto	Fair	9	48
Lima	Fair	23	73	Vancouver	Fair	15	59
Lisbon	Fair	21	70	Vienna	Fair	17	63
London	Sun	14	57	Warsaw	Rain	11	52
Los Angeles	Sun	31	88	Washington	Rain	14	57
Luxembourg	Sun	15	59	Zurich	Rain	13	55

CROSSWORD
No. 16,468 Set by FALCON



JOTTER PAD

ACROSS
1 Enormous deficiency in fossil fuel (8)
5 Starts to realise he's yet to hear Mersey beat (6)
10 Protective garment in the past given to everyone (7)
11 Plump single mother could be best (7)
12 Follow lawsuit involving hospital (5)
13 Happy hour binge in one next door (9)
14 Infant school class painting in splotchy green (12)
18 Tender lines by Frost, say, in something read to a child? (7,5)
21 Large market town, a Welsh one, misrepresented (9)
23 Winds back cylindrical device (5)
24 Month round Connecticut – temperate, no sun (7)
25 Someone having the potential to succeed (7)
26 Fording Welsh river, came across an old firearm (6)
27 Traitor's act shown on film (8)

DOWN
1 Plum variety (6)
2 Room in shelter on course (6)
3 Drink Japanese drink, around noon, before snack (9)
4 Part of what is expected, and no trouble (3,2,1,4,4)
6 Problem struck church (5)
7 That worm agitated pig (8)
8 Film politician almost embracing artist close to breakdown (8)
9 Sanctimonious author in hotel, getting drunk after hours (6-4-4)
15 US prosecutor up, calling for confession (9)
16 Grub in new Norwich motel's original (8)
17 Talks foolishly about the Spanish members of the clergy (8)
19 Hat wife discarded, plus old jacket (6)
20 Cupboard shut by last in basement (6)
22 Poet's black fur (5)

Solution 16,467