FINANCIAL TIMES

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Bolsonaro battles a crisis on many fronts — BIG READ, PAGE 15

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Highlights from the FT's business book of the year awards — PAGE 12

Cross purposes
Putin says peak is not yet close

Alexander Emochenko/Reuters

People in the separatist-held Ukrainian city of Donetsk queue to kiss the cross to mark Orthodox Easter yesterday.

The religious festival was expected to test coronavirus containment measures in a number of Orthodox Christian countries, including Ukraine, Greece and Russia, where new infection numbers rose by more than 6,000 yesterday. So far 361 people have died from the virus in Russia.

President Vladimir Putin warned that Russia's outbreak was not yet close to peaking, despite the national lockdown enforced last month.

"This year, [Easter] is being celebrated amid forced restrictions," Mr Putin said in his traditional Easter address. "The situation is under full control."

Private creditors resist G20 plea to give poorer nations debt relief

● One-size-fits-all deal deemed unfeasible ● Payment freeze needs bondholder agreement

COLBY SMITH — NEW YORK
ROBIN WIGGLESWORTH — OSLO

Investors have pushed back on pleas by the G20 group of nations to allow emerging economies to pause debt repayments, in an early sign of how difficult it will be to get private creditors to agree on coronavirus relief measures.

The G20 urged private creditors last week to participate in its plan to provide temporary debt relief to low-income countries until the end of the year.

Concern has been mounting over the debt sustainability of lower-income countries that borrowed heavily in the years after the 2008 global financial crisis and now lack the resources to deal with the twin health and economic crises caused by the pandemic.

Zambia and Ecuador have already been forced to seek debt restructurings, and many more countries are expected to follow, given the scale of the financial shock caused by the outbreak.

But while investors have said that flexibility was warranted by the dire economic prognosis for many poorer nations, they cautioned that a uniform arrangement was unfeasible in practice.

Mohamed El-Erian, chief economic adviser at Allianz, argued against a "top-down" solution, advocating instead for a country-specific strategy.

"History suggests the best approach is an orderly and voluntary one," he said. "Orderly, so that you don't delay the economic and financial recovery, and voluntary, so you get good buy-in."

Marcelo Assalin, head of the emerging markets debt team at William Blair, said: "A one-size-fits-all solution is not appropriate."

The G20 countries have agreed to freeze bilateral government loan repayments for 76 low-income countries until the end of the year, debt assistance worth more than $20bn. The Institute of International Finance, an industry body, has urged private creditors to follow suit with "voluntary" standstills if requested by some of the poorest countries hardest hit by Covid-19.

Yet without some kind of legal mechanism to force creditors to agree to a standstill, getting enough on board to back a debt moratorium will be a challenge, investors warned.

In past debt restructurings, some bondholders have refused to accept changes to their payments and launched legal action. That might be a thorny issue to resolve, even if a broad majority of investors reached an agreement on the need for debt relief, according to fund managers and analysts.

One solution offered by financial and legal academics is for countries to funnel debt payments into credit facilities set up by the World Bank or a regional development bank, which the countries could then tap for essential spending.

This would constitute a de facto standstill but would not be a technical default, so long as creditors agree. Creditors would meanwhile benefit from the legal protection enjoyed by organisations like the World Bank, and once the crisis had passed a decision could then be made on whether a full debt restructuring was necessary.

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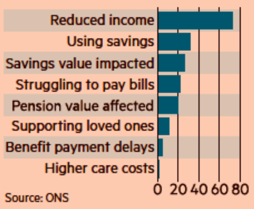
Datawatch

Covid-19's financial hit
% of UK households facing the following due to pandemic



Source: ONS

Almost three-quarters of British households say their income has been reduced as a result of the coronavirus pandemic. Nearly a third are using savings to cover living expenses, while one in five are struggling to pay their bills.

Uber hails goods deliveries as best route to revenues

Uber is reviving plans to move into delivering goods as its seeks out new sources of revenue to offset the sharp decline in its core ride-hailing business. The company, which withdrew financial guidance for 2020 last week, will launch two new services — one to allow retailers to distribute goods direct to consumers, the other to help people send personal items. Uber briefly tried its hand at courier services before shifting its focus to food.
Analysis ▸ PAGE 6

Fresh outbreak in China's north-east threatens to stall coronavirus recovery

CHRISTIAN SHEPHERD — BEIJING

A cluster of new coronavirus cases in the northern Chinese city of Harbin has forced local authorities to impose fresh lockdown measures, threatening to hinder efforts to restart the economy.

China had been reporting close to zero new local infections since mid-March, boosting hopes that the country had effectively contained the virus that first emerged in Wuhan in December.

However, in the past week dozens of transmissions within the country have been confirmed, mainly in Heilongjiang province, which borders Russia.

China is in the process of reopening its economy after measures to halt the pandemic resulted in the country's first quarterly contraction in decades.

Huang Yanzhong, a senior fellow for global health at the Council on Foreign Relations, said the new outbreak in Harbin illustrated the risk of a resurgence.

"A second wave attack could be coming in a way that authorities don't expect," he said.

As the pandemic has spread across the globe infecting millions of people, Beijing has faced accusations that it failed to raise the alarm quickly enough and lied over the true extent of the problem. The US, the UK and France have all complained of a lack of transparency.

Authorities in Wuhan last week revised up the official death toll in the city by 50 per cent.

As of yesterday, Heilongjiang had 61 active cases of Covid-19 from local transmission, the province said, including those without symptoms, 54 of which were in Harbin, the provincial capital.

China's health commission said it was now dealing with 1,041 active cases, most of them imported.

A 22-year-old university student who returned to Harbin from the US has been identified by authorities as the source of more than 40 new infections.

The infections in Harbin set off a flurry of activity in the city, with long lines outside hospitals and some central areas being once again placed under lockdown, according to videos shared online and local media reports.

On Saturday, 18 Harbin officials were given a political demerit, a black mark in Communist party personnel files, for failing to prevent the new outbreak.

Heilongjiang's hospitals have already been stretched by hundreds of imported cases from Chinese citizens who entered the country from Siberia.
Jamil Anderlini page 17

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World Markets

STOCK MARKETS

	Apr 17	Apr 10	%Week
S&P 500	2874.56	2789.82	3.04
Nasdaq Composite	8650.14	8153.58	6.09
Dow Jones Ind	24242.49	23719.37	2.21
FTSEurofirst 300	1308.13	1300.54	0.58
Euro Stoxx 50	2888.30	2892.79	-0.16
FTSE 100	5786.96	5842.66	-0.95
FTSE All-Share	3190.20	3233.24	-1.33
CAC 40	4499.01	4506.85	-0.17
Xetra Dax	10625.78	10564.74	0.58
Nikkei	19897.26	19345.77	2.85
Hang Seng	24380.00	24300.33	0.33
MSCI World $	1964.33	-	
MSCI EM $	884.86	-	
MSCI ACWI $	468.06	-	

CURRENCIES

	Apr 17	Apr 10		Apr 17	Apr 10
$ per €	1.089	1.094	£ per $	0.800	0.802
$ per £	1.250	1.247	€ per £	1.148	1.140
£ per €	0.871	0.877	¥ per €	117.084	118.689
¥ per $	107.525	108.505	£ index	78.557	78.032
¥ per £	134.450	135.290	SFr per £	1.208	1.204
SFr per €	1.052	1.056			
€ per $	0.918	0.914			

COMMODITIES

	Apr 17	Apr 10	%Week
Oil WTI $	18.29	23.47	-22.07
Oil Brent $	28.40	32.03	-11.33
Gold $	1729.50	1680.65	2.91

INTEREST RATES

	price	yield	chg
US Gov 10 yr		0.61	-0.01
UK Gov 10 yr		0.30	0.00
Ger Gov 10 yr	104.79	-0.47	0.00
Jpn Gov 10 yr		0.01	0.01
US Gov 30 yr	136.35	1.20	-0.03
Ger Gov 2 yr	105.22	-0.71	-0.01

	price	prev	chg
Fed Funds Eff	0.65	1.58	-0.93
US 3m Bills	0.14	0.14	0.00
Euro Libor 3m	-0.19	-0.22	0.03
UK 3m	0.67	0.67	0.00

Prices are latest for edition
Data provided by Morningstar

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FINANCIAL TIMES

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CORONAVIRUS ROUND-UP

Mnuchin signals accord with Congress over additional small business loans

US Treasury secretary Steven Mnuchin said the Trump administration was close to reaching a deal with Congress to provide another $300bn in loans for small businesses that had been devastated by coronavirus.

"I think we're very close to a deal," Mr Mnuchin told CNN. Nancy Pelosi, the Democratic Speaker of the House, also told ABC News that both sides had reached "common ground" and were "very close to an agreement".

India eyes China as it imposes curbs on 'opportunistic takeovers' during crisis

India has tightened its foreign investment rules to block "opportunistic takeovers" by its neighbours, acting on concerns that Chinese buyers could use the coronavirus pandemic to snap up weakened Indian companies.

The ministry of commerce said on Saturday that any entity based in or tied to a country "which shares [a] land border with India" would require government approval before investing in an Indian company. The move most significantly affects Chinese organisations.

Stars pay tribute to health workers

Lady Gaga, above, Beyoncé and The Rolling Stones were among stars performing in an eight-hour virtual concert paying tribute to health workers on the front line of the coronavirus pandemic this weekend. Proceeds from the One World: Together At Home event will go to the Covid-19 Solidarity Response Fund for the WHO.

Spain extends lockdown but plans to relax rules on allowing children out

Spain will prolong its five week-long coronavirus lockdown until May 9 at least, and has warned that May will be just the beginning of a slow transition to life after quarantine. Pedro Sánchez, prime minister, said on Saturday he would ask parliament for a two-week extension of the state of alert.

But he added that his government planned a slight relaxation of the regime to allow children out of their homes before the end of this month.

Nigeria to repatriate citizens from south China after Africans branded as carriers

Nigeria plans to evacuate its citizens from southern China after Africans were targeted as "carriers" of coronavirus. In the city of Guangzhou, where a large portion of Africans in China live, many Nigerians were keen to leave, said Geoffrey Onyeama, Nigeria's foreign minister.

African ambassadors have condemned "persistent harassment and humiliation of African nationals", after a video showed people of African descent being evicted from homes and hotels in Guangzhou.

Cases so far:

2,356,475

cases and 162,070 deaths by 5.38pm (BST) on April 19

Source: Johns Hopkins University, CSSE

Read more at ft.com/coronavirus

Lockdown measures

Michigan governor hits back at Trump

Democrat defends policy after president's call to 'liberate' her state

DEMETRI SEVASTOPULO AND KADHIM SHUBBER — WASHINGTON

The governor of Michigan has defended her strict Covid-19 lockdown measures after Donald Trump called on his supporters to "liberate" the mid-western state in the latest iteration of clashes between the president and states over the reopening of the US economy.

Gretchen Whitmer, a potential vice-presidential running mate for Democratic White House contender Joe Biden, said the restrictions were a response to Michigan being one of the most severely hit by the disease.

"The only response [to Trump] is that Michigan right now has the third-highest death count in the country," Ms Whitmer told CNN. "My stay-home order is one of the nation's more conservative but . . . these efforts are making a difference and saving lives. We have got to continue doing it."

Ms Whitmer was speaking as protesters in pockets of the country have come out to oppose the lockdown orders imposed by governors to curb the spread of the virus. Mr Trump on Friday sparked outcry when he called on supporters to "liberate" three states that have Democratic governors: Michigan, Minnesota and Virginia.

Michigan has recorded a relatively high mortality rate: its death toll has exceeded 2,300, putting it third after New York and New Jersey, even though it is only the 10th-most populous US state. With 31,000 confirmed Covid-19 patients, Michigan has the sixth-highest number of the total of 735,000 cases across the country.

Conservative activists have stepped up protests — including against some Republican governors — arguing that the restrictions violate their civil rights. The demonstrations have echoes of the anti-establishment agitation that led to the rise of the Tea Party movement a decade ago, and have involved activists who customarily espouse more traditional rightwing causes, such the fight against gun-control measures.

Denny Tubbs, 67, a local leader of Ohio Stands United, a gun-rights group, told the FT that he would attend a protest in the Ohio state capital of Columbus against closures ordered by Mike DeWine, a Republican governor. "I'm not saying it doesn't have to be dealt with [but] shutting down and crushing the economy is not the way to do it," said Mr Tubbs, a gunmaker by trade. "Our civil rights have been stomped on."

Asked on Friday whether he was fomenting civil unrest, Mr Trump said he believed some of the protests were warranted given the "too tough" restrictions imposed by a handful of governors. On Saturday, Mr Trump again refused to condemn the protesters, saying they were reacting to overly draconian measures from some governors.

"Some of the governors have gotten carried away," he said. "We have a lot of people that don't have to be told to do what they're doing. They've been really doing everything we've asked them."

There were protests calling for an end to lockdown orders outside the Texas State Capitol building on Saturday.

On Friday, several hundred people gathered outside the residence of Tim Walz, Minnesota's Democratic governor, to protest with placards that had slogans such as "Facts not Fear". Footage of the event revealed most were not practising social distancing.

> 'The only response [to Trump] is that Michigan has the third-highest death count in the country'

Fraud. Cyber criminals

Germany cracks down on aid scams

Labour minister pledges that all swindlers will be found and prosecuted

GUY CHAZAN — BERLIN

German authorities have cracked down on coronavirus-related fraud amid mounting evidence that scam artists, many of them based in eastern Europe, were hijacking the country's generous aid programme for businesses hit by the pandemic.

Hubertus Heil, labour minister, said all would-be swindlers would be investigated and prosecuted.

"Most people will behave decently and the black sheep that are committing fraud, we will catch them, and we will punish them," he told German state broadcaster ARD TV this week.

On Thursday, Berlin police said a man identified as Ahmad A. was under investigation for "exploiting the corona crisis" to gain €18,000 in financial assistance from IBB, Berlin's development bank.

The man, who police said has links to a militant Islamist movement in the capital, claimed to be running a business that was suffering due to the corona-related shutdown, when in fact he was living on benefits. Officers searched his flat and confiscated cash and electronic devices.

In the most spectacular instance of abuse so far, the government of North Rhine-Westphalia, Germany's most populous state, was forced to suspend its aid programme for a week after discovering that criminals were exploiting it to divert hundreds of thousands of euros into their own pockets.

The fraudsters had constructed more than 90 fake websites that trawled the data of companies applying for emergency funds, an activity known as "phishing". They then used the information to apply for funds that flowed from state coffers into their own accounts.

Authorities say they are investigating 104 such fake sites, some of which have been traced back to servers in Slovakia and the US. "We're talking about absolute professionals with excellent IT expertise," said the region's interior minister, Herbert Reul.

He said criminals were boasting on the so-called dark web, a part of the internet that can only be accessed using specialised software, of having successfully phished 3,500-4000 data sets.

Isabel Skierka, a researcher in digital security at the ESMT Berlin business school, said the pandemic had provided lucrative new opportunities for cybercriminals to prey on people's fear.

"People are less cautious and more willing to download documents or open links related to the virus and their personal and financial situation in this crisis," she said.

With more employees working from home criminals were also able to "get access to a company's internal network through employees' insecure home office set-ups," she added.

Germany was one of the first countries to set up big aid programmes for businesses affected by the coronavirus pandemic, which the IMF has predicted will cause the worst global economic slump since the Great Depression of the 1930s.

Output has dropped sharply after companies across Germany suspended production in a lockdown that has temporarily closed thousands of businesses.

Over the past few weeks the German government has established a €600bn bailout fund for large companies, a state-backed scheme offering quick loans of up to €500,000 to small and medium enterprises, and a €50bn hardship fund that hands out cash to small businesses, the self-employed and freelancers.

Officials stressed from the start that speed and simplicity in distributing the funds would be the priority. The economy ministry said it had approved 1.1m applications for its self-employed fund in the three weeks since it launched and granted a total of €9bn in aid.

Individual states such as North Rhine-Westphalia and Bavaria have also set up their own schemes. Hubert Aiwanger, Bavaria's economy minister, said last month that getting the funds out fast was the first priority.

"But when we have air to breathe in a few months' time, we will of course check to see whether there were any charlatans who cheated us [and] they will have to pay the money back," he told Bavarian Radio.

But Ms Skierka pointed out that in many cases the aid programmes had no way of verifying applicants' identities. Germany has "struggled with the digitisation of government services . . . for years, and in times of crises like these, such delays really take their toll," she said.

German police have also warned the public to beware of fake emails purporting to come from the World Health Organization or other organisations with ransomware attachments.

On patrol: police officers pass a fruit and vegetable market amid the coronavirus lockdown in Munich on Friday
Michaela Handrek-Rehle/Bloomberg/Getty Images

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Toxic debts

ECB pushes for eurozone bad bank to clean up soured loans

MARTIN ARNOLD — FRANKFURT
JAVIER ESPINOZA — BRUSSELS

European Central Bank officials have held high-level talks with counterparts in Brussels about creating a eurozone bad bank to remove billions of euros in toxic debts from lenders' balance sheets.

The plan to deal with debts left over from the 2008 financial crisis is being pushed by senior ECB officials, who worry the coronavirus pandemic will trigger another surge in non-performing loans (NPLs) that risks clogging up banks' lending capacity at a critical time.

But the idea faces stiff opposition within the European Commission, where officials are reluctant to waive EU rules requiring state aid for banks to be provided only after a resolution process imposes losses on their shareholders and bondholders.

"The lesson from the crisis is that only with a bad bank can you quickly get rid of the NPLs," Yannis Stournaras, governor of the Bank of Greece and member of the ECB governing council, told the Financial Times. "It could be a European one or a national one. But it needs to happen quickly."

Greek banks have by far the highest level of soured loans on their balance sheets of any eurozone country, making up 35 per cent of their total loan books, a legacy of the 2010-15 debt crisis that pushed the country to the brink of exiting the eurozone.

They have cut their bad loans by about 40 per cent in four years, under heavy pressure from the ECB.

But plans by Greece's big four lenders to sell more than €32bn of NPLs — almost half the total in the country — are likely to be disrupted by the coronavirus crisis.

Mr Stournaras said the best way to quickly fix their balance sheets was via a bad bank.

ECB officials have also held talks with the commission's department for financial stability and capital markets.

Senior EU officials have pushed back on the idea, arguing that there are better ways to tackle toxic loans but declined to give further details.

The high-level talks were in their infancy and had been premature, said people with direct knowledge of them.

"We put a stop to them from the EU side," said a person briefed on the discussions. "Nothing is moving."

However, people following the discussions inside the commission did not rule out their resuming at a later stage of the pandemic.

Andrea Enria, chair of the ECB's supervisory board, proposed the idea of an EU bad bank in early 2017 when he was still head of the European Banking Authority.

His idea was blocked by Brussels officials citing state aid rules but he is trying to get the plan off the ground again, said people briefed on the matter. The ECB declined to comment.

Total NPLs in the biggest 121 eurozone banks almost halved in four years to €506bn, or 3.2 per cent of their loan books, by the end of last year.

But Greek, Cypriot, Portuguese and Italian banks still have NPL ratios above 6 per cent.

In March, the commission adopted a temporary relaxation of state aid rules and has since waved through billions of euros in emergency government relief measures.

Brussels is also finalising plans alongside member states to allow countries to inject equity directly into struggling businesses, though in return they will be restricted from paying dividends or bonuses while in receipt of state aid.

Proponents of the bad bank idea hope to make it acceptable under state aid rules by proposing that the toxic loans would have to be sold into the market after a fixed time period with the power to recoup any losses from the lenders themselves.

Spain, Ireland and Germany all set up state-backed bad banks after the 2008 financial crisis to deal with sudden increases in toxic bank debt.

But since then, the EU has introduced the bank recovery and resolution directive, which restricts governments from setting up bad banks except as part of an official resolution process.

35%	€32bn
Level of soured debt on the total loan books of Greek banks	Value of NPLs that Greece's big four lenders had planned to sell

US grocery workers fear growing risks of exposure

Staff complain of lack of proper protection and poor social distancing in busy stores

COURTNEY WEAVER AND ALISTAIR GRAY

Protected: a shop worker in Dallas, Texas, wears anti-virus gear while stocking shelves
LM Otero/AP

Pam Hill took leave from her job as a cashier for the Albertsons grocery store chain in Los Angeles after two of her co-workers tested positive for coronavirus.

Now, after experiencing her own symptoms of the virus, she is awaiting results that will determine whether she can return to work. "I have to go back," she said. "There's no safety net here."

Grocery stores and essential retailers are among the few businesses to escape the downturn. US grocery store sales surged more than 25 per cent between February and March, according to the US commerce department, while food retailers such as Kroger and Ahold Delhaize each reported a 30 per cent or higher year-on-year rise last month.

But while the stores are thriving, the same cannot be said for many of their workers. At least 15 grocery workers represented by the United Food and Commercial Workers International Union, which covers about 900,000 grocery workers and 250,000 meatpacking and food-processing employees, have died from Covid-19. More than 2,200 have missed work because they have tested positive, been in self-quarantine, or been taken to hospital.

"The fact is there is only one way you can reduce the risks for customers and workers: wear masks," said Marc Perrone, president of the union. Yet no big retailer had mandated their usage across all stores, he added.

The UFCW has been campaigning to classify food retail employees as essential workers, giving them access to extra masks and rapid testing for the virus. Some companies have joined the campaign. Albertsons took out a full-page ad in the New York Times in conjunction with the union.

"Albertsons Companies is doing everything we can to prioritise the health and safety of our associates, customers, and communities, and to ensure our customers have access to the food, medications, and other essential goods they need at this critical time," the company said.

"Did [workers] sign up for this kind of thing? No," said Mr Perrone. "We just shouldn't treat them as if they're disposable, that they don't deserve the testing and equipment that's necessary to protect them. That's just wrong."

Most retailers have passed some of their increased revenue to workers, raising hourly wages by $2-$3 during the crisis. They have also offered one-off crisis bonuses to compensate employees for their extra hours and tried to get pay cheques out faster.

They have taken steps to improve employee and customer safety too. Managers have been installing protective shields at checkouts, fitting stores with hand sanitisers and disinfectant wipes and introducing temperature checks for workers. Target cleans its customer touchscreens at least every 30 minutes.

Stores across the country are restricting customer numbers: Aldi is limiting stores to about five shoppers per 1,000 square feet while Kroger is monitoring the traffic using infrared technology.

But some workers and the unions who represent them say the measures have been insufficient and came too late. Critics complain that no big retail chain has mandated that all customers and workers wear masks inside their stores, instead adhering to individual city and state guidelines. Many retailers did not temporarily close locations for sanitisation after confirmed coronavirus cases.

Mr Perrone said stores had experienced a surge in sales due to panic buying. But this has been accompanied by soaring anxiety levels among employees. In a recent survey of union members, 97 per cent said they were concerned about catching the virus, he said.

John Grant, president of UFCW Local 770, said that too many store managers were preoccupied with sales and there were still too many customers in stores, especially in poorer communities.

> 'We just shouldn't treat workers as if they're disposable'

In the Bronx, Jessica, a former employee of Target who asked to be referred to by a pseudonym, said she had struggled for weeks about whether to continue going to work as conditions at the store steadily worsened over the winter and spring. One Tuesday, her manager called to say a vendor she had been interacting with had fallen ill. Jessica told her boss she was not coming back. Multiple employees at the store later tested positive.

In a statement, Target said it had been following guidance from the Centers for Disease Control and Prevention as the outbreak developed.

Jessica said Target had been doing the kind of business it would typically do around Christmas or Black Friday, and had been compensating employees. But she said: "I feel like the money doesn't even matter. I feel like I'm more upset about them not closing the store and completely sanitising it."

Labour markets

Warning of threat to 59m European jobs

BEN HALL — EUROPE EDITOR

Up to 59m jobs in Europe are at risk because of the economic shutdown from coronavirus, according to a report that lays bare the potential threat of lasting damage to European labour markets and economic growth.

Analysts at McKinsey, the consultancy, estimate that more than a quarter of all private sector employment in the EU and UK could be affected. They define workers at risk as those who suffer cuts in hours or pay, temporary furloughs or permanent lay-offs.

In McKinsey's pessimistic scenario — in which social-distancing restrictions are maintained through the summer to contain the spread of the virus — EU unemployment could double to 11.2 per cent by next year and would be unlikely to return to pre-crisis levels until 2024.

European governments are hoping short-term subsidised work schemes modelled on Germany's *Kurzarbeit* system will help shield them from the mass lay-offs under way in the US. But the conditions and take-up rates vary widely between countries, and the longer the shutdown lasts the greater the risk of redundancies.

The IMF forecast a contraction of 7.5 per cent in the eurozone this year with unemployment hitting 10.4 per cent, up from 7.6 per cent. Some economists fear a double-digit slump in the bloc's southern economies.

While Europe may not be shedding jobs on the scale of the US, it is likely to take longer to rehire workers. It took Europe's labour market as a whole 10 years to recover from the financial crisis of 2008-09, although Germany and some other northern economies bounced back far sooner.

"The challenge is that politicians don't have the data or experience of dealing with a crisis like this," said Sebastian Stern, a senior partner at McKinsey. "If we open up retail, what's the impact on the [viral] transmission rate? Nobody knows."

Foreign workforce

Singapore reports spike in infections

Disease spreads quickly among migrants living in cramped dormitories

STEFANIA PALMA — SINGAPORE
KATHRIN HILLE — TAIPEI

Singapore set a daily case record over the weekend as the city state once lauded for its handling of the outbreak struggled to contain the virus's spread among its 1m low-wage migrants.

The new overall infections, peaking at 942 on Saturday and dropping to 596 yesterday, took the total number of cases to 6,588. More than 90 per cent of cases reported over the weekend were among migrant workers living in cramped dormitories, which represent Singapore's largest coronavirus cluster.

The sharp rise in cases — infections have jumped 160 per cent in the past week, — has forced Singapore to change tack after its successful deployment of an aggressive testing regime, self-isolation of infected individuals and contact tracing. A wave of locally transmitted infections has forced authorities to put the island under a near total lockdown.

Migrant workers, mostly from countries including India, Bangladesh and China, account for almost three-quarters of the country's cases, as authorities increase testing in dormitories.

Critics said Singapore did not do enough to prevent the outbreak after a handful of foreign workers tested positive as early as February. About 300,000 labourers live in dormitories, where there can be up to 20 people sleeping on bunk beds in a single room.

Josephine Teo, manpower minister, said when transmissions started earlier this month that, while there was always a risk of contagion in the dormitories, it was "no different from what it is from our own homes". Officials also said they took preventive steps before the outbreak including closing dormitories' communal spaces and staggering meal times and recreation hours.

"It is part of the whole Singapore economic model where we tend to overlook 1m people on our island," said Alex Au, vice-president at Transient Workers Count Too, a non-governmental organisation.

But Rachel Chhoa-Howard, Singapore researcher at Amnesty International, the human rights group, said overcrowding in dormitories made living conditions far riskier than in households, especially during a pandemic. "This may not have been taken into account early enough and it may have led to a rise in infections we're seeing now," she said.

> 'It is part of the whole Singapore economic model where we tend to overlook 1m people on our island'

Gan Kim Yong, Singapore's health minister, admitted last week that the foreign worker dormitories had become "an important front" in the fight against Covid-19.

Authorities have isolated 16 dormitories, in which people are not allowed to leave their rooms for two weeks. They also deployed teams helping larger dormitories with meal delivery and medical support.

About 7,000 healthy migrants working in sectors that are still operating, including "essential" aspects of construction, marine engineering and manufacturing, have been moved out of their dormitories. But the vast majority of workers remain in these structures, with some reporting cramped and unsanitary conditions.

Latin America. Segregation

Nations take radical gender distancing steps

Panama, Peru and Colombia experiment with separating men and women daily

GIDEON LONG — BOGOTA

In their fight against coronavirus, a handful of places in Latin America have taken a radical step to encourage social distancing: they are separating men from women.

Panama, Peru and the Colombian capital, Bogotá, have all experimented with letting men and women out on different days to buy essential goods like food and medicine. The aim is to limit the number of people on the streets at any one time during the coronavirus lockdown.

Panama, with the highest per capita number of Covid-19 cases in Latin America, was the first to introduce the measure. Women are allowed out on Mondays, Wednesdays and Fridays and men on Tuesdays, Thursdays and Saturdays. Everyone has to stay at home on Sundays.

The government says the measure is working. "Without doubt, the separation of men and women has reduced by 50 per cent the number of people moving around the country," vice-president José Gabriel Carrizo said.

Peru implemented the same policy days later but with very different results, so much so that it abandoned it after a week. The Peruvians found women went to shop for food on their allotted days, causing long queues at supermarkets and a lack of social distancing, while the streets were much emptier on "men's days".

Farid Matuk, one of the architects of the scheme, said it had fallen victim to Latin American machismo.

"In the patriarchal world in which we live, certain roles are assigned to women and unfortunately this is not the moment to challenge them," he reflected, saying it might have been better to give four days to women and two to men.

Undeterred by Peru's volte face, Bogotá began segregating by gender this week and so far mayor Claudia López says it is working, although she chastised the city's men for being laxer than the women.

Females only: women queue according to social distancing rules in central Bogotá last week
Nathalia Angarita/Bloomberg

The scheme has its critics, though. Some women complain that if they have to go out on "men's days" — for example, if they work in the health system and are exempt from the restriction — they find themselves outnumbered and uncomfortable. "Under this scheme the little macho-men feel more confident about intimidating us," one Colombian journalist tweeted after saying she had twice been verbally harassed in minutes.

Bogotá's authorities considered transgender people when introducing the measure — they said anyone who identified as a man could go out on "men's days", and vice versa — but LGBT groups have criticised the policy, saying it gives the police carte blanche to abuse the trans community.

In a letter to the mayor, they urged her to scrap the plan and follow the example of other Colombian cities by restricting people's movements on the basis of ID numbers rather than gender.

Ms López's supporters say that would involve police checks of ID cards, increasing the risk of hand-to-hand contagion. Some Colombians have argued that given the scale of the coronavirus pandemic, minority rights have to take a back seat.

The debate has an extra significance because Ms López is Bogotá's first female mayor and the first openly gay mayor in Latin America. She has a long history of campaigning for LGBT rights.

Although some have complained that the measure is draconian, there are so many exceptions to it that its impact is diluted and, on any given day, there are both men and women on Bogotá's streets.

Health workers, police officers, soldiers, security guards, journalists, supermarket cashiers, delivery workers, bank clerks, bus drivers, farmers and diplomats have a free pass to work on any day, regardless of gender.

On the whole, most Bogotanos seem to support the measure, even if they question its effectiveness.

"I'm in favour," one shopper, Matilda Martín, said on Thursday as she queued outside a supermarket with a line of other women and a few rather sheepish looking men.

"We have to use every tool available to fight this thing. But this is Colombia, not Switzerland; a lot of people will simply ignore the rules and go out when they please."

GLOBAL INSIGHT
BEIJING

Don Weinland

Contraction is China's chance to ask whether it needs a growth target

Meeting national growth targets has been a source of pride for Chinese policymakers. Abroad, it has fuelled doubts over the true performance of the world's second-largest economy. Now, after data published on Friday showed the lowest gross domestic product growth in decades and ended an era of uninterrupted expansion, Beijing has an opportunity to revisit the policy.

China's GDP in the first three months of the year plummeted by 6.8 per cent year on year, according to the National Bureau of Statistics, marking a historic contraction. The country has reported such quarterly data since 1992, but the last time it officially acknowledged a year-on-year decline in economic output was during the Cultural Revolution in the 1970s. This time, it is the shock of the coronavirus outbreak that has done the damage.

It has been clear for months that China and the ruling Communist party faced some of their biggest challenges in a generation after undergoing mass quarantines to combat the Covid-19 pandemic that emerged out of Wuhan.

The outbreak led to the postponement of the annual session of China's rubber-stamp parliament that is usually held in early March. The event is used to deliver the year's GDP target, one of the most closely watched indicators for the health of the Chinese economy. With the National People's Congress now delayed until later in the year, China has yet to publish an official goal.

Ma Jun, a policy adviser to the People's Bank of China, argued earlier this year that the national growth targets should be ditched. Setting such a goal as the country reopens after months of lockdown would lead to a flood of stimulus money that could paralyse the banking sector with bad debt, he said.

Wang Tao, head of Asia economics at UBS in Hong Kong, said leaders can improve social stability by playing down the importance of the GDP target and focusing on supporting low-income households and keeping unemployment low.

> 'It is better to focus on normalising activities while keeping the virus under control'

"Indeed, I think the government can either abolish the GDP growth target this year or de-emphasise a specific numerical one," Ms Wang said. "For the rest of this year, it is better for the government to focus on normalising activities while keeping the virus under control."

The growth target has rarely been used by serious economists as an accurate reading of the country's growth rate. It is a signal from policymakers of how many resources they are willing to expend to boost the economy — and the level of reform they will withstand. Lower or flexible targets are often read as a sign of confidence.

The policy has led provincial officials to generate production regardless of the real level of demand, causing the oversupply that has burdened the economy for a decade.

Some argue, however, that the target is built into the system and is difficult to scrap. China's economy is often described as a form of state capitalism that still requires a high degree of planning, said Larry Hu, head of greater China economics at Macquarie. Without a target, therefore, some parts of the system will not function properly.

"There are two options for the new growth target," Mr Hu wrote in a note to investors. "One is to lower it to, say, around 3 per cent. The other is to set a wider range, say 2-4 per cent. They are still waiting now, as they don't want to set a target which is too high or too low."

Abandoning the policy will not be easy politically for Xi Jinping, China's president. Years before he took China's top leadership position, a goal was set to double GDP between 2010 and 2020 — just in time for the Communist party's 100th anniversary. Missing that longer-term target would be potentially embarrassing for a president who has said the party must be a "leader of all". Eventually, whether or not the target exists at all this year will be a better indicator of China's economic confidence than the goal's actual level.

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Crackdown

Hong Kong police arrest pro-democracy supporters

NICOLLE LIU — HONG KONG

Police arrested 14 pro-democracy activists and former legislators in Hong Kong as Beijing swooped to reassert its authority after last year's protests.

Martin Lee, an 81-year-old democratic Hong Kong politician who helped write the city's Basic Law and Jimmy Lai, 71, the founder of anti-Beijing newspaper Apple Daily were among those arrested. Both have been accused of being part of a "gang of four" targeting China.

The arrests on Saturday were made following allegations the activists were involved in organising unlawful assemblies and come as the city is distracted by coronavirus, which ended months of anti-government protests.

Sing Ming, a political scientist at the University, of Science and Technology of Hong Kong said coronavirus could mean a weaker backlash against the arrests with the public preoccupied by concerns about job security and personal safety.

Beijing was also hoping to undermine the political resources of pro-democratic politicians ahead of the legislative council election scheduled for later in the year, Professor Shing said.

More than 7,000 people have been arrested for their involvement in the protests since June, many are charged with rioting which carries a maximum sentence of 10 years in jail.

Former lawmakers Margaret Ng, Albert Ho, Lee Cheuk-yan, Leung Kwok-hung, Au Nok-hin, Yeung Sum, Sin Chung-kai, Ho Sau-lan and activists Raphael Wong, Richard Tsoi, Figo Chan and Avery Ng were also arrested by the police on Saturday.

The Basic Law, the semi-autonomous region's mini-constitution, states that departments directly under the central government should not interfere in local affairs. Opposition politicians have accused Beijing's top office in Hong Kong of infringing on this framework.

Hong Kong police superintendent Lam Wing-ho would not rule out further arrests.

Internal migration

Chaotic response to annual exodus blights Indonesia's battle

STEFANIA PALMA — SINGAPORE
FEBRIANA FIRDAUS — BALI

Semi had a difficult choice to make: stay put and make money in Tangerang Selatan, a satellite city of Jakarta, or return home before the government banned mudik, the exodus of Indonesian migrants to their hometowns at the end of Ramadan.

Ignoring the fear that she might catch Covid-19, the 40-year-old domestic helper braved the 12-hour bus trip back to her husband and three children in Kebumen, in central Java province. "If I didn't return home, then what would have happened to my Lebaran?" said Semi, who goes by just one name, referring to the holiday celebrating the breaking of the fast. "My family was worried I would be trapped in Jakarta."

Semi's dilemma is symptomatic of Indonesia's chaotic response to the coronavirus outbreak. At the end of May, up to 20m people are expected to travel across the largest Muslim-majority nation to celebrate the end of Ramadan but the government has yet to unveil a clear policy on the exodus.

Many migrants, who feared getting trapped or have lost their jobs because of the pandemic, have already travelled home. Their departures from Jakarta, which accounts for about half of Indonesia's 5,136 cases, have raised the risk of spreading the disease to remote areas where healthcare systems are weak.

Analysts warn contagion in a country with a population of 270m — which claimed to have no coronavirus cases for weeks and reported its first infection only last month — could lead to a humanitarian disaster. With 469 deaths, Indonesia has one of the highest mortality rates. "The social distancing regime the country has developed is fragmented, bureaucratic and full of holes, ignoring the advice of most medical experts that containment requires strict and coherent measures," said Marcus Mietzner, associate professor at the Australian National University.

Police hand out masks and sanitisers to locals on the outskirts of Jakarta

Since reporting its first cases in early March, Indonesia has suspended all foreign arrivals, while in Jakarta social gatherings of more than five people have been prohibited, and schools and most workplaces shut for two weeks until April 23.

But Joko Widodo, Indonesia's president, has refused to impose a national lockdown, saying it was incompatible with the population's culture. Rather than banning mudik, Mr Widodo has urged migrant workers not to leave.

His communication strategy "has been one of the worst of any leader in the democratic world", said Mr Mietzner. "In essence, his eclectic strategy may add up to the herd immunity approach, but he has not explained this at all in his press conferences."

A shortage of intensive care units and ventilators has also raised fears about Indonesia's ability to deal with the disease.

Yurdhina Meilissa, chief strategist at the Centre for Indonesia's Strategic Development Initiatives, said insufficient investment had left the healthcare sector unprepared. "Without a significant change in the public healthcare strategy, we will lose [the battle against coronavirus]," she said.

Indonesia has conducted just 36,431 tests, which suggests contagion could be worse than official numbers reveal.

Kebumen, Semi's hometown of 1.3m people has only two ventilators and two intensive care unit beds, according to the town's health department. Getting results for swab tests takes days.

Meanwhile, the outbreak has already claimed Aldi Setiyadi's job as a sales assistant in a Jakarta shopping centre.

"My employer just announced it in our WhatsApp group," said Mr Aldi, 21, who was forced to return home to Lampung province on the island of Sumatra.

Migrant returnees have been accused of spreading the virus but Mr Aldi said he had no choice but to leave Jakarta.

"If we don't have a job, how can we feed ourselves?" he asked.

ENTRIES
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The FT and McKinsey & Company are delighted to announce that the 16th annual Business Book of the Year Award is now open for submissions.

This important Award is now well established as the pre-eminent business book prize regularly attracting over 400 entries annually. The deadline for entries is June 30, 2020.

The £30,000 Award will go to the author who is judged to have provided 'the most compelling and enjoyable insight into modern business issues'. Each of the other shortlisted authors will receive a £10,000 Award.

For further information on the Award, the judges, previous winners and how to enter, visit:

www.ft.com/bookaward

#BBYA20

Megan Greene This is no time to create zombie companies by bailing out the oil industry ➔ OPINION

Companies & Markets

Uber to revive goods delivery service in hunt for revenues

- Move follows online groceries drive
- Two initiatives to begin this week

TIM BRADSHAW — LONDON
DAVE LEE — SAN FRANCISCO

Uber is reviving an attempt to offer deliveries of goods as well as people and food, as it searches for new sources of revenue during the coronavirus crisis.

Its latest effort to deliver items ranging from medical supplies to pet food via two new services, Direct and Connect, follows a recently accelerated push into online groceries.

The San Francisco-based company withdrew its financial guidance for 2020 last week, citing the "evolving nature" of Covid-19 and resulting "uncertainty".

Dara Khosrowshahi, Uber's chief executive, said it was "leaning in to delivery at Uber speed". However, after abandoning a similar concept two years ago, the company has cautioned that its new logistics services may not outlast the current lockdown if the car-booking service cannot run the operations profitably.

> 'We've been looking for new earning opportunities for drivers'
>
> Dara Khosrowshahi, Uber CEO

This week, Uber will begin testing the two initiatives, which it hopes will better utilise drivers and couriers who have been left idle because of the drop in demand for booking cars and ordering food in many markets.

Uber Direct will open its on-demand booking platform to retailers and other businesses that want to arrange speedy delivery to customers or suppliers. Initial partners during the pilot include Cabinet, a New York-based provider of over-the-counter medicine; Petbarn, an Australian pet food supplier; and Portugal's postal service, CTT. It will also deliver medication in South Africa through a tie-up with the Bill & Melinda Gates Foundation and the local health service.

Uber's second pilot, Connect, will offer the in-app option to use its drivers to send personal items across town, allowing people to share their stockpiled toilet roll with needy friends or ship a laptop to a colleague. The service, which will be "contactless" so as to ensure safety, is on trial in 25 cities across the US, Australia and Mexico.

"Throughout this crisis, we've been looking for new ways our platform can help move essential goods for businesses and consumers, while providing new earning opportunities for drivers," said Mr Khosrowshahi. "Our primary focus is the immediate: quickly adapting our technology to meet the evolving needs of communities and companies."

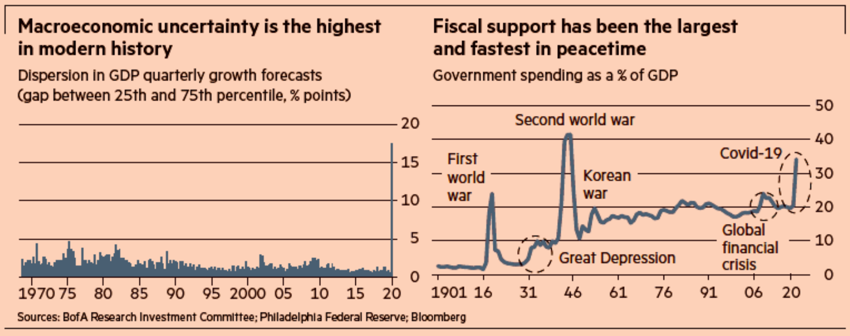
Other app-based transport services have made similar attempts to diversify during the pandemic. China-based Didi launched a grocery delivery service in 21 cities last month, while food ordering app Meituan is offering "instashopping" that ships new Huawei phones to customers in 30 minutes.

Uber last attempted to create such a courier service back in 2015, when it was still led by Travis Kalanick, who was later ousted from his position as chief executive. "If we can get you a car in five minutes, we can get you anything in five minutes," Mr Kalanick told Vanity Fair in 2014. UberRush launched in New York, Chicago and San Francisco, but was shortlived and closed in mid-2018.

One trend did emerge: a popularity among restaurants who had wanted to offer delivery but were reluctant to take on extra employees. Eventually, Uber diverted its resources into Uber Eats.

Lessons from history Coronavirus creates most economic uncertainty in decades

Luke Sharrett/Bloomberg



Macroeconomic uncertainty is the highest in modern history

Dispersion in GDP quarterly growth forecasts (gap between 25th and 75th percentile, % points)

Fiscal support has been the largest and fastest in peacetime

Government spending as a % of GDP

Sources: BofA Research Investment Committee; Philadelphia Federal Reserve; Bloomberg

ROBIN WIGGLESWORTH — OSLO

The global economic outlook is the murkiest in modern history, with uncertainty over the coronavirus outbreak's ultimate impact causing wild divergences between forecasts.

The dispersion in macroeconomic estimates is the greatest since at least the 1960s, according to Bank of America.

The IMF last week forecast that the global economy would swing from a 2.9 per cent growth rate in 2019 to a contraction of 3 per cent this year. That is down from a forecast in late January for a 3.3 per cent expansion of global economic output, and would constitute the most severe recession since the Great Depression of the 1930s.

The IMF warned that the crisis, would also leave more lingering economic scars than many analysts expect. "There remains considerable uncertainty around the forecast, the pandemic itself, its macroeconomic fallout and the associated stresses in financial and commodity markets," it said.

However, governments and central banks have gone to extraordinary lengths to reduce the economic damage. US lawmakers have passed a $2tn stimulus package, which has led to the fastest and biggest lift in peacetime US public spending relative to gross domestic product, according to BofA.

"The key lesson from 1929 and 2008 is that big, fast policy action is essential to avoid [a] depression," the bank said in a report. "'Targeted' measures stink of miserly austerity; only indiscriminate, abundant largesse can 'flatten the curve' of personal and corporate bankruptcies." The US, the analysts said, had "learnt that lesson".

Disney halts wages for almost half its workforce

ANNA NICOLAOU — NEW YORK
ALEX BARKER — LONDON

Walt Disney will stop paying more than 100,000 employees this week, nearly half of its workforce, as the world's biggest entertainment company tries to weather the coronavirus lockdown.

Suspending pay for thousands of so-called cast members will save Disney up to $500m a month across its theme parks and hotels, which have been shut in Europe and the US for almost five weeks.

But slashing fixed costs in a more severe way than other theme park owners, such as NBCUniversal, has raised reputational risks for the century-old empire behind Mickey Mouse.

The decision leaves Disney staff reliant on state benefits — public support that could run to hundreds of millions of dollars — even as the company protects executive bonus schemes and a $1.5bn dividend payment due in July.

By contrast, some big multinationals, including L'Oréal and Total in France, have vowed to forgo state aid in a show of solidarity with taxpayers.

Disney has in the past month raised debt and signed new credit facilities, leaving it with about $20bn in fresh cash to draw upon for a downturn.

It made nearly $7bn in operating income from its parks, experiences and products business last year, making up nearly half of all operating profits. Disney shares have fallen by a quarter since the outbreak of the virus.

"With labour accounting for approximately 45 per cent of operating expenses and 33 per cent of total expenses, we assume notable savings," said JPMorgan's Alexia Quadrani, who estimates the furloughs, alongside other cost cuts, will save Disney about $500m a month.

Disney will provide full healthcare benefits for staff placed on unpaid leave. From April 19 onwards, it urged employees to apply for the extra $600 a week of federal support available.

Bob Iger, Disney's executive chairman, gave up the remainder of his $3m salary for this year, while Bob Chapek, who recently replaced Mr Iger as chief executive, will forgo half his $2.5m base salary. Disney protected incentive schemes, which account for most of the executives' pay. Mr Iger earned $65.6m in 2018 and $47m last year.

Additional reporting by Domitille Alain in Paris

Media. Screen time

Netflix enjoys roaring success during lockdown

Streaming service reaches new highs ahead of earnings as investors ignore 'junk' rating

ANNA NICOLAOU AND ERIC PLATT
NEW YORK

Residents of New York, Los Angeles and Chicago woke up on March 20 to life under lockdown, as the coronavirus crisis meant millions of Americans were ordered to stay home.

That same morning, Netflix added seven new programmes to its platform — among them a docu-series about the lurid life of a zoo operator named Joe Exotic. In the next 10 days, *Tiger King* went on to become a smash hit, with more than 34m Americans tuning in, according to Nielsen.

In results tomorrow, Netflix will kick off earnings season for media companies, giving investors the first look at how the global pandemic has affected the entertainment business.

For the past year, investors and Wall Street analysts had grown increasingly worried about Netflix's negative cash flow, slowing US subscriber growth and lavish spending on content.

Meanwhile, Disney soared, as chief executive Bob Iger pushed into Netflix's territory with the launch of its own streaming service, called Disney+. Over the course of 2019, Disney's stock price increased by 35 per cent while Netflix shares gained only 20 per cent, underperforming the broader stock market.

Then the coronavirus pandemic hit, and this dynamic — like many others across the business world — has been flipped upside down. Three out of Disney's four businesses are in peril, as theme parks and cinemas are shut and a slump in advertising hurts television. But Netflix, which does not run adverts, is benefiting from a surge in streaming.

Netflix has become one of the rare businesses that is not only surviving but is thriving in the stay-at-home era. Its shares reached record highs in the past week as its market capitalisation jumped to $192bn, above that of corporate giants such as ExxonMobil and Cisco, and neck-and-neck with Disney.

That pattern is playing out in bond markets. Netflix bonds are junk-rated, while Disney has an A credit rating. But in the crisis, Disney's borrowing costs have risen while Netflix's have fallen.

A 10.5 year Netflix bond now yields 3.6 per cent, down from a peak of almost 5 per cent in October. Remarkably, this is in the same range as the 10-year bond Disney clinched last month with a coupon of 3.8 per cent, despite the two companies' wide disparity in credit rating.

"I would rather be in Netflix [bonds] all day long at 4 per cent or sub 4 per cent" than in traditional media, said Jack Parker of asset manager Diamond Hill. "One of the backstops of this bond is the equity. The market cap on top of you is astronomical. And if you believe the debt is the first in the capital structure, which it is, it gives you a massive margin of safety."

Mr Parker believes that "the stay-at-home demand is crazy . . . particularly for Netflix, which is the most popular thing in pop culture".

Bernstein analysts also argue that the credit agencies "have got it backwards", noting that they rate Netflix bonds at double B minus, or "junk" level, while the struggling media group ViacomCBS is rated at triple B, giving it investment-grade status.

But public markets are signalling that ViacomCBS debt is more risky than Netflix. Recently issued ViacomCBS 10.5 year notes were priced at a 5.1 per cent yield, above the 4.5 per cent that Netflix's equivalent bonds are trading at.

Netflix sceptics have always pointed to the frothy-seeming multiple of its shares and high debt load, neither of which have gone away. Despite trading about the same market value, Netflix made $20bn in annual revenue last year compared with Disney's $70bn. A valuation of nine times sales is well above even other internet stocks.

While Nielsen and other data providers have released figures depicting a surge in streaming during quarantine, Netflix is not immune to the economic destruction. As part of the lockdown, Hollywood lots went dark in March, delaying production of Netflix shows such as *Stranger Things* and *The Witcher*.

In a prolonged shutdown Netflix could run out of new programmes, a problem the company has not previously had to cope with. Viewers might cancel their subscription and try another service.

Captive audience: millions have watched 'Tiger King' on Netflix

There is no shortage of alternatives, with two more streaming services, Comcast's Peacock and Quibi, launched this month and another new rival, HBO Max, arriving next month.

So far, Netflix has shown no signs of slowing its voracious release schedule. This week alone the company added 13 shows and films, with another dozen scheduled for the rest of the month.

It may also be able to snap up other content on the cheap. Many Hollywood directors have previously clung to releasing their movies in theatres over streaming; but now with cinemas shut indefinitely and theatre owners headed for bankruptcy, studios are scrambling to sell their movies to Netflix.

The streaming company has seen an influx of pitches from studios in recent weeks, according to people familiar with the matter, as producers look to at least make some return on their investment.

Tomorrow Netflix is expected to report it added 7.4m subscribers in the three months ending in March. The company is also likely to reveal more details of its content pipeline during an analyst call with senior management. While Reed Hastings and other Netflix top brass typically pre-tape a video Q&A from the company's offices, this time they will dial in from home.

Netflix ended 2019 with about $5bn on its balance sheet, and also holds a $750m credit line, which it has not drawn. Analysts expect that these backstops could get it through the next six months to a year, if needed.

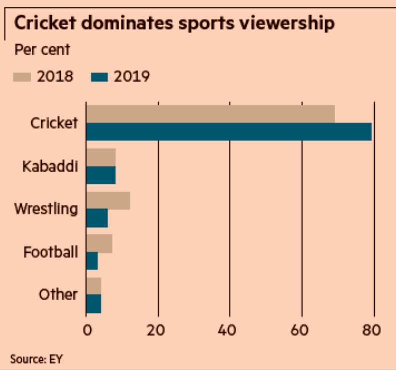
IPL cricket stumped by pandemic restrictions

Indefinite postponement of the $7bn league's 2020 season will hurt teams, players, broadcasters and Indian economy

BENJAMIN PARKIN — NEW DELHI
SAMUEL AGINI — LONDON

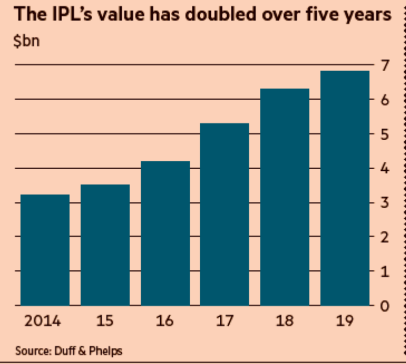
Weight on his mind: Australia cricketer Pat Cummins trains at home in Southern Highlands while unable to play in the lucrative IPL — Ryan Pierse/Getty Images

Cricket dominates sports viewership



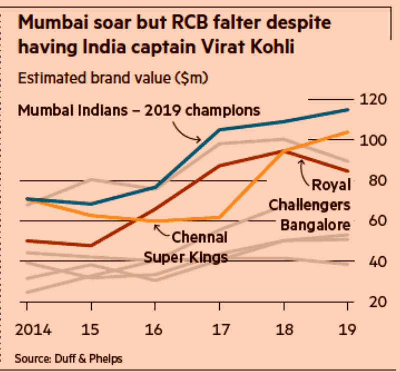
Source: EY

The IPL's value has doubled over five years



Source: Duff & Phelps

Mumbai soar but RCB falter despite having India captain Virat Kohli



Source: Duff & Phelps

In December, the tycoons and celebrities that own the Indian Premier League's eight teams gathered in a Kolkata banquet hall for a player auction ahead of the upcoming season. Among the attendees were Bollywood stars and even the Ambani family, India's richest and owners of the Mumbai Indians franchise.

In a bullish mood, the teams competed to fork out ever larger sums for the world's top cricketing talent. The boldest move was the decision of the Kolkata Knight Riders — owned by India's biggest film star Shah Rukh Khan — to spend Rs155m ($2m) on Australian fast bowler Pat Cummins, the highest ever fee for an international player.

But Covid-19 travel restrictions mean that Mr Cummins, instead of debuting this week in front of thousands of ecstatic Indians in the muggy Kolkata heat, has been spending time at his farmhouse in Australia, exercising at a home gym, playing with his dog and feeding cows.

When, if at all, he will be making the trip to India and receiving his sizeable pay package is unclear. The IPL, the world's biggest, brashest and most lucrative cricket league, was postponed indefinitely after Prime Minister Narendra Modi announced this week that the country would remain in strict lockdown until May 3 to combat the spread of the coronavirus.

"It's a no-win situation for everybody. The franchisees invested a hell of a lot of money," said Farokh Engineer, a celebrated former India batsman who was involved in the early days of the IPL. "The IPL players are treated like demigods [and everyone] mints money . . . I feel sorry for Pat Cummins. Every ball he bowls he stands to earn [thousands]".

Since it started in 2008, the IPL has revolutionised cricket around the world. Its high-octane brand of short-format Twenty20 cricket, in which teams bowl their 20 overs egged on by cheerleaders and thumping Bollywood anthems, is more evocative of American sports than genteel English county cricket.

The young league has weathered its share of disruption, including match-fixing scandals, team bans and bitter legal disputes. That has not diminished its success. The IPL's ability to tap the enormous Indian market, where cricket accounts for 80 per cent of the 1.4bn nation's sports consumption, has flooded the sport with funds in a way few could have imagined.

Star India, owned by Disney, in 2017 beat Sony and Facebook to secure the IPL rights for five years at a cost of $2.6bn. That put the tournament close to the English Premier League on a cost-per-game basis, according to EY.

For brands, meanwhile, it has become the most important promotion platform in India. Companies such as Spotify or Naspers-backed food courier Swiggy run IPL-themed campaigns. MG Motors, owned by Chinese automaker SAIC, tied its India launch to last year's IPL with adverts featuring actor Benedict Cumberbatch.

"IPL has a multiplier effect," said Jake Lush McCrum, chief operating officer of the Rajasthan Royals, which counts England's Jos Buttler, Ben Stokes and Jofra Archer among its players. "It contributes towards the economy in India and globally with a huge amount of money through sponsorship, broadcast, hospitality, tourism and much more."

The IPL is valued at nearly $7bn, according to consultancy Duff & Phelps, and has spawned copycat leagues around the world. Top players have been catapulted to financial and celebrity status previously hard to imagine, making stars of players such as India's Hardik Pandya and the West Indies' Kieron Pollard.

"You get fame. You get money," said Ayaz Memon, a prominent cricket writer. "You can fast-track your way into your national league. Whatever league you may be playing, there's no comparison with the IPL."

All that is under threat as coronavirus brings economic activity, movement of people and indeed sports events around the world to a halt. In football, the English Premier League is in limbo after being suspended midseason, the Tokyo Olympics have been pushed back a year and Wimbledon's tennis event has been cancelled. The status of the Hundred, the inaugural season of a new 100-ball cricket tournament due to start in the UK in July, is also uncertain.

Sachin Tendulkar, considered one of the world's greatest cricketers and also a former IPL player, told the FT: "Not just IPL, several sporting events across the world have been cancelled. I feel that's the right thing to do. Right now, the priority is saving lives. I am glad that authorities representing IPL and all other sporting bodies have taken the right call of cancelling or postponing their events."

> 'It's a no-win situation for everybody. The franchisees invested a hell of a lot of money'

The Board of Control for Cricket in India, the sport's national governing body, said on Thursday that the season would be suspended until further notice, but left the door open to rescheduling for later in the year.

"BCCI will continue to monitor and review the situation regarding a potential start date," it said.

"We've all got our fingers crossed because having no IPL at all would be a huge, huge opportunity loss for Star, BCCI and all the franchises," said Parth Jindal, chairman of the Delhi Capitals, whose players include Jason Roy and South African bowler Kagiso Rabada.

JSW, an industrial conglomerate run by the Jindal family, in 2018 bought a 50 per cent stake in the Delhi team. "This year will be painful in terms of our ownership in the franchise . . . if the IPL doesn't happen," Mr Jindal said, adding that "the long-term value of the IPL is very much intact".

But industry veterans struggle to see how it could go ahead. Even assuming that travel restrictions and social distancing rules in India and elsewhere are eased, the upcoming monsoon season makes the IPL unplayable from June.

That leaves the possibility of a truncated IPL in the autumn that would clash with international tournaments like the Asia Cup, potentially setting up a stand-off between the BCCI and other cricketing bodies.

"It'll be absolute chaos," said Simon Hughes, a former cricketer and broadcaster. "The fact they're trying to squeeze it into a slot in September/October will mean a massive conflict for players' priorities. Some are contracted to play for their countries and they'll have to give up" IPL money to do so.

The determination, however wishful, that the tournament go ahead reflects the significant repercussions of an outright cancellation. Executives say this could force the BCCI, teams and broadcasters into difficult talks to renegotiate existing financial contracts and limit losses. Some teams, for example, face losing virtually all their income but still have bank loans to service.

It is particularly bad news for Star, which moved to Disney after it acquired 21st Century Fox last year, and has bet heavily on cricket to fuel its success in India.

The IPL has given its streaming platform, Hotstar, an edge over local rivals such as Netflix or Amazon: 300m viewers watched the IPL on Hotstar last year, even putting it ahead of YouTube in terms of monthly viewers at the time. Disney this month launched Disney+ in the country, which it has linked to Hotstar. "The kind of record that Star has paid to take the IPL away from Sony, and the kind of advertising dependence the network has on this property is huge," said one rival media executive. "It's not as if you can make it up by amping up other sports."

The Rajasthan Royals even got as far as holding a training camp in February before the travel restrictions went into effect. One upshot, Mr McCrum said, was that the team could use the video footage they gathered to keep fans — who often lack the loyalty of better established European sports fans — interested in the club through the outage. "We have enough content to last for months, which is extremely valuable given the current situation," he said. "Other teams who did not have a camp in time are struggling a little more to keep their fans engaged."

Industry executives ultimately expect the delay to only increase Indian viewers' hunger for IPL, whether it happens later this year or only next year.

But they fear even this tournament could struggle to bounce back financially from the sizeable hit India's multi-week lockdown could deal to the economy, which risks scaring off some of the investors and advertisers that have poured funds into the IPL on the back of India's roaring economic growth in recent years.

"The marketing budgets of most of the companies will come right down, looking at the economy," said Deep Dasgupta, a retired player and former IPL executive. "Even if IPL happens, it will be a little different."

Financials

Flagship Renaissance fund dabbles in bitcoin

ROBIN WIGGLESWORTH — OSLO
ORTENCA ALIAJ — NEW YORK

Medallion, Renaissance Technologies' flagship hedge fund, has dipped its toes into the wild world of cryptocurrency trading in a sign that the computer-driven investment group is willing to play in more esoteric markets to generate its industry-leading returns.

The $75bn hedge fund group disclosed in a regulatory filing that Medallion, a highly successful fund only open to Renaissance's own employees, was dabbling in bitcoin, the original cryptocurrency.

While Renaissance said that it would limit its trading activities to cash-settled bitcoin futures traded on the CME, the Long Island-based investment group founded by former Cold War codebreaker Jim Simons stressed the risks of the nascent asset class.

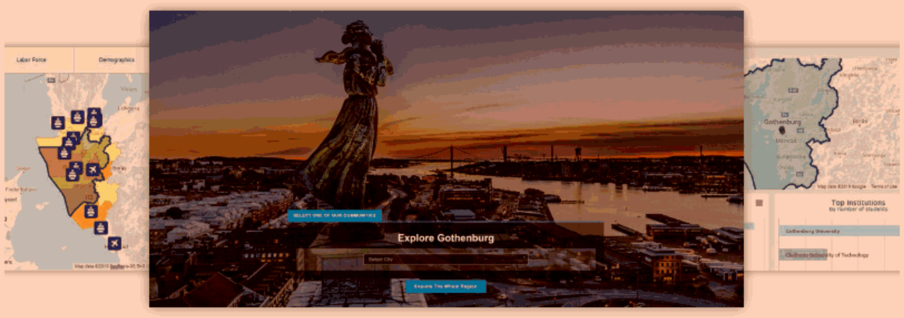
"The underlying commodity for these futures transactions, bitcoin, is a relatively new and highly speculative asset," Renaissance said in the filing.

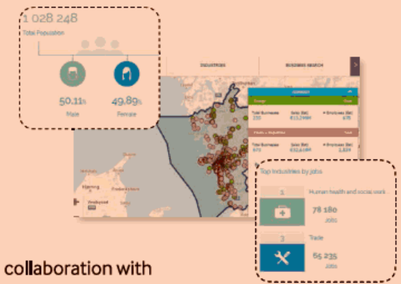
"Bitcoin and futures based on bitcoin are extremely volatile, and investment results may vary substantially over time."

From the filing, it is not clear how active Renaissance is in bitcoin or whether it has bought any of the cryptocurrency futures, only that it is now "permitted to enter into bitcoin futures transactions", according to a separate section on the risks and trading styles of its various funds. Its other funds, which manage money for external investors, make no mention of bitcoin. The hedge fund declined to comment.

Cryptocurrencies such as bitcoin remain at the fringes of the mainstream finance world but Wall Street has been gradually bringing them into the fold.

Big trading firms such as DRW are now making markets in cryptocurrencies and even traditional investment groups such as Fidelity have launched "digital asset" businesses. The CME's bitcoin futures contract launch in 2017 was a big moment, allowing more mainstream investors such as Renaissance to bet with bitcoin for the first time.





Financials

Norwegian oil fund hit by expenses scandal

Chief executive accepted flight from billionaire set to replace him in role

RICHARD MILNE — OSLO

The incoming and outgoing chief executive of Norway's $1tn oil fund are embroiled in an expenses scandal that raises questions over the leadership of the world's largest sovereign wealth fund.

Yngve Slyngstad, who is due to step down in September after 12 years of leading the oil fund, admitted at the weekend that he should not have accepted a charter flight home from a seminar paid for by Nicolai Tangen, the hedge fund billionaire who last month was tapped to become chief executive of the oil fund.

Norges Bank, Norway's central bank that houses the manager of the fund, said it was investigating if Mr Slyngstad had broken its ethical rules while its supervisory board is looking into whether to hold an extraordinary meeting to look at the selection of Mr Tangen.

"Yngve Slyngstad has stated that he was invited as part of the bank's operations," said Oystein Olsen, the central bank governor who last month chose Mr Tangen as Mr Slyngstad's successor. "Slyngstad points out that he should have taken scheduled flights home covered by Norges Bank."

The affair raises questions about the selection process for the oil fund's chief executive as well as the often cosy relations at the heart of Norway's financial elite. Mr Tangen's background as a billionaire fund manager and his relations to various senior Norwegian officials were already under heavy scrutiny from politicians in Oslo.

Norway's attorney-general, who also attended the seminar, has to stand down in matters regarding Mr Tangen due to their friendship, the office of prime minister Erna Solberg told local media at the weekend. The oil fund said Mr Slyngstad was not involved in the process to pick Mr Tangen.

Mr Slyngstad told VG, the Norwegian tabloid that broke the story over the seminar and flight, that he had talked to Mr Tangen about the position at the seminar and that "I can have said to him and all others that were there that we needed bright people in that position" but that he had not suggested he apply.

Mr Slyngstad added in a statement issued by the fund that he was invited to give a lecture at the seminar organised by Mr Tangen at the Wharton School of business at the University in Pennsylvania in November, just days after Mr Slyngstad announced his resignation. Norges Bank paid for his flight to the US and train to Pennsylvania but Mr Tangen paid for a charter flight back to Oslo for Mr Slyngstad and others, as well as his hotel and food. "Of course, I should have taken the train back to New York and a scheduled flight home."

Asked by the Financial Times if he had caused trouble for Mr Slyngstad, Mr Tangen declined to comment.

Julie Brodtkorb, chair of the supervisory council of Norges Bank, said it would decide tomorrow whether to hold an extraordinary meeting to look into whether the executive board of the central bank followed the correct procedure in appointing Mr Tangen.

Market Questions. Global economy

Europe braced for another sharp drop while focus turns to next moves by US and China

FT REPORTERS

The People's Bank of China in Beijing cut its medium-term lending facility rate by 0.2 percentage points last week, making an equal fall in the loan prime rate today all but certain

Tingshu Wang/Reuters

Is Europe's economy still in freefall?

Economists are expecting a further drop in business activity across Europe in April, after a record-breaking pace of decline in March. The purchasing managers' index for the eurozone — a closely watched gauge of economic growth — crashed to an all-time low of 29.7 last month, far below the 50 mark that separates contraction from expansion. The UK equivalent fell to 36.

April's figures scheduled to be published on Thursday are forecast at 26 for the eurozone and 32 for the UK, signalling another sharp decline in activity. "Due to the time period when the surveys were conducted, it is possible that both may slip even further this month," said Cathal Kennedy of RBC Capital Markets. "Some of the March survey responses would have been collected before the most stringent lockdown measures were introduced."

Even the bleak PMI figures may be masking the true scale of the fall, according to Mr Kennedy. The surveys track the balance of companies experiencing a reduction in activity, but respondents do not record how much their business has shrunk.

Even a sharp pick-up similar to China's figures last month would signal only a stabilisation of activity at very low levels rather than a recovery, according to Nomura economist George Buckley.

"At some point these numbers are going to rebound sharply, although April is likely to be just as bad as March," he said. "But even a figure of around 50 should not be taken as a sign we are out of the woods." *Tommy Stubbington*

Will a deluge of Treasury supply mean higher rates?

Today, the Treasury department will auction off more than $150bn of short-dated securities, which mature in one year or less.

In recent weeks, the Treasury has flooded the market with these Treasury bills, as it has begun to finance the historic $2tn relief package agreed to by US legislators late last month.

Analysts say the market has so far digested this glut of new supply with little trouble, given the insatiable appetite for haven assets during the economic uncertainty that has accompanied the coronavirus outbreak.

Few anticipate a significant rise in rates in the long term, even as the department ramps up Treasury supply to $3.5bn over the next two years, as is forecast by strategists at TD Securities. Given that the Federal Reserve has agreed to buy an unlimited quantity of Treasuries, to ensure the smooth functioning of the world's largest debt market, the US central bank is expected to guzzle up most of the new supply.

According to TD Securities, the Fed will snap up $3tn in Treasuries by the end of 2021 — with $2.4tn purchased in 2020 and another $600bn by the time 2021 wraps up.

That means low borrowing costs are here to stay, according to Brian Levitt, global market strategist at Invesco, not least because economic activity is set to collapse even further this year.

"Interest rates will remain low, reflecting what will be a slow growth environment," he said. "The Treasury will have no issue funding [the stimulus programme]." *Colby Smith*

How will China's central bank address the coronavirus fallout?

After data on Friday showed China's economy suffered its first contraction in four decades at the start of this year, with a 6.8 per cent slide from the same period last year, attention is turning to how Beijing hopes to undo the economic damage wrought by coronavirus in the months ahead. One answer arrives today.

The Loan Prime Rate, China's lending benchmark, introduced last year, is announced on the 20th of every month.

The one-year LPR is an average of lending rates that 18 commercial banks extend to their best customers, but its floor is set by the People's Bank of China through its so-called medium-term lending facility rate, which it cut by 0.2 percentage points last week.

Since its introduction, the LPR has followed the MLF rate lower every time the latter has been cut, making an equal fall by the former all but certain today. But that still leaves the question of what comes next.

With Chinese banks' profits under serious pressure as they carry out Beijing's orders to lend to struggling companies and at lower rates, deposit rates are the logical next front in China's economic war against the pandemic.

"For China, we still have a bit of policy room for rate cuts," said Michelle Lam, greater China economist at Société Générale. The French bank noted ahead of the MLF rate cut last week that reductions to China's benchmark deposit rate "seem inevitable, if not imminent, as banks need help to lower their funding costs". *Hudson Lockett*

Oil & gas

Hin Leong failed to show $800m losses in accounts

NEIL HUME AND STEFANIA PALMA

Hin Leong Trading, the Singapore oil trader that has filed for bankruptcy protection, suffered $800m of losses that were not reflected in its financial statements on the instruction of its founder Lim Oon Kuin.

In a filing to Singapore's High Court, Mr Lim said he had directed the company's finance department not to disclose the losses, which were sustained in futures markets.

"The payments made by HLT to satisfy margin calls made in respect of such losses were reflected as 'accounts receivables' and remained recorded as such after the losses were realised," Mr Lim said in a signed affidavit seen by the Financial Times.

He also revealed that he had sold a "substantial part" of the company's oil inventories and used the cash as general funds even though it was the subject of inventory financing agreements with banks. "As a result, there is a large shortfall of inventory as compared to the quantum of inventory which has been secured in favour of the bank lenders who had provided inventory financing," said the affidavit.

In a separate filing, Mr Lim's son Evan, who runs the family's shipping business Ocean Tankers and is also a director of Hin Leong, said he was not "personally aware of how and why these losses were not reflected, as I was not involved in the finance function which was supervised by my father".

> 'There is a large shortfall of inventory as compared to [that] secured in favour of the bank lenders'

Mr Lim and his son did not immediately respond to requests for comments. There was also no response to emails sent to Hin Leong and Ocean Tankers.

Rajah & Tann, one of Hin Leong's legal advisers, said it was unable to comment as the matter is before the courts.

Until now it had not been clear what caused Hin Leong's financing issues. While the spectacular collapse in oil prices and plummeting fuel demand caused by coronavirus played a part, the court filings show the company's troubles ran much deeper.

The affidavits show Hin Leong had total liabilities of $4.05bn, against assets valued at just $714m at the end of January, while its inventory was worth $141m on April 9 compared with $1.277bn in its accounts for the year to October 31.

The plight of Hin Leong, founded in 1963, has sent shockwaves through the commodity trading industry. It is one of the largest suppliers of bunker, or ship fuel, in Asia and an active participant in the market-on-close system, which is used by traders to set oil prices in the region.

The privately owned company filed for bankruptcy protection on Friday night after failing to reach an agreement with its lenders on a debt moratorium.

It has debts of $3.85bn. HSBC has the biggest exposure at $600m, followed by ABN Amro at $300m, while Société Générale has lent it $240m. Singaporean banks — DBS Group, OCBC Bank and United Overseas Bank — have exposure of $680m.

Blockchain. Cryptocurrency

Facebook's Libra curbs its ambitions to overcome regulatory resistance

Backers remove key tenets of proposal that were intended to create a rival to the dollar

KIRAN STACEY — WASHINGTON
HANNAH MURPHY — SAN FRANCISCO

A Facebook-led digital currency was supposed to change the world.

"More than a billion people around the world don't have access to a bank account," chief executive Mark Zuckerberg told Congress last year, "but could through mobile phones if the right system existed . . . I believe that this problem can be solved and Libra can help."

Now, however, it seems that Libra will not change much beyond Facebook itself — if indeed it happens at all.

This week, almost a year after the project was launched, its backers unveiled "Libra 2.0". As part of the revamped plans, they have removed key tenets of the initial proposal, which were intended to help turn the digital coin into a global currency to rival the dollar, but also threatened to generate insuperable regulatory resistance.

"The original vision for Libra was one with wild crypto dreams of private money, free of regulation," said David Gerard, a historian of digital currencies and author of *Attack of the 50-foot Blockchain*.

"This was never going to fly. Facebook is a real, touchable company. You can abuse people's private information — but governments take the money very seriously." He added: "I can see the new Libra working as an ordinary, regulated payments processor — PayPal, but it's Facebook."

Libra 2.0 departs from its original formulation in several key ways, each designed to overcome regulatory and political resistance.

Firstly, instead of creating a single new currency, Libra plans to launch a series of different digital coins, each backed by a different government currency one for one. It will also build a Libra coin that is a "digital composite" of some of those coins, which will be available for cross-border transactions and in countries with no digital currency.

At a stroke, the association has abandoned its attempts to create a floating digital currency that could even have rivalled the dollar. Instead, its coins will fluctuate according to what is happening in the markets for physical currencies. It was this policy that had sparked concern among politicians and central bankers over whether the project could imperil the stability of existing currencies.

Secondly, Libra is scrapping its ambitions to move to a "permissionless" system, whereby anybody could help run the network, and no single authority would have control, as was the original vision of bitcoin.

Thirdly, the association that runs the coin will now vet any wallet that is launched on the network, and beef up its own scrutiny of what is happening there, rather than leaving it to local regulators.

These latter two concessions are designed to eliminate the criticism that by allowing anyone to operate on the network, Libra was opening itself up to being used by criminals to launder money.

Dante Disparte, Libra's vice-chairman, told the Financial Times that the coin's digital nature might even make it easier to monitor than a physical currency. "There are certain things you could do with a blockchain payment system [like Libra's] that you cannot with alternatives, such as geofencing politically sanctioned countries, blocking suspicious addresses, identifying suspicious activity in [close to] real time," he said.

Facebook now plans to launch a series of different Libra coins

Crypto enthusiasts have long argued for a truly unregulated, decentralised global currency, which users can use for any type of "censored" transaction, whether procuring drugs or simply buying something online without a bank account. For them, Libra's changes mark the death of a dream.

"Libra 2.0 is likely to be less compelling to the crypto developer and user community as it will lack 'censorship resistance' — arguably the most important and unique feature of blockchain networks like bitcoin and ethereum," said Garrick Hileman, head of research at crypto wallet company Blockchain.

Some believe that by removing the most controversial parts of the original proposals, Libra has managed to take the heat out of the debate surrounding its implementation while also retaining its central commercial value to Facebook. The social media platform has been ramping up efforts to facilitate payments across its platforms, including WhatsApp and Messenger.

"If you are Facebook and you want to grow, it would be really useful to have a functional, stable, cross-border payments system just to be used on the platform itself," said Stephen Palley, a partner at the Washington law firm Anderson Kill. "I wouldn't be surprised if this was the plan all along."

Others, however, warn the details of the scheme still pose problems.

Sylvia Garcia, a Democratic member of the House Financial Services committee, said she remained opposed to the plan to create any form of composite currency, rather than relying purely on existing currencies.

She said: "Facebook and the Libra Association have issued a second white paper that retains a Libra coin backed by a basket of assets. As such, this does not address the concerns I raised when Mr Zuckerberg testified before the Financial Services Committee."

Some also have concerns that the association has not said how it will raise the money for the capital buffers it says will protect the currency in the event of a catastrophe.

How to Lead. Mark Bartlett, chief executive of Strix

Harnessing the power of teamwork to face a crisis

Strong local management helped the engineering boss remodel his Chinese plants to combat Covid-19, writes *Andy Bounds*

Mark Bartlett's philosophy: stick to what you are good at and make sure you have the best people
Chris Wormwell

Just weeks after the coronavirus shut down in China, the three factories owned by kettle controls maker Strix reopened at full capacity. The way the company managed to keep staff healthy and production going offers a lesson to those industries in Europe and the US struggling to manufacture goods through the pandemic.

Mark Bartlett, chief executive, credits the team on the ground in China for making this happen. He had to watch the situation unfold from the Isle of Man, the corporate headquarters of the business, which makes the thermostatic controls that switch off kettles when they boil.

The company is the global market leader in kettle controls with 54 per cent share by value.

The small island between Britain and Ireland has been Strix's home since its founding during the second world war. It still has a factory there making its most advanced and sensitive components and which is applying the lessons learnt in China.

Strix's main plant is in Guangzhou, far from Wuhan where the virus first surfaced. It was already shut for two weeks to observe the Chinese new year holiday when the authorities started restricting travel on January 24. Local managers interrupted their holidays to set up an emergency response group.

"They were amazing, particularly the local management," says Mr Bartlett, 55, an engineer by background who joined Strix in 2006. "They used their initiative."

The first step was to make the factory safe. Led by Frank Gao, chief operating officer, they ordered masks and made all staff wear one. They installed hand sanitisers throughout and put high quality disinfectant in all restrooms.

To go a step further, they erected a disinfection tent outside the factory entrance using one of Strix's own products — halopure. This laces water with bromide, which draws out viruses and bacteria and renders them inert. Workers were covered in a fine spray on the way in and out. "The authorities said that was going above and beyond but it gave extra reassurance," says Mr Bartlett.

Next, they had to get the 750 staff back to the factory while much of public transport was suspended. The solution? Company buses and private cars fetched workers from many miles away. After that, they were collected directly them from their homes each day and dropped off to eliminate the risk of workers catching the virus on a bus or train.

Managers also set up WeChat and other social media groups. Workers provided a health checklist before clocking on and many gave their consent to be tracked, so managers could see whether they could have exposed themselves to the virus. The company also reduced movement within the factory with each production area sectioned off to eliminate any potential cross contamination. Safety screens were also installed in the canteen to ensure there was no contact.

With daily temperature and health checks, anyone with symptoms was quarantined for 14 days on full pay.

The factory reopened on February 10, having been shut for just one extra week. Mr Bartlett says he relied on front line managers to make the decision. Mr Gao, a Chinese national with years of experience in multinationals, is also a black belt — in Six Sigma, the lean manufacturing process.

"I have complete trust in Frank. His team cleared things with him and he reported back to me. We have financial limits above which he needs head office approval but they were never breached," says Mr Bartlett.

He would not put a price on the measures but says it was insignificant for a company with £97m annual revenue.

Office workers throughout the group worked from home and the company has long used video conferencing such as Zoom as well as WhatsApp and WeChat groups to communicate. "Frank knows he can get hold of me day or night."

In the factory, no staff tested positive for the virus and production was back to normal levels within days. Only 4 per cent of workers were absent in March, which is normal following any Chinese new year period,

The Chinese plants supply big manufacturers of kettles and heating equipment, who are concentrated in southern China. Mr Bartlett says their customers were now also at full capacity. "China is back to normal." Its clients include Tefal, Siemens and Philips. Several factors helped. "There is a lot of discipline in China and they have experience of Sars and other pandemics. So they follow advice.

"The team was motivated and took this as a challenge and were positive throughout using their own initiative to come up with creative solutions."

Some of those have now been applied to the company's small factory at Ramsey on the Isle of Man now that Covid-19 has spread across the world.

Despite the difficulties thrown up by the crisis, Mr Bartlett say Strix's plans for the year remained on track.

But there is life beyond kettles — which account for almost 90 per cent of revenue — and the company has a long history of innovation. Eric Taylor, its founder, invented a heating device to keep flying suits warm at high altitude for Royal Air Force bomber crew. Owner Eddie Davies oversaw rapid growth in the 1980s and by 1988 the company was the world leader for the supply of kettle controls. In 1997 it was among the first western manufacturers to move production to China.

> **'The team was motivated and took this as a challenge and were positive throughout'**

Mr Davies sold the company to private equity group AAC in 2005 and Strix listed in 2017 with a valuation of £190m. It is now worth more than £300m despite a price fall in the recent market downturn.

Strix aims to launch 14 new products this year and invests about 5 per cent of revenue in research and development annually. It has developed its own range of water filters, Aqua Optima, and also makes a machine to heat baby formula with Tommee Tippee, the childcare products group.

"Our expertise is the management of steam and water," says Mr Bartlett. That means hot taps, coffee makers, sterilisers and filtered water dispensers.

That knowhow underlies Mr Bartlett's leadership philosophy: "Stick to what you are good at, your core competencies. Make sure you have the best people, and ours certainly are."

FT

Leadership
More interviews illuminating the personalities of high-profile leaders by focusing on the issues they faced
ft.com/howtolead

How the internet has survived the demand surge from hundreds of millions of people in lockdown

Richard Waters
Tech Teardown

> **When anyone tries to stream a song or check a website, the digital bits can usually be shipped from a nearby computer**

Home working should have overloaded the internet. Why didn't it?

The internet's surge protectors have survived a major convulsion. Hundreds of millions of people have found themselves working — and movie-watching, game-playing and video-calling — from home throughout the day. The result, according to Matthew Prince, head of internet infrastructure company Cloudflare, has been a spike in demand that would have brought any other public utility to its knees. His company's network has seen demand rise more than 50 per cent — the kind of spike that "would be a disaster" in a sewer system or electric grid, he said.

That online traffic has not ground to a halt under the weight of so much screen time owes much to a collection of specialist networks overlaid on top of the internet to help with the heavy lifting. Known as content delivery networks, they specialise in serving up movies, web pages or any other form of internet content in the most efficient way possible.

Key to the way they work is to store copies of the most popular online content on servers around the world, putting it closer to users. This technique, called caching, means that when anyone tries to stream a song or check a website, the digital bits can usually be shipped from a nearby computer, rather than from half a world away. That reduces the traffic travelling over the "core" network, easing pressure on the internet's trunk routes and reducing the lag before content is delivered — something known as latency.

"There's just no way the core could keep up with the kind of surge we've seen," said Tom Leighton, chief executive officer of Akamai, the largest of the CDNs. Akamai stores internet content on servers in 4,000 data centres in 1,000 cities around the world. Algorithms are used to optimise the way these storage systems work, constantly assessing what users are likely to want and making sure it is on a server near to them.

The massive traffic peaks seen during lockdown have forced the CDNs to get creative. The same content is cached on all servers in a network, meaning that when the load on any one part of the network is high, requests can be met from other locations. To meet requests for content at busy times, Cloudflare has been tapping servers on the other side of the world, where it may be the middle of the night. "During normal times, more than half of the equipment is sitting relatively idle because it's servicing a part of the world where people are asleep," said Mr Prince.

The trick, he said, is to balance the flow of digital bits coming from different locations to maintain a smooth experience for users. The network's first response to any request is to deliver content from a local server, for instance immediately streaming the first minute of a video. Once enough of the video has been delivered to the viewer's device to build up a buffer, the need for immediacy declines and the network can switch to drawing the rest from a server much further away.

While the content delivery networks have been able to adjust to the current crisis, they haven't been impervious. The mass downloading of entire video games is one activity that has threatened to overload them. Akamai, which handles game downloads for Microsoft and Sony, said that a typical game put as much strain on its network as transmitting 30,000 web pages. In late March, faced with the risk that other types of traffic would slow down as a result, it was forced to delay game downloads at times of peak demand, pushing them back to quieter periods.

Content delivery networks have also become the first line of defence against distributed denial of service attacks — a cyber attack that involves deluging a website with so many requests that genuine users can't get access to it.

To cope, the networks incorporate servers known as "scrubbers", which are designed to soak up the surge in fake requests while providing enough capacity to respond to genuine users. These servers have come in handy at a time when so many people are working remotely, said Mr Prince: they can handle the jump in the number of requests coming from different locations — a pattern that in normal times would be like a malicious attack.

Contracts & Tenders

Legal Notices

IN THE HIGH COURT OF JUSTICE CR-2019-006972
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
COMPANIES COURT (ChD)

IN THE MATTER OF
DAS LEGAL EXPENSES INSURANCE COMPANY LIMITED
- and -
IN THE MATTER OF
ARAG ALLGEMEINE VERSICHERUNGS-AG
- and -
IN THE MATTER OF
PART VII OF THE FINANCIAL SERVICES
AND MARKETS ACT 2000
NOTICE

Notice is hereby given that on 7 April 2020 an Application was made under section 107 of the Financial Services and Markets Act 2000 (the **Act**) in the High Court of Justice, Business and Property Courts of England and Wales, Companies Court (ChD) in London by DAS Legal Expenses Insurance Company Limited (the **Transferor**) and ARAG Allgemeine Versicherungs-AG (the **Transferee**), for an order:

(1) under section 111 of the Act sanctioning a scheme (the **Scheme**) providing for the transfer to the Transferee of all of the legal expenses insurance business written by the Transferor through its branch in the Republic of Ireland (other than business in Northern Ireland); and

(2) making ancillary provisions in connection with the Scheme pursuant to sections 112 and 112A of the Act.

A copy of the report on the terms of the Scheme prepared in accordance with section 109 of the Act by an Independent Expert (the **Scheme Report**), a statement setting out the terms of the Scheme and a summary of the Scheme Report, and the Scheme document may be obtained free of charge by contacting the Transferor and the Transferee using the telephone numbers or addresses set out below. These documents and other related documents, including sample copies of the communications to policyholders, are also available at www.das.co.uk/arag-transfer and www.arag.ie/DASIrelandSale. These websites will be updated for any key changes to the proposed transfer.

Any questions or concerns relating to the proposed Scheme should be referred to the parties by email to customerrelations@das.co.uk or DASIrelandSale@arag.ie, by telephone at +44(0)117 934 2000 (UK) or +353(0)1 8818080 (Ireland) (available between 9am to 5pm Monday to Friday (excluding public holidays)), or in writing at DAS Legal Expenses Insurance Company Limited, DAS House, Quay Side, Temple Back, Bristol BS1 6NH, United Kingdom or ARAG Legal Protection, Europa House, Harcourt Centre, Harcourt Street, Dublin D02 WR20, Ireland.

If you have a policy with the Transferor and/or the Transferee please quote your policy number in any correspondence. This can be found on your policy documentation or related correspondence.

The Application is due to be heard at the **High Court of Justice of England and Wales, 7 Rolls Building, Fetter Lane, London, EC4A 1NL, United Kingdom** on 28 July 2020. Any person who thinks that he or she would be adversely affected by the carrying out of the Scheme, or objects to the Scheme, may attend the hearing and express their views, either in person or by representative. In light of current government guidelines regarding Covid-19, please note that it is possible that the hearing may take place remotely via Skype or another teleconferencing service. It is requested that anyone intending to attend the hearing (whether in person or via their representative) informs the Transferor and the Transferee in writing (using the contact details set out above) as soon as possible and preferably before 21 July 2020 to set out the nature of their objection. This will enable the Transferor and the Transferee to provide notification of any changes to the hearing (including any details necessary to attend the hearing if it is to be held remotely) and, where possible, to address any concerns raised in advance of the hearing.

Any person who objects to, or considers they may be adversely affected by, the Scheme but does not intend to attend the hearing may make representations about the Scheme by giving written notice of such representations to the Transferor and the Transferee at the address provided above or by calling one of the dedicated telephone numbers provided above, in each case as soon as possible and preferably before 21 July 2020. All representations will be provided to the High Court at the hearing.

The Transferor and the Transferee will inform the UK's Financial Conduct Authority and Prudential Regulation Authority of any objections raised in advance of the hearing, regardless of whether the person making the objection intends to attend the hearing.

20 April 2020

Norton Rose Fulbright LLP,
3 More London Riverside, London, SE1 2AQ, United Kingdom
Solicitors acting for the Transferor.
Ref: MJFF/1001039393

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

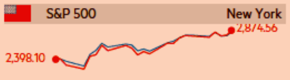
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
2.68%	1.38%	2.99%	2.82%	2.52%	3.15%	1.56%	2.58%	0.369%	0.402%	-0.037%	-0.115%	-6.69%	0.63%

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

AMERICAS

Mar 18 - - Index All World

S&P 500 New York



Day ↗2.68% Month ↗13.66% Year ↘-0.89%

Nasdaq Composite New York

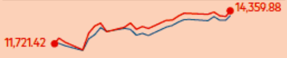
Day ↗1.38% Month ↗17.93% Year ↗8.18%

Dow Jones Industrial New York

Day ↗2.99% Month ↗14.15% Year ↘-8.34%

Mar 18 - Apr 17 Index All World

S&P/TSX COMP Toronto



Day ↗3.31% Month ↗13.20% Year ↘-13.20%

IPC Mexico City

Day ↗2.91% Month ↘-5.75% Year ↘-23.68%

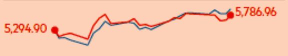
Bovespa São Paulo

Day ↗1.51% Month ↗5.86% Year ↘-15.32%

EUROPE

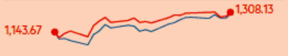
Mar 18 - Apr 17 Index All World

FTSE 100 London



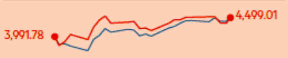
Day ↗2.82% Month ↗8.86% Year ↘-22.85%

FTSE Eurofirst 300 Europe



Day ↗2.52% Month ↗14.05% Year ↘-14.78%

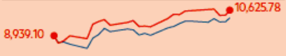
CAC 40 Paris



Day ↗3.42% Month ↗12.71% Year ↘-19.13%

Mar 18 - Apr 17 Index All World

Xetra Dax Frankfurt



Day ↗3.15% Month ↗18.87% Year ↘-12.57%

Ibex 35 Madrid

Day NaN% Month NaN% Year NaN%

FTSE MIB Milan

Day ↗1.71% Month ↗11.00% Year ↘-22.73%

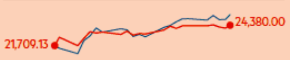
ASIA

Mar 18 - Apr 17 Index All World

Nikkei 225 Tokyo

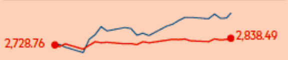
Day ↗3.15% Month ↗17.03% Year ↘-10.46%

Hang Seng Hong Kong



Day ↗1.56% Month ↗5.67% Year ↘-19.11%

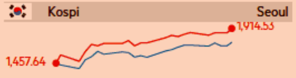
Shanghai Composite Shanghai



Day ↗0.66% Month ↗1.77% Year ↘-12.76%

Mar 18 - Apr 17 Index All World

Kospi Seoul



Day ↗3.09% Month ↗11.64% Year ↘-14.86%

FTSE Straits Times Singapore

Day ↗0.09% Month ↗4.79% Year ↘-21.51%

BSE Sensex Mumbai

Day ↗3.22% Month ↗0.63% Year ↘-19.57%

Country	Index	Latest	Previous
Argentina	Merval	29883.27	30077.72
Australia	All Ordinaries	5544.70	5467.60
	S&P/ASX 200	5487.50	5416.30
	S&P/ASX 200 Res	3918.90	3879.50
Austria	ATX	2070.07	2006.75
Belgium	BEL 20	3015.41	2925.16
	BEL Mid	7348.91	7192.40
Brazil	IBovespa	78990.29	77811.85
Canada	S&P/TSX 60	871.85	842.76
	S&P/TSX Comp	14359.88	13899.32
	S&P/TSX Div Met & Min	324.39	332.61
Chile	S&P/CLX IGPA Gen	19155.96	19594.81
China	FTSE A200	10127.50	10019.57
	FTSE B35	9000.71	8988.96
	Shanghai A	2974.91	2955.43
	Shanghai B	214.66	214.19
	Shanghai Comp	2838.49	2819.94
	Shenzhen A	1831.47	1825.31
	Shenzhen B	833.88	832.24
Colombia	COLCAP	1202.54	1204.01
Croatia	CROBEX	2013.05	2011.29
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	851.36	844.46
Denmark	OMXC Copenahgen 20	1144.82	1120.88
Egypt	EGX 30	10154.64	10342.13
Estonia	OMX Tallinn	1121.23	1104.70
Finland	OMX Helsinki General	8086.61	7888.48
France	CAC 40	4499.01	4350.16
	SBF 120	3538.15	3417.56
Germany	M-DAX	22356.36	21792.67
	TecDAX	2871.08	2816.65
	XETRA Dax	10625.78	10301.54
Greece	Athens Gen	606.75	607.57
	FTSE/ASE 20	1459.82	1472.14
Hong Kong	Hang Seng	24380.00	24006.45
	HS China Enterprise	9815.20	9672.60
	HSCC Red Chip	3763.13	3698.56
Hungary	Bux	33173.40	32217.99
India	BSE Sensex	31588.72	30602.61
	Nifty 500	7614.40	7412.30
Indonesia	Jakarta Comp	4634.82	4480.61
Ireland	ISEQ Overall	5277.52	5082.98
Israel	Tel Aviv 125	1299.99	1320.74
Italy	FTSE Italia All-Share	18677.04	18368.73
	FTSE Italia Mid Cap	30622.15	30012.60
	FTSE MIB	17055.47	16768.14
Japan	2nd Section	5583.88	5532.86
	Nikkei 225	19897.26	19290.20
	S&P Topix 150	1203.03	1181.39
	Topix	1442.54	1422.24
Jordan	Amman SE	1668.18	1675.47
Kenya	NSE 20	1968.78	1984.40
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	993.07	994.94
Lithuania	OMX Vilnius	677.79	668.60
Luxembourg	LuxX	936.20	911.78
Malaysia	FTSE Bursa KLCI	1407.34	1386.53
Mexico	IPC	34743.10	33759.75
Morocco	MASI	9147.85	9196.10
Netherlands	AEX	505.82	496.08
	AEX All Share	714.46	701.98
New Zealand	NZX 50	10778.72	10473.19
Nigeria	SE All Share	22554.84	22539.94
Norway	Oslo All Share	815.92	793.56
Pakistan	KSE 100	32831.83	31329.46
Philippines	Manila Comp	5789.97	5525.60
Poland	Wig	45353.23	44645.12
Portugal	PSI 20	4172.21	4106.80
	PSI General	2884.99	2846.27
Romania	BET Index	7935.06	7964.04
Russia	Micex Index	2534.97	2515.05
	RTX	1078.69	1066.91
Saudi-Arabia	TADAWUL All Share Index	6631.69	6813.67
Singapore	FTSE Straits Times	2614.60	2612.25
Slovakia	SAX	327.37	326.95
Slovenia	SBI TOP	873.85	-
South Africa	FTSE/JSE All Share	49134.65	48245.11
	FTSE/JSE Res 20	42670.66	41352.08
	FTSE/JSE Top 40	45044.37	44180.00
South Korea	Kospi	1914.53	1857.07
	Kospi 200	255.02	247.10
Spain	IBEX 35	6875.80	6763.40
Sri Lanka	CSE All Share	4571.63	4874.73
Sweden	OMX Stockholm 30	1534.55	1483.79
	OMX Stockholm AS	582.15	563.59
Switzerland	SMI Index	9612.83	9439.91
Taiwan	Weighted Pr	10597.04	10375.48
Thailand	Bangkok SET	1239.24	1200.15
Turkey	BIST 100	116840.94	116315.98
UAE	Abu Dhabi General Index	3969.51	4127.44
UK	FT 30	2183.10	2107.40
	FTSE 100	5786.96	5628.43
	FTSE 4Good UK	5335.17	5185.61
	FTSE All Share	3190.20	3102.13
	FTSE techMARK 100	4935.58	4730.81
USA	DJ Composite	7896.55	7659.70
	DJ Industrial	24242.49	23537.68
	DJ Transport	8233.81	7981.93
	DJ Utilities	823.98	797.54
	Nasdaq 100	8832.41	8757.83
	Nasdaq Cmp	8650.14	8532.36
	NYSE Comp	11208.29	10818.03
	S&P 500	2874.56	2799.55
	Wilshire 5000	28760.23	27984.95
Venezuela	IBC	241894.17	248509.91
Vietnam	VNI	789.60	780.70
Cross-Border	DJ Global Titans ($)	339.42	332.71
	Euro Stoxx 50 (Eur)	2888.30	2812.35
	Euronext 100 ID	883.28	857.70
	FTSE 4Good Global ($)	7170.01	7024.63
	FTSE All World ($)	316.54	308.59
	FTSE E300	1308.13	1275.93
	FTSE Eurotop 100	2536.68	2477.16
	FTSE Global 100 ($)	1862.15	1825.14
	FTSE Gold Min ($)	2130.51	2098.87
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	1940.06	1930.57
	FTSE World ($)	563.16	548.39
	FTSEurofirst 100 (Eur)	3398.16	3313.06
	FTSEurofirst 80 (Eur)	3934.36	3834.22
	MSCI ACWI Fr ($)	468.06	467.40
	MSCI All World ($)	1964.33	1960.20
	MSCI Europe (Eur)	1319.95	1313.41
	MSCI Pacific ($)	2316.35	2346.80
	S&P Euro (Eur)	1312.92	1278.93
	S&P Europe 350 (Eur)	1341.05	1306.91
	S&P Global 1200 ($)	2245.78	2186.41
	Stoxx 50 (Eur)	2826.09	2763.66

(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	186.5	2375.00	-33.19
Apple	151.1	282.80	-3.89
Microsoft	93.3	178.60	1.56
Boeing	80.0	154.00	19.76
Gilead Sciences	78.6	83.99	7.45
Netflix	52.8	422.96	-16.21
Advanced Micro Devices	43.2	56.60	-0.35
Nvidia	39.1	292.32	-2.38
Facebook	37.0	179.24	2.99
Alphabet	31.9	1279.00	21.57

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Hollyfrontier	27.02	3.95	17.12
Marathon Petroleum	25.45	3.50	15.95
Citizens Fin	19.87	2.68	15.59
Comerica	30.00	3.95	15.16
Valero Energy	51.76	6.76	15.02
Downs			
Netflix	422.96	-16.21	-3.69
Unitedhealth	290.56	-7.87	-2.64
Electronic Arts	115.15	-2.95	-2.50
Centene	71.29	-1.56	-2.14
Take-two Interactive Software	124.44	-2.38	-1.88

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Rio Tinto	327.8	3816.50	122.50
Crh	273.8	2220.00	70.00
Hsbc Holdings	268.8	414.35	8.75
Astrazeneca	233.3	7970.00	152.00
Glaxosmithkline	227.0	1660.60	6.80
Bp	181.8	303.55	11.60
British American Tobacco	173.4	2943.50	-14.50
Vodafone	160.8	108.88	1.72
Diageo	153.4	2711.00	69.00
Royal Dutch Shell	142.8	1370.20	72.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Cineworld	62.62	11.04	21.40
Brewin Dolphin Holdings	251.00	38.50	18.12
Flutter Entertainment	9018.00	1222.00	15.67
Aston Martin Lagonda Global Holdings	58.10	7.60	15.05
Mitchells & Butlers	187.40	23.20	14.13
Downs			
Nmc Health	0.10	-938.30	-99.99
Ti Fluid Systems	146.20	-10.20	-6.52
Hochschild Mining	121.30	-7.80	-6.04
Mediclinic Int	253.20	-14.00	-5.24
Hyve	23.75	-1.25	-5.00

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Sap Se O.n.	513.7	113.06	2.96
Asml Holding	476.2	271.55	4.00
Lvmh	440.6	358.00	15.20
Allianz Se Na O.n.	431.8	163.90	5.10
Sanofi	381.8	86.57	1.74
Linde Eo 0,001	369.6	172.95	7.60
Siemens Ag Na O.n.	366.5	80.51	2.72
Total	344.8	31.02	1.00
Royal Dutch Shella	338.9	15.93	0.82
Unilever	316.5	45.68	-0.12

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Randstad Nv	34.79	3.32	10.55
Accor	26.84	2.27	9.24
Thyssenkrupp Ag O.n.	5.89	0.50	9.24
Ses	6.53	0.55	9.20
Atlantia	12.72	0.92	7.80
Downs			
Getinge Ab Ser. B	16.67	-0.41	-2.43
Red Ele.	15.23	-0.38	-2.40
B. Sabadell	0.39	-0.01	-2.08
Coloplast B A/s	141.43	-1.94	-1.36
Telecom Italia	0.34	0.00	-1.15

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	3138.8	4735.00	305.00
Fast Retailing Co.,	837.4	50880.00	3000.00
Sony	646.1	6969.00	269.00
Toyota Motor	454.8	6756.00	154.00
Tokyo Electron	435.4	23440.00	870.00
Recruit Hldgs Co Ltd	339.8	2918.50	154.50
Mitsubishi Ufj Fin,.	294.9	412.90	4.60
Fujifilm Holdings	275.0	5336.00	-109.00
Advantest	209.9	5000.00	305.00
Takeda Pharmaceutical	209.0	3592.00	16.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Casio Computer Co.,	1751.00	137.00	8.49
Olympus	1744.00	135.00	8.39
Dentsu .	2072.00	160.00	8.37
Honda Motor Co.,	2469.50	189.50	8.31
Suzuki Motor	3160.00	228.50	7.79
Downs			
East Japan Railway	8156.00	-184.00	-2.21
Nippon Telegraph And Telephone	2568.00	-55.00	-2.10
Fujifilm Holdings	5336.00	-109.00	-2.00
Yamato Holdings Co.,	1902.00	-30.00	-1.55
Nichirei	2797.00	-41.00	-1.44

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Flutter Entertainment	9018.00	15.1	-4.6
Ocado	1569.00	14.7	24.6
Astrazeneca	7970.00	11.9	4.0
Rentokil Initial	435.40	11.0	-4.4
Halma	2119.00	7.6	-1.6
Glaxosmithkline	1660.60	7.5	-6.6
Auto Trader	438.70	6.0	-26.1
Experian	2378.00	5.6	-6.7
Spirax-sarco Eng	8822.00	5.0	-2.4
Croda Int	4620.00	4.7	-9.4
Bae Systems	558.40	3.7	-2.7
London Stock Exchange	7482.00	3.5	-2.8
Losers			
Royal Bank Of Scotland	106.20	-13.3	-56.5
Intermediate Capital	962.00	-12.2	-41.3
Jd Sports Fashion	504.20	-10.7	-39.4
Centrica	31.81	-10.6	-64.7
Standard Chartered	406.50	-9.8	-43.5
Melrose Industries	91.12	-9.7	-62.4
Ashtead	1767.00	-9.7	-26.4
Bp	303.55	-9.6	-36.9
Royal Dutch Shell	1370.20	-9.2	-39.3
Whitbread	2700.00	-8.9	-44.9
Lloyds Banking	30.45	-8.8	-52.2
Royal Dutch Shell	1343.20	-8.7	-40.5

FTSE 250	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Avast	434.20	11.5	-8.5
Biffa	207.00	8.2	-23.2
B&m Eur Value Retail S.a.	323.10	7.7	-20.3
Genus	3600.00	7.7	11.7
Renishaw	3266.00	7.0	-16.5
Domino's Pizza	318.40	6.5	-2.1
Spectris	2570.00	5.9	-13.2
Trainline	356.00	5.6	-29.4
Dunelm	884.50	5.1	-23.7
Ascential	220.80	4.8	-43.1
Softcat	1111.00	4.1	-7.3
Brewin Dolphin Holdings	251.00	3.7	-33.1
Losers			
Petrofac	167.75	-21.4	-56.2
Micro Focus Int	367.80	-20.7	-66.9
Hyve	23.75	-19.1	-76.2
Cineworld	62.62	-18.9	-71.5
4imprint	1838.00	-18.3	-46.3
Watches Of Switzerland	211.00	-18.1	-45.9
Hiscox Ltd	843.00	-18.0	-41.1
Aston Martin Lagonda Global Holdings	58.10	-17.1	-67.0
Tui Ag	331.20	-17.0	-66.6
Wetherspoon (J.d.)	852.00	-16.5	-49.2
Apax Global Alpha	117.00	-16.4	-34.5
Mitchells & Butlers	187.40	-15.8	-58.9

FTSE SmallCap	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Costain	90.90	118.8	-44.9
Funding Circle Holdings	115.00	109.1	19.0
Intu Properties	6.88	27.3	-79.0
Studio Retail	187.00	26.8	-21.1
Premier Foods	32.70	26.3	-14.1
Aa	23.15	21.3	-60.1
Carr's	125.75	20.6	-18.9
Medica	125.00	19.6	-18.8
Stobart Ld	72.00	18.2	-35.6
Sportech	18.75	15.4	-42.3
Sdl	483.00	14.2	-15.9
Schroder Real Estate Investment Trust	39.55	13.5	-29.9
Losers			
Purecircle	78.00	-40.5	-
Tullow Oil	18.40	-30.1	-69.2
Premier Oil	24.61	-21.9	-75.3
Robert Walters	361.00	-21.4	-35.1
Enquest	10.52	-20.5	-52.3
Superdry	135.40	-20.4	-73.3
Pharos Energy	14.96	-19.1	-72.1
Hyve	23.75	-19.1	-76.2
4imprint	1838.00	-18.3	-46.3
Connect	17.20	-17.9	-51.6
De La Rue	55.70	-16.2	-59.7
Sig	17.88	-14.5	-85.7

Industry Sectors	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Pharmaceuticals & Biotech.	17772.09	9.1	-0.8
Electronic & Electrical Equip.	8050.65	5.4	-7.1
Food & Drug Retailers	4025.55	3.6	-4.6
Beverages	21219.83	2.4	-
Index - Technology Hardware & Equipment	1818.00	2.4	-8.2
Chemicals	10140.92	1.1	-
Food Producers	6685.30	0.4	-
Aerospace & Defense	3679.70	0.1	-
Support Services	7270.59	-0.2	-23.6
Media	6856.13	-0.5	-
Gas Water & Multiutilities	4872.09	-0.6	-9.8
Personal Goods	34264.42	-0.6	-
Losers			
Oil Equipment & Services	3932.55	-17.7	-53.8
Automobiles & Parts	2615.10	-16.2	-
Oil & Gas Producers	4975.65	-9.5	-
Industrial Transportation	1515.63	-7.1	-
Construction & Materials	5159.01	-6.6	-
Nonlife Insurance	2467.23	-6.4	-
Banks	2295.45	-6.0	-
General Industrials	4496.94	-5.8	-
Real Estate Investment Trusts	2503.52	-5.4	-
Fixed Line Telecommunication	1461.44	-4.5	-
Mobile Telecommunications	2467.96	-4.3	-
Real Estate & Investment Servic	2315.67	-3.8	-

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

CURRENCIES

Apr 17	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	65.8491	0.1174	71.7029	0.3872	82.3381	0.5283
Australia	Australian Dollar	1.5720	-0.0127	1.7117	-0.0076	1.9656	-0.0067
Bahrain	Bahrainin Dinar	0.3771	-	0.4106	0.0015	0.4715	0.0022
Bolivia	Bolivian Boliviano	6.9100	-	7.5243	0.0273	8.6403	0.0401
Brazil	Brazilian Real	5.2720	0.0295	5.7407	0.0528	6.5921	0.0673
Canada	Canadian Dollar	1.4036	-0.0089	1.5284	-0.0041	1.7551	-0.0029
Chile	Chilean Peso	849.9150	-3.4650	925.4705	-0.4056	1062.7392	0.6212
China	Chinese Yuan	7.0764	0.0028	7.7055	0.0310	8.8484	0.0446
Colombia	Colombian Peso	3999.9400	62.7500	4355.5259	83.8636	5001.5530	101.3193
Costa Rica	Costa Rican Colon	562.5950	-1.8050	612.6083	0.2616	703.4724	1.0192
Czech Republic	Czech Koruna	25.0574	0.0153	27.2849	0.1154	31.3319	0.1644
Denmark	Danish Krone	6.8505	-0.0263	7.4595	-0.0016	8.5659	0.0070
Egypt	Egyptian Pound	15.7498	0.0229	17.1499	0.0870	19.6937	0.1199
Hong Kong	Hong Kong Dollar	7.7504	-0.0006	8.4394	0.0300	9.6911	0.0443
Hungary	Hungarian Forint	323.5375	0.2507	352.2992	1.5486	404.5534	2.1900
India	Indian Rupee	76.3713	-0.4887	83.1605	-0.2289	95.4951	-0.1650
Indonesia	Indonesian Rupiah	15430.0000	-220.0000	16801.6963	-177.8179	19293.7708	-184.2570
Israel	Israeli Shekel	3.5883	-0.0009	3.9073	0.0131	4.4868	0.0196
Japan	Japanese Yen	107.5250	-0.0400	117.0837	0.3809	134.4499	0.5744
..One Month		107.5249	-0.0401	117.0837	0.3809	134.4499	0.5743
..Three Month		107.5248	-0.0405	117.0837	0.3809	134.4498	0.5740
..One Year		107.5240	-0.0421	117.0837	0.3809	134.4499	0.5732
Kenya	Kenyan Shilling	106.7500	0.2000	116.2398	0.6382	133.4809	0.8686
Kuwait	Kuwaiti Dinar	0.3115	0.0001	0.3392	0.0013	0.3895	0.0019
Malaysia	Malaysian Ringgit	4.3700	-0.0040	4.7585	0.0129	5.4643	0.0204
Mexico	Mexican Peso	23.9628	-0.2118	26.0930	-0.1352	29.9632	-0.1244
New Zealand	New Zealand Dollar	1.6576	-0.0204	1.8049	-0.0156	2.0726	-0.0158
Nigeria	Nigerian Naira	386.5000	0.5000	420.8589	2.0676	483.2821	2.8659
Norway	Norwegian Krone	10.3552	-0.1247	11.2758	-0.0944	12.9482	-0.0951
Pakistan	Pakistani Rupee	163.3500	-3.6500	177.8714	-3.3155	204.2539	-3.5946
Peru	Peruvian Nuevo Sol	3.4078	-0.0006	3.7107	0.0128	4.2611	0.0190
Philippines	Philippine Peso	50.9050	0.1150	55.4303	0.3256	63.6519	0.4386
Poland	Polish Zloty	4.1528	-0.0393	4.5220	-0.0263	5.1928	-0.0248
Romania	Romanian Leu	4.4408	-0.0189	4.8355	-0.0030	5.5527	0.0022
Russia	Russian Ruble	74.1150	-0.1725	80.7036	0.1053	92.6739	0.2155
Saudi Arabia	Saudi Riyal	3.7570	-0.0010	4.0910	0.0137	4.6978	0.0206
Singapore	Singapore Dollar	1.4218	-0.0053	1.5481	-0.0001	1.7778	0.0017
South Africa	South African Rand	18.8735	0.2315	20.5513	0.3256	23.5995	0.3977
South Korea	South Korean Won	1218.0000	-10.7000	1326.2774	-6.8029	1522.9952	-6.2469
Sweden	Swedish Krona	9.9766	-0.0635	10.8635	-0.0295	12.4748	-0.0211
Switzerland	Swiss Franc	0.9659	-0.0030	1.0518	0.0006	1.2078	0.0019
Taiwan	New Taiwan Dollar	30.0535	-0.0320	32.7252	0.0839	37.5791	0.1346
Thailand	Thai Baht	32.5750	-0.0950	35.4708	0.0255	40.7320	0.0709
Tunisia	Tunisian Dinar	2.8994	-0.0042	3.1571	0.0069	3.6254	0.0116
Turkey	Turkish Lira	6.9288	-0.0045	7.5447	0.0225	8.6638	0.0346
United Arab Emirates	UAE Dirham	3.6732	-	3.9997	0.0145	4.5929	0.0213
United Kingdom	Pound Sterling	0.7997	-0.0037	0.8708	-0.0009	-	-
..One Month		0.7998	-0.0037	0.8708	-0.0009	-	-
..Three Month		0.7998	-0.0037	0.8707	-0.0009	-	-
..One Year		0.7999	-0.0037	0.8701	-0.0009	-	-
United States	United States Dollar	-	-	1.0889	0.0039	1.2504	0.0058
..One Month		-	-	1.0888	-0.1557	1.2504	0.0058
..Three Month		-	-	1.0887	-0.1557	1.2505	0.0058
..One Year		-	-	1.0878	-0.1557	1.2506	0.0058
Venezuela	Venezuelan Bolivar Fuerte	-	-	-	-	-	-
Vietnam	Vietnamese Dong	23425.0000	-27.5000	25507.4711	62.6317	29290.8109	101.7416
European Union	Euro	0.9184	-0.0033	-	-	1.1483	0.0012
..One Month		0.9183	-0.0033	-	-	1.1483	0.0012
..Three Month		0.9181	-0.0033	-	-	1.1482	0.0012
..One Year		0.9173	-0.0033	-	-	1.1476	0.0012

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

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	£ Strlg Apr 17	Day's chge%	Euro Index	£ Strlg Apr 16	£ Strlg Apr 15	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (101)	5786.96	2.82	5182.22	5628.43	5597.65	7459.88	5.32	1.48	12.67	74.02	5411.01
FTSE 250 (250)	15859.29	3.13	14201.96	15378.57	15347.56	19835.93	4.04	2.01	12.33	91.24	12408.89
FTSE 250 ex Inv Co (187)	16102.37	3.53	14419.64	15553.36	15537.09	20971.85	4.41	1.48	15.33	79.76	12871.81
FTSE 350 (351)	3229.21	2.87	2891.75	3139.19	3123.81	4141.48	5.11	1.55	12.61	37.55	6025.08
FTSE 350 ex Investment Trusts (287)	3168.00	2.92	2836.94	3078.10	3063.31	4095.98	5.23	1.48	12.89	37.49	3049.72
FTSE 350 Higher Yield (107)	2624.04	2.77	2349.83	2553.32	2553.14	3703.77	7.84	1.32	9.63	40.52	5331.78
FTSE 350 Lower Yield (244)	3618.20	2.96	3240.09	3514.32	3481.82	4217.35	2.65	2.16	17.47	29.58	4233.22
FTSE SmallCap (265)	4579.96	2.00	4101.34	4490.14	4490.70	5596.99	4.90	1.32	15.42	38.01	7149.37
FTSE SmallCap ex Inv Co (146)	3520.01	2.40	3152.16	3437.48	3441.85	4592.89	6.27	0.64	24.79	20.66	5769.03
FTSE All-Share (616)	3190.20	2.84	2856.82	3102.13	3087.44	4084.74	5.10	1.54	12.69	36.72	6013.32
FTSE All-Share ex Inv Co (433)	3103.32	2.91	2779.01	3015.52	3001.33	4012.83	5.25	1.47	12.99	36.38	3034.54
FTSE All-Share ex Multinationals (542)	933.54	2.75	692.87	908.54	905.29	1195.23	4.55	1.55	14.19	4.82	1834.63
FTSE Fledgling (96)	7152.15	0.78	6404.73	7096.62	7076.28	9344.51	5.15	0.49	39.99	63.85	14452.75
FTSE Fledgling ex Inv Co (42)	7821.43	0.18	7004.08	7807.61	7769.52	11025.39	9.40	-0.55	-19.31	56.28	15523.68
FTSE All-Small (361)	3163.12	1.93	2832.57	3103.20	3103.06	3880.27	4.91	1.27	15.97	26.37	6334.68
FTSE All-Small ex Inv Co (188)	2617.47	2.33	2343.94	2557.99	2560.71	3423.32	6.38	0.58	26.82	15.47	5434.28
FTSE AIM All-Share (735)	759.27	2.14	679.93	743.35	733.94	955.15	1.85	1.40	38.49	1.85	866.61
FTSE Sector Indices											
Oil & Gas (12)	**5131.82**	**5.05**	**4595.54**	**4885.09**	**5042.71**	**9589.00**	**10.29**	**1.33**	**7.31**	**127.10**	**5550.01**
Oil & Gas Producers (8)	4993.04	5.00	4471.26	4755.22	4906.75	9274.15	10.25	1.34	7.28	125.00	5596.38
Oil Equipment Services & Distribution (4)	3984.44	9.47	3568.06	3639.71	3886.63	11280.43	13.59	0.60	12.26	6.80	3430.91
Basic Materials (23)	**4826.92**	**3.86**	**4322.50**	**4647.43**	**4619.02**	**6921.16**	**7.19**	**2.15**	**6.47**	**132.55**	**5687.42**
Chemicals (7)	11015.72	3.18	9864.56	10676.45	10527.53	15656.27	3.17	1.99	15.84	87.38	10479.85
Forestry & Paper (1)	16478.98	4.85	14756.90	15717.38	15674.38	21214.47	1.88	5.96	8.94	0.00	19498.23
Industrial Metals & Mining (2)	2794.74	4.26	2502.69	2680.55	2526.62	6803.63	19.74	1.06	4.80	261.34	3568.13
Mining (13)	13814.83	3.88	12371.15	13299.18	13237.85	19712.45	7.74	2.15	6.01	417.70	8596.32
Industrials (99)	**4517.27**	**4.75**	**4045.20**	**4312.49**	**4293.10**	**5443.72**	**3.03**	**1.46**	**22.62**	**13.36**	**4961.16**
Construction & Materials (14)	5396.95	2.92	4832.96	5243.85	5148.48	6398.28	3.59	0.56	49.77	95.82	6200.25
Aerospace & Defense (9)	3883.72	6.12	3477.86	3659.80	3620.76	4935.42	3.19	1.16	26.94	2.61	4406.20
General Industrials (7)	3623.97	4.79	3245.26	3458.44	3478.42	4714.79	4.50	0.93	23.79	0.00	4463.51
Electronic & Electrical Equipment (10)	9438.45	6.26	8452.12	8882.65	8836.80	9085.40	1.46	2.15	31.89	0.00	8985.07
Industrial Engineering (12)	11114.18	5.11	9952.73	10574.04	10556.41	14382.09	3.08	1.65	19.69	0.97	14336.49
Industrial Transportation (6)	2476.50	3.60	2217.70	2390.51	2387.98	3738.72	9.76	0.81	12.66	0.00	2505.31
Support Services (41)	6924.75	4.51	6201.10	6625.84	6616.61	8168.31	2.42	2.18	18.93	10.09	7615.34
Consumer Goods (42)	**17379.71**	**1.12**	**15563.50**	**17187.78**	**17064.22**	**19625.27**	**4.77**	**1.69**	**12.40**	**223.89**	**14389.32**
Automobiles & Parts (2)	2628.50	-0.19	2353.82	2633.44	2933.55	6444.26	3.59	2.34	11.92	0.00	2687.22
Beverages (6)	21235.17	2.68	19016.05	20680.94	20510.69	24923.13	2.67	2.12	17.68	195.72	16047.70
Food Producers (10)	6553.64	1.79	5868.77	6438.33	6307.19	7704.44	2.82	2.08	17.04	12.57	6014.29
Household Goods & Home Construction (14)	12776.53	2.01	11441.36	12525.31	12396.25	13479.60	4.35	2.03	11.31	141.01	10168.09
Leisure Goods (2)	12836.89	4.98	11495.41	12227.37	12521.90	11119.26	3.96	1.48	17.11	109.33	13310.08
Personal Goods (6)	29621.68	0.27	26526.16	29542.32	29602.99	33742.98	3.42	2.72	10.74	220.67	21703.04
Tobacco (2)	30917.08	-0.55	27686.19	31086.57	30816.56	35212.91	8.09	1.12	11.00	710.53	23988.74
Health Care (17)	**12490.55**	**1.29**	**11185.26**	**12331.51**	**11928.22**	**10451.11**	**3.42**	**0.99**	**29.56**	**193.60**	**10684.48**
Health Care Equipment & Services (8)	6437.08	1.41	5764.40	6347.56	6295.79	6939.33	2.13	1.99	23.61	77.97	5892.90
Pharmaceuticals & Biotechnology (9)	17643.35	1.28	15799.59	17420.73	16809.33	14345.82	3.55	0.93	30.30	279.28	13546.00
Consumer Services (86)	**4073.18**	**3.42**	**3647.53**	**3938.42**	**3890.22**	**5236.85**	**3.75**	**1.59**	**16.82**	**21.58**	**4120.83**
Food & Drug Retailers (5)	4181.76	0.64	3744.76	4155.07	4104.10	4345.83	2.60	0.99	38.88	0.00	5160.10
General Retailers (27)	1682.27	2.31	1506.47	1644.25	1655.16	2257.71	3.46	1.79	16.13	2.90	2096.48
Media (18)	6983.85	3.00	6254.03	6780.58	6629.82	8488.25	3.82	1.59	16.44	18.76	4634.20
Travel & Leisure (36)	6114.06	6.29	5475.13	5752.27	5677.27	9064.26	4.53	1.69	13.05	78.84	6270.81
Telecommunications (6)	**1610.08**	**0.97**	**1441.82**	**1594.64**	**1593.00**	**2324.93**	**8.23**	**0.02**	**532.98**	**0.00**	**2127.60**
Fixed Line Telecommunications (3)	1515.06	-0.77	1356.73	1526.75	1493.06	2735.17	11.78	1.45	5.84	0.00	1655.95
Mobile Telecommunications (3)	2464.23	1.67	2206.71	2423.73	2441.91	3220.38	6.82	-0.95	-15.36	0.00	2916.41
Utilities (8)	**6835.00**	**0.19**	**6120.73**	**6822.23**	**6754.38**	**6643.31**	**6.27**	**0.51**	**31.38**	**33.74**	**9131.72**
Electricity (3)	6936.89	1.37	6211.97	6843.42	6854.00	6798.27	7.54	-0.36	-36.86	129.12	12201.50
Gas Water & Multiutilities (5)	6438.96	-0.13	5766.08	6447.56	6363.29	6245.67	5.92	0.81	20.77	7.47	8507.11
Financials (308)	**3652.17**	**3.05**	**3270.51**	**3544.22**	**3546.80**	**5055.35**	**4.69**	**2.01**	**10.58**	**28.30**	**3753.11**
Banks (10)	2264.73	2.70	2028.06	2205.20	2217.75	4000.99	5.81	2.24	7.66	0.02	1865.26
Nonlife Insurance (8)	2824.22	4.04	2529.09	2714.43	2711.00	3782.48	5.01	1.65	12.13	9.01	5434.28
Life Insurance/Assurance (7)	5615.08	5.93	5028.29	5300.61	5316.51	8431.73	6.59	1.74	8.73	84.87	6208.10
Real Estate Investment & Services (18)	2204.67	2.30	1974.28	2155.13	2151.81	2572.12	2.63	2.28	16.72	5.28	6263.88
Real Estate Investment Trusts (41)	2240.85	2.73	2006.67	2181.33	2198.53	2648.45	4.50	-0.26	-84.06	25.41	3134.54
General Financial (41)	8076.34	3.54	7232.35	7800.54	7761.57	9294.26	4.05	1.61	15.31	128.70	10241.22
Equity Investment Instruments (183)	9658.12	1.75	8648.83	9491.69	9442.37	10492.53	2.91	3.66	9.38	79.60	5677.27
Non Financials (308)	**3881.03**	**2.77**	**3475.45**	**3776.43**	**3751.62**	**4834.75**	**5.24**	**1.40**	**13.60**	**49.57**	**6419.94**
Technology (15)	**1766.42**	**2.16**	**1581.83**	**1729.15**	**1724.18**	**2149.06**	**3.83**	**0.84**	**31.18**	**13.03**	**2440.36**
Software & Computer Services (13)	1905.89	2.04	1706.72	1867.87	1860.68	2393.96	4.02	0.77	32.48	13.43	2784.33
Technology Hardware & Equipment (2)	4067.41	3.53	3642.36	3928.90	3961.28	3065.68	1.69	2.76	21.48	43.15	5025.58

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	5770.12	5769.49	5752.16	5808.65	5836.67	5826.30	5801.68	5786.15	5767.54	5837.55	5750.84
FTSE 250	15710.51	15760.07	15772.61	15869.42	16009.36	15987.61	15924.28	15891.01	15790.66	16016.90	15710.51
FTSE SmallCap	4519.10	4550.27	4559.68	4563.08	4578.04	4577.30	4579.58	4577.31	4569.10	4582.76	4519.10
FTSE All-Share	3176.53	3178.56	3171.46	3199.80	3217.11	3211.78	3198.83	3190.79	3179.10	3217.38	3171.46

Time of FTSE 100 Day's high:11:02:30 Day's Low09:00:30 FTSE 100 2010/11 High: 7674.56(17/01/2020) Low: 4993.89(23/03/2020)
Time of FTSE All-Share Day's high:11:01:00 Day's Low09:00:00 FTSE 100 2010/11 High: 4257.93(17/01/2020) Low: 2727.86(23/03/2020)

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FT 30 INDEX

	Apr 17	Apr 16	Apr 15	Apr 14	Apr 09	Yr Ago	High	Low
FT 30	2183.10	2107.40	2108.00	2208.50	2247.10	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
2107.4	2168.5	2170.9	3120.5	2209.2	2206.3	2194.8	2185	2171.9	2209.2	2107.4

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

FX: EFFECTIVE INDICES

	Apr 16	Apr 15	Mnth Ago
Australia	-	-	-
Canada	-	-	-
Denmark	-	-	-
Japan	-	-	-
New Zealand	-	-	-
Norway	-	-	-

	Apr 17	Apr 16	Mnth Ago
Sweden	-	-	-
Switzerland	-	-	-
UK	78.56	78.61	77.02
USA	-	-	-
Euro	-	-	-

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

FTSE GLOBAL EQUITY INDEX SERIES

Apr 16 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	8914	520.11	0.1	13.9	-18.3	790.41	-17.7	2.8
FTSE Global All Cap	7079	462.39	0.3	7.3	-0.3	624.68	0.2	2.5
FTSE Global Large Cap	1771	477.38	0.2	14.4	-15.9	746.78	-15.3	2.8
FTSE Global Mid Cap	2191	628.69	-0.2	12.2	-24.2	899.74	-23.8	2.8
FTSE Global Small Cap	4952	636.44	0.0	12.6	-26.4	877.03	-26.0	2.6
FTSE All-World	3962	308.59	0.1	14.1	-17.3	496.16	-16.7	2.8
FTSE World	2597	548.39	0.1	14.6	-17.4	1183.93	-16.9	2.8
FTSE Global All Cap ex UNITED KINGDOM In	8611	548.07	0.1	14.1	-17.6	818.15	-17.1	2.7
FTSE Global All Cap ex USA	7131	401.69	-0.4	9.8	-22.6	664.00	-21.9	3.7
FTSE Global All Cap ex JAPAN	7562	534.71	0.2	14.0	-18.4	820.01	-17.9	2.8
FTSE Global All Cap ex Eurozone	8264	549.76	0.1	14.2	-17.4	818.63	-16.8	2.7
FTSE Developed	2172	503.60	0.2	15.1	-16.8	771.93	-16.3	2.8
FTSE Developed All Cap	5641	520.22	0.2	14.9	-17.9	786.45	-17.3	2.7
FTSE Developed Large Cap	884	477.56	0.3	15.5	-15.3	744.79	-14.7	2.8
FTSE Developed Europe Large Cap	234	292.27	0.1	11.5	-23.9	536.43	-23.2	4.3
FTSE Developed Europe Mid Cap	355	454.49	-0.4	9.9	-28.1	731.78	-27.8	3.8
FTSE Dev Europe Small Cap	694	621.61	-0.1	9.4	-30.8	965.33	-30.5	3.8
FTSE North America Large Cap	254	614.44	0.6	18.0	-11.9	885.88	-11.3	2.2
FTSE North America Mid Cap	409	733.40	-0.1	14.1	-22.5	975.86	-22.1	2.2
FTSE North America Small Cap	1309	699.18	-0.2	14.0	-26.8	899.58	-26.4	2.2
FTSE North America	663	395.59	0.5	17.3	-13.8	582.87	-13.3	2.2
FTSE Developed ex North America	1509	211.47	-0.5	10.9	-22.3	376.91	-21.5	3.8
FTSE Japan Large Cap	181	336.02	-1.6	12.3	-15.3	466.41	-14.2	2.8
FTSE Japan Mid Cap	327	504.66	-0.3	14.3	-19.7	665.63	-18.7	2.6
FTSE Global wi JAPAN Small Cap	844	554.50	2.0	16.1	-20.3	757.56	-19.3	2.6
FTSE Japan	508	140.10	-1.3	12.7	-16.2	217.77	-15.1	2.8
FTSE Asia Pacific Large Cap ex Japan	921	605.15	-0.4	7.3	-16.7	1028.05	-16.3	3.2
FTSE Asia Pacific Mid Cap ex Japan	852	655.49	-0.7	5.4	-24.3	1068.19	-24.0	3.7
FTSE Asia Pacific Small Cap ex Japan	1814	434.43	-0.3	8.8	-20.0	692.37	-19.6	3.5
FTSE Asia Pacific Ex Japan	1773	469.34	-0.4	7.2	-17.4	846.97	-17.0	3.3
FTSE Emerging All Cap	3273	621.92	-0.3	6.0	-21.3	1003.00	-20.9	3.4
FTSE Emerging Large Cap	887	605.52	-0.2	6.6	-20.1	983.08	-19.6	3.2
FTSE Emerging Mid Cap	903	688.33	-0.4	2.7	-29.3	1108.85	-28.8	4.3
FTSE Emerging Small Cap	1483	584.13	-0.3	4.7	-22.7	901.45	-22.4	3.8
FTSE Emerging Europe	75	288.31	0.7	6.6	-34.5	519.55	-34.3	8.4
FTSE Latin America All Cap	242	540.44	-0.9	-0.7	-45.1	908.69	-44.7	4.3
FTSE Middle East and Africa All Cap	329	482.99	-1.3	6.6	-30.0	825.75	-28.7	4.6
FTSE Global wi UNITED KINGDOM All Cap In	303	246.88	0.1	10.4	-31.0	461.99	-30.3	5.4
FTSE Global wi USA All Cap	1783	672.82	0.5	17.2	-14.8	937.09	-14.3	2.1
FTSE Europe All Cap	1432	338.72	0.0	10.9	-25.5	597.73	-25.0	4.3
FTSE Eurozone All Cap	650	316.86	-0.3	11.2	-27.1	556.63	-26.9	4.1
FTSE EDHEC-Risk Efficient All-World	3962	341.70	-0.1	13.0	-21.0	507.16	-20.5	3.0
FTSE EDHEC-Risk Efficient Developed Europe	589	255.34	-0.2	10.8	-24.5	419.34	-24.1	3.8
Oil & Gas	150	204.31	-2.7	13.5	-43.9	367.68	-43.1	7.7
Oil & Gas Producers	104	195.12	-3.0	14.8	-44.7	358.75	-44.0	7.9

Apr 16 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	36	155.37	-1.8	-1.8	-42.0	252.25	-41.2	7.6
Basic Materials	351	394.28	-0.5	-0.5	-23.3	656.24	-22.5	4.2
Chemicals	159	576.30	-0.6	-0.6	-23.2	949.35	-22.7	3.6
Forestry & Paper	20	205.06	-1.8	-1.8	-26.3	383.75	-25.1	4.2
Industrial Metals & Mining	93	245.03	-0.9	-0.9	-35.2	410.02	-34.6	5.3
Mining	79	607.27	0.0	0.0	-16.7	1035.97	-15.2	4.7
Industrials	747	342.31	-0.7	-0.7	-23.7	521.23	-23.3	2.6
Construction & Materials	148	410.97	-1.2	-1.2	-25.9	655.28	-25.4	2.9
Aerospace & Defense	37	565.27	-1.5	-1.5	-36.8	847.92	-36.6	3.2
General Industrials	64	168.66	-1.4	-1.4	-26.0	280.66	-25.3	3.4
Electronic & Electrical Equipment	140	404.87	-0.6	-0.6	-20.5	558.93	-20.1	2.0
Industrial Engineering	146	636.90	-0.8	-0.8	-23.2	966.22	-22.5	2.9
Industrial Transportation	126	598.24	-0.2	-0.2	-21.0	915.12	-20.6	2.8
Support Services	86	417.22	-0.1	-0.1	-17.3	601.44	-16.9	1.7
Consumer Goods	546	434.32	-0.2	-0.2	-14.9	689.88	-14.3	3.0
Automobiles & Parts	132	287.53	-1.1	-1.1	-24.5	447.30	-23.8	4.1
Beverages	66	590.40	-0.3	-0.3	-16.6	945.49	-16.2	2.8
Food Producers	130	633.33	0.7	0.7	-7.1	1022.76	-6.7	2.4
Household Goods & Home Construction	60	443.93	0.1	0.1	-12.4	701.03	-11.8	2.8
Leisure Goods	43	226.94	0.3	0.3	-6.3	311.12	-5.7	1.3
Personal Goods	102	756.49	-0.3	-0.3	-16.1	1114.22	-15.8	2.1
Tobacco	13	845.48	-0.3	-0.3	-15.2	2039.79	-13.5	7.1
Health Care	282	587.50	1.8	1.8	-3.8	895.47	-3.0	2.0
Health Care Equipment & Services	96	1074.85	2.0	2.0	-8.3	1288.41	-8.1	1.0
Pharmaceuticals & Biotechnology	186	403.98	1.7	1.7	-1.6	652.61	-0.5	2.5
Consumer Services	452	500.50	1.3	1.3	-10.3	696.84	-9.9	1.5
Food & Drug Retailers	66	252.50	0.7	0.7	-14.4	375.84	-13.8	2.7
General Retailers	148	912.70	2.2	2.2	0.8	1223.84	1.1	1.0
Media	88	321.55	0.6	0.6	-16.3	450.38	-16.0	1.7
Travel & Leisure	150	365.26	-0.5	-0.5	-29.5	519.72	-29.0	2.6
Telecommunication	94	137.48	0.1	0.1	-14.3	291.37	-12.9	4.9
Fixed Line Telecommuniations	41	113.17	0.2	0.2	-16.4	268.89	-14.7	5.7
Mobile Telecommunications	53	148.04	-0.1	-0.1	-11.2	274.81	-10.5	3.9
Utilities	190	277.54	-0.1	-0.1	-12.7	593.41	-12.0	3.8
Electricity	133	312.09	-0.1	-0.1	-12.3	658.18	-11.6	3.7
Gas Water & Multiutilities	57	278.12	0.0	0.0	-13.4	613.09	-12.9	4.1
Financials	861	186.90	-1.6	-1.6	-29.4	332.64	-28.7	4.2
Banks	280	132.41	-2.7	-2.7	-38.0	257.84	-37.3	6.1
Nonlife Insurance	73	235.83	-0.9	-0.9	-23.6	364.16	-23.1	2.7
Life Insurance	58	165.85	-1.6	-1.6	-31.3	289.04	-30.7	4.6
Financial Services	211	290.03	-0.9	-0.9	-21.7	420.96	-21.2	2.2
Technology	289	343.95	1.3	1.3	-4.3	437.96	-4.1	1.3
Software & Computer Services	149	597.04	1.5	1.5	-1.8	711.70	-1.7	0.7
Technology Hardware & Equipment	140	257.55	1.2	1.2	-7.4	348.65	-6.9	2.1
Alternative Energy	10	108.84	-1.1	-1.1	-14.0	153.51	-13.4	1.5
Real Estate Investment & Services	158	288.68	-1.4	-1.4	-21.8	519.55	-21.2	3.7
Real Estate Investment Trusts	81	397.12	-0.8	-0.8	-19.9	854.10	-19.0	4.6
Real Estate Investment & Services	152	258.63	2.8	2.8	-30.0	463.40	-29.7	4.2

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FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Pharmace & Biotech	-0.30	Chemicals	-22.37	Financial Services	-25.90
Health Care	-2.97	Leisure Goods	-22.81	Mobile Telecomms	-26.10
Food & Drug Retailer	-4.12	FTSE SmallCap Index	-23.03	Construct & Material	-26.93
Tech Hardware & Eq	-6.52	Software & Comp Serv	-23.09	FTSE 250 Index	-27.53
Electronic & Elec Eq	-7.75	FTSE 100 Index	-23.27	Consumer Services	-28.31
Gas Water & Multi	-9.73	Nonlife Insurance	-23.83	Financials	-29.02
Tobacco	-10.35	Health Care Eq & Srv	-23.83	Telecommunications	-29.17
Personal Goods	-10.58	Basic Materials	-23.96	General Retailers	-30.14
Utilities	-11.48	FTSE All{HY-}Share Index	-23.98	Industrial Metals &	-31.34
Consumer Goods	-13.69	Mining	-24.01	Life Insurance	-31.63
Equity Invest Instr	-14.10	Support Services	-24.06	Fixed Line Telecomms	-35.91
Household Goods & Ho	-15.14	Forestry & Paper	-24.32	Industrial Transport	-37.04
Beverages	-16.37	Industrial Eng	-24.62	Oil & Gas Producers	-38.32
Electricity	-17.30	Industrials	-24.64	Oil & Gas	-38.56
Food Producers	-18.84	Media	-24.79	Banks	-39.38
Technology	-21.95	Real Est Invest & Se	-24.93	Travel & Leisure	-39.57
NON FINANCIALS Index	-22.11	Aerospace & Defense	-25.52	Automobiles & Parts	-52.19
		Real Est Invest & Tr	-25.69	Oil Equipment & Serv	-54.05

FTSE 100 SUMMARY

FTSE 100	Closing Price	Week's Change
3I Group PLC	769.80	-3.40
Admiral Group PLC	2207	-9.00
Anglo American PLC	1422.4	-40.20
Antofagasta PLC	782.60	20.40
Ashtead Group PLC	1767	-189.00
Associated British Foods PLC	1984	39.00
Astrazeneca PLC	7970	849.00
Auto Trader Group PLC	438.70	24.70
Aveva Group PLC	3351	-238.00
Aviva PLC	247.80	-16.80
Bae Systems PLC	558.40	20.00
Barclays PLC	90.71	-6.87
Barratt Developments PLC	485.70	-26.70
Berkeley Group Holdings (The) PLC	4027	52.00
Bhp Group PLC	1315.8	1.80
BP PLC	303.55	-32.20
British American Tobacco PLC	2943.5	-77.00
British Land Company PLC	389.50	-20.70
Bt Group PLC	120.60	-5.20
Bunzl PLC	1670.5	-23.50
Burberry Group PLC	1471.5	8.00
Carnival PLC	912.00	-53.60
Centrica PLC	31.81	-3.77
Coca-Cola Hbc AG	2005	-24.00
Compass Group PLC	1332	-27.50
Crh PLC	2220	-179.00
Croda International PLC	4620	208.00
Dcc PLC	5514	156.00
Diageo PLC	2711	78.00
Easyjet PLC	638.80	-42.40
Evraz PLC	260.50	-3.80
Experian PLC	2378	126.00
Ferguson PLC	5274	-26.00
Flutter Entertainment PLC	9018	1184
Fresnillo PLC	707.80	-6.60
Glaxosmithkline PLC	1660.6	116.40
Glencore PLC	141.28	-3.48
Halma PLC	2119	149.00
Hargreaves Lansdown PLC	1532.5	43.00
Hikma Pharmaceuticals PLC	2275	50.00
HSBC Holdings PLC	414.35	-14.50
Imperial Brands PLC	1564.5	-100.50
Informa PLC	449.40	-13.70
Intercontinental Hotels Group PLC	3563	-147.00
Intermediate Capital Group PLC	962.00	-134.00
International Consolidated Airlines Group S.A.	233.40	-13.30
Intertek Group PLC	4959	117.00
Itv PLC	71.22	-5.16
Jd Sports Fashion PLC	504.20	-60.40
Johnson Matthey PLC	1972.5	-8.00
Just Eat Takeaway.Com N.V.	7784	226.00
Land Securities Group PLC	640.40	-36.60
Legal & General Group PLC	205.40	-7.60
Lloyds Banking Group PLC	30.45	-2.94
London Stock Exchange Group PLC	7482	250.00
M&G PLC	130.50	-11.50
Meggitt PLC	275.70	-5.80
Melrose Industries PLC	91.12	-9.83
Mondi PLC	1341.5	-8.50
Morrison (Wm) Supermarkets PLC	185.90	4.95
National Grid PLC	904.20	-4.00
Next PLC	4435	-189.00
Nmc Health PLC	0.10	0.00
Ocado Group PLC	1569	201.00
Pearson PLC	488.00	-34.00
Pennon Group PLC	1087	-1.50
Persimmon PLC	1998	-113.00
Phoenix Group Holdings PLC	552.00	-47.60
Polymetal International PLC	1521	11.00
Prudential PLC	1042	-5.00
Reckitt Benckiser Group PLC	6248	80.00
Relx PLC	1839	47.50
Rentokil Initial PLC	435.40	43.10
Rightmove PLC	482.30	-24.70
Rio Tinto PLC	3816.5	-36.50
Rolls-Royce Holdings PLC	334.50	-15.70
Royal Bank Of Scotland Group PLC	106.20	-16.30
Royal Dutch Shell PLC	1343.2	-128.80
Royal Dutch Shell PLC	1370.2	-139.40
Rsa Insurance Group PLC	358.80	-22.30
Sage Group PLC	631.80	17.00
Sainsbury (J) PLC	201.30	1.10
Schroders PLC	2557	-103.00
Scottish Mortgage Investment Trust PLC	621.00	15.00
Segro PLC	821.80	-4.60
Severn Trent PLC	2312	16.00
Smith & Nephew PLC	1541	-23.00
Smith (Ds) PLC	285.50	-22.80
Smiths Group PLC	1185.5	-51.50
Smurfit Kappa Group PLC	2298	-24.00
Spirax-Sarco Engineering PLC	8822	422.00
Sse PLC	1220.5	-28.00
St. James's Place PLC	779.60	-45.60
Standard Chartered PLC	406.50	-44.40
Standard Life Aberdeen PLC	217.20	-13.00
Taylor Wimpey PLC	136.35	-5.55
Tesco PLC	238.10	6.10
Unilever PLC	4115	-9.00
United Utilities Group PLC	889.80	16.20
Vodafone Group PLC	108.88	-4.14
Whitbread PLC	2700	-264.00
Wpp PLC	558.20	-14.80

UK STOCK MARKET TRADING DATA

	Apr 17	Apr 16	Apr 15	Apr 14	Apr 09	Yr Ago
	-	-	-	-	-	-
Order Book Turnover (m)	356.06	200.25	374.78	374.78	377.09	377.09
Order Book Bargains	1307964.00	1367329.00	1456989.00	1456989.00	1456989.00	1456989.00
Order Book Shares Traded (m)	2312.00	2715.00	3145.00	3145.00	3145.00	3145.00
Total Equity Turnover (£m)	9702.08	7840.09	7972.21	7972.21	8015.75	8015.75
Total Mkt Bargains	1518402.00	1628829.00	1715483.00	1715483.00	1715483.00	1715483.00
Total Shares Traded (m)	6087.00	6893.00	7030.00	7030.00	7030.00	7030.00

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

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UK RIGHTS OFFERS

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

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

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Invesco Perpetual UK Smaller Companies Inv Tst	Pre			47.262	13.397L	143.340	40.780L	0.00000	7.65000	-	3.750	11.300
Mobeus Income & Growth 4 VCT	Pre			6.093	1.572	8.950	2.200	2.00000	4.00000	Dec 30	15.000	8.000
Octopus Titan VCT	Pre			67.280	11.231	8.000	1.800	0.00000	3.00000	-	2.000	5.000
RA International Group	Pre	69.064	54.805	13.259	9.827	0.074	0.063	0.00000	1.26900	-	0.000	1.300
Schroder Japan Growth Fund	Int			5.303	27.855L	3.910	22.580L	0.00000	0.00000	-	4.700	4.000

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)
03/23	0.69		SYME	Supply@ME Capital PLC	0.35	-0.02	1.10	0.25	11464.2

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

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

			52 Week				
Stock	Price	+/-Week	High	Low	Yld	P/E	MCap m
Australia (A$)							
ANZ	16.56	0.02	29.30	14.10	10.39	7.21	29878.05
BHPBilltn	31.28	-0.22	42.33	24.05	6.28	11.33	58618.7
CmwBkAu	61.06	-0.70	91.05	53.44	7.36	12.87	68761.82
CSL	328.42	-0.58	342.75	189.14	0.84	49.79	94861.62
NatAusBk	16.39	0.31	30.00	13.20	11.95	8.73	31114.14
Telstra	3.16	0.02	4.01	2.87	3.30	17.51	23908.26
Wesfarmers	38.12	0.62	47.42	29.75	4.87	20.81	27495.6
Westpc	15.87	-0.09	30.05	13.47	12.74	7.78	36462.41
Woolworths	37.40	2.30	43.96	31.02	2.84	32.17	30051.35
Belgium (€)							
AnBshInBv	41.80	-1.82	92.71	29.03	4.53	9.36	77069.47
KBC Grp	44.78	-3.76	73.56	33.44	7.94	7.82	20303.75
Brazil (R$)							
Ambev	11.60	-0.50	20.77	10.36	3.54	12.94	34621.98
Bradesco	18.87	-1.81	32.63	14.05	2.22	7.18	14431.39
Cielo	4.53	-0.30	9.11	3.94	14.03	6.30	2334.45
ItauHldFin	22.13	-0.62	32.79	19.46	7.15	6.70	20813.17
Petrobras	16.70	-0.16	33.65	10.50	3.59	6.12	23575.31
Vale	44.00	0.72	57.36	32.45	-	11.58	44104.12
Canada (C$)							
BCE	58.48	1.07	65.45	46.03	5.76	16.42	37678.17
BkMontrl	69.99	-5.11	106.51	55.76	5.93	7.95	31894.84
BkNvaS♦	54.45	-2.95	76.75	46.38	6.54	7.94	47012.06
Brookfield	47.46	-1.66	60.48	31.35	1.89	8.96	53179.25
CanadPcR♦	313.95	-1.81	365.69	252.00	1.02	17.54	30502.84
CanImp	80.90	-5.27	115.96	67.52	7.07	7.16	25633.51
CanNatRs	18.74	-0.04	42.57	9.80	8.38	5.11	15779.14
CanNatRy	111.87	0.68	127.96	92.01	1.96	18.78	56768.95
Enbridge	41.28	1.15	57.32	33.06	7.31	15.36	59549.96
GtWesLif	23.06	-0.54	35.60	18.88	7.32	9.05	15218.95
ImpOil	17.18	-0.89	40.59	10.27	5.13	4.46	9027.06
Manulife	17.36	-0.52	27.78	12.58	5.89	6.13	23987.67
Nutrien	50.25	-1.21	73.25	34.80	4.64	22.31	20401.11
RylBkC	87.47	-0.78	109.68	72.00	4.76	9.65	88736.18
Suncor En	21.37	-1.38	46.00	14.02	8.03	11.25	23326.49
ThmReut	101.74	2.42	109.99	75.91	2.05	209.21	35882.36
TntoDom♦	56.92	-3.31	77.96	49.01	5.24	8.58	73528.87
TrnCan	63.28	-3.00	76.58	47.05	5.00	13.71	42306.87
ValeantPh	30.80	0.74	36.02	14.01	-	-4.62	8158.48
China (HK$)							
AgricBkCh	3.11	-0.01	3.69	2.69	6.18	4.78	12334.57
Bk China	2.98	-0.01	3.82	2.71	6.86	4.43	32152.77
BkofComm	4.82	0.04	6.73	4.20	6.87	4.42	21773.88
BOE Tech	0.60	0.00	1.05	0.47	-	23.72	15.40
Ch Coms Cons	5.23	-0.18	8.09	4.73	4.99	4.06	2987.68
Ch Evrbrght	3.05	0.01	3.93	2.65	5.82	4.54	4989.46
Ch Rail Cons	8.60	-0.19	10.18	7.30	2.69	5.87	2303.9
Ch Rail Gp	4.42	-0.12	6.52	3.45	3.20	5.22	2399.43
ChConstBk	6.12	-0.15	7.16	5.55	5.54	5.34	189843.13
China Vanke	25.55	-0.55	34.75	21.65	4.52	6.77	5201.86
ChinaCitic	3.71	-0.06	5.20	3.37	6.83	3.70	7123.79
ChinaLife	16.08	0.40	22.90	11.64	1.10	12.72	15438.43
ChinaMBank	35.30	0.50	42.75	29.80	2.94	9.10	20909.72
ChinaMob	60.30	-1.30	75.85	45.20	5.18	10.30	159304.17
ChinaPcIns	24.45	0.55	34.75	17.90	4.52	7.11	8755.18
ChMinsheng	5.67	-0.04	6.15	4.91	6.74	4.25	6086.96
ChMrchSecs	17.89	0.02	19.75	14.74	1.48	22.23	14458.34
Chna Utd Coms	5.29	-0.23	7.48	5.00	1.01	33.47	16072.42
ChShenEgy	14.24	0.08	18.00	11.96	7.02	5.63	6244.28
ChShpbldng	4.24	-0.03	6.88	4.05	0.21	221.84	10955.17
ChStConEng	5.27	-0.02	6.65	4.93	3.21	5.69	30722.6
ChUncHK	5.00	-0.26	9.79	3.84	3.02	12.50	19739.77
CNNC Intl	4.45	-0.02	6.37	4.32	2.71	15.36	9788.33
CSR	4.10	-0.01	7.28	3.60	4.04	8.86	2312.29
Daqin	6.85	-0.01	8.85	6.69	7.05	7.09	14391.2
Gree Elec Apl	0.08	0.00	0.37	0.01	-	-0.02	3.65
GuosenSec	10.91	-0.18	14.28	10.38	1.11	17.78	12642.27
HaitongSecs	7.18	0.02	10.60	6.50	2.30	8.36	3158.62
Hngzh HikVDT	30.24	0.15	40.09	23.55	2.00	23.30	34572.64
Hunng Pwr	2.69	-0.12	5.22	2.24	4.25	20.22	1631.41
IM Baotou Stl	1.14	-0.01	1.87	1.10	0.62	23.34	5103.2
In&CmBkCh	5.14	-0.07	6.11	4.81	5.38	5.43	57560.94
IndstrlBk	16.06	0.03	20.49	14.93	4.32	5.22	44517.2
Kweichow	1226	67.50	1241.61	840.00	1.19	37.42	217638.74
Midea	0.71	0.01	1.50	0.58	6.87	-2.56	19.70
New Ch Life Ins	25.40	0.80	46.80	20.45	3.35	5.44	3389.03
PetroChina	2.76	-0.22	5.17	2.20	5.33	10.99	7513.53
PingAnIns	78.60	2.35	101.00	69.00	2.53	8.93	75528.93
PngAnBnk	12.89	0.15	17.60	11.60	1.08	9.27	35348.55
Pwr Cons Corp	3.76	-0.04	6.14	3.64	2.62	7.95	5921.47
SaicMtr	19.00	-0.47	30.30	17.46	6.67	7.58	31369.86
ShenwanHong	0.04	0.00	0.13	0.04	-	-2.29	48.61
ShgPdgBk	10.20	0.00	13.33	9.82	3.45	5.00	40509.05
Sinopec Corp	3.87	-0.14	6.19	3.20	11.06	9.03	12739.63
Sinopec Oil	2.05	-0.05	3.16	1.90	-	92.67	3488.76
Denmark (kr)							
DanskeBk	73.52	-0.54	130.80	68.04	11.23	4.29	9253.02
MollerMrsk	6550	50.00	10555	4976	2.23	44.04	9619.18
NovoB	431.05	24.60	447.70	310.15	1.92	26.20	117197.02
Finland (€)							
Nokia	3.19	0.21	5.18	2.08	3.19	-44.83	19626.96
SampoA	25.88	-2.16	42.55	21.34	11.19	12.49	15616.37
France (€)							
Airbus Grpe	56.80	-4.20	139.40	48.12	2.95	11.53	48438.77
AirLiquide	120.80	2.35	140.70	94.86	2.05	26.02	62254.89
AXA	14.92	-0.61	25.62	11.84	9.23	23.14	39294.23
BNP Parib	25.47	-2.94	54.22	24.51	12.05	4.23	34662.19
ChristianDior	348.20	18.20	498.20	252.40	1.73	22.00	68440.17
Cred Agr	6.53	-0.44	13.80	5.70	10.73	5.16	20511.58
Danone	63.62	5.02	82.38	50.26	3.13	18.54	47531.48
EDF	7.25	-0.75	13.61	5.98	4.16	4.52	24508.33
Engie SA	9.49	-0.39	16.80	8.63	8.12	27.99	25170.67
EssilorLuxottica	111.10	4.40	145.00	86.76	1.89	33.58	52937.11
Hermes Intl	684.80	43.00	725.60	516.00	0.68	48.16	78720.69
LOreal	247.60	2.80	278.50	196.00	1.60	34.38	150548.81
LVMH	358.00	10.60	439.05	278.70	1.72	26.54	196872.45
Orange	11.37	0.00	15.38	8.84	6.33	15.58	32919.05
PernodRic	139.95	0.45	179.50	112.25	0.99	24.85	40447.92
Renault	16.38	-2.16	64.20	12.77	22.27	1.88	5274.54
Safran	80.50	0.90	152.30	51.10	2.32	15.67	37449.9
Sanofi	86.57	4.44	95.06	67.65	3.64	29.45	118194.89
Sant Gbn	24.81	-1.17	39.57	16.41	5.51	-120.73	14714.93
Schneider	82.88	2.62	105.50	61.72	2.91	19.70	52530.42
SFR Group	34.50	0.00	34.56	21.87	-	-23.02	17905.81
SocGen	13.94	-1.08	32.23	12.80	16.03	4.41	12955.38
Total	31.02	-2.61	51.44	21.12	8.71	9.27	87885.3
UnibailR	190.00	0.35	236.45	177.35	5.80	17.44	22215.04
Vinci	76.46	-0.04	107.35	54.76	3.45	13.50	50471.52
Vivendi	20.63	-0.47	26.42	16.60	2.49	52.82	26629.35
Germany (€)							
Allianz	163.90	-0.98	232.60	117.10	5.58	8.80	74452.97
BASF	45.58	-1.32	74.61	37.36	6.83	17.35	45580.89
Bayer	58.57	1.10	78.34	44.86	4.65	24.47	62655.8
BMW	51.91	1.09	78.30	36.60	6.85	6.79	34027.58
Continental	73.12	0.08	157.40	51.45	6.60	-67.27	15924.51
Daimler	29.04	-0.80	60.00	21.02	10.89	13.44	33829.96
Deut Bank	5.97	-0.15	10.37	4.45	1.87	-2.68	13437.77
Deut Tlkm	12.51	0.15	16.75	10.41	5.44	15.68	64861.11
DeutsPost	26.19	0.52	35.00	19.11	4.46	12.51	35262.98
E.ON	8.83	-0.09	11.56	7.60	4.95	32.19	25396.2
Fresenius Med	64.84	1.60	81.10	53.50	1.76	16.83	21494.5
Fresenius SE	36.76	-1.25	52.32	24.25	2.21	10.74	18096.25
HenkelKgaA	69.65	1.75	90.30	54.65	2.67	13.58	19703.37
Linde	172.95	4.20	208.60	130.45	1.75	49.88	100369.56
MuenchRkv	195.45	3.10	284.20	141.10	4.81	10.04	30714.45
SAP	113.06	3.06	129.60	82.13	1.29	41.80	151242.09
Siemens	80.51	-0.83	119.90	58.77	4.59	12.95	74517.08
Volkswgn	134.50	1.50	185.00	99.16	3.63	4.97	43217.89
Hong Kong (HK$)							
AIA	72.60	1.00	88.50	60.05	1.13	19.88	113240.47
BOC Hold	24.20	0.05	35.90	20.30	5.91	8.28	33012.66
Ch OSLnd&Inv	26.15	-0.65	31.00	21.80	3.35	6.30	36966.44
ChngKng	47.80	1.30	66.85	33.40	3.87	5.94	22778.76
Citic Ltd	7.91	-0.09	11.90	7.40	5.05	4.43	29689.23
Citic Secs	14.90	0.38	18.72	12.60	2.60	13.00	4380.04
CK Hutchison	58.10	0.30	83.60	45.05	5.32	5.85	28907.89
CNOOC	8.39	-0.53	15.06	6.24	8.11	5.87	48331.76
HangSeng	137.00	-0.90	212.60	124.40	5.35	11.43	33794.71
HK Exc&Clr	247.00	-0.40	283.60	206.00	2.76	33.41	40405.1
MTR	43.15	0.85	55.75	38.00	2.71	18.76	34286.15
SandsCh	31.85	1.40	45.45	25.15	6.06	17.23	33240.96
SHK Props	108.90	0.70	137.80	89.90	4.21	7.21	40716.39
Tencent	409.60	18.20	420.00	312.20	0.24	41.43	504874.8
India (Rs)							
Bhartiartl	502.45	13.75	568.85	305.37	-	-9.21	35892.38
HDFC Bk	910.30	-14.75	1305.5	738.75	0.83	18.95	65357.54
Hind Unilevr	2385	12.75	2614.3	1656	1.02	75.16	67605.98
HsngDevFin	1680.6	-22.50	2499.9	1473.45	1.26	13.24	38114.95
ICICI Bk	375.55	32.85	552.20	268.30	0.27	25.73	31828.73
Infosys	628.75	-7.50	847.00	509.25	3.04	15.91	35063.48
ITC	188.10	2.85	310.00	134.60	3.09	15.29	30275.4
L&T	932.90	120.10	1607	661.00	1.95	13.47	17147.75
OilNatGas	76.30	-1.00	178.90	50.00	9.27	4.44	12568.58
RelianceIn	1224	4.05	1617.55	875.65	0.54	17.04	101599.68
SBI NewA	193.25	5.50	373.80	173.55	-	12.83	22582.84
SunPhrmInds	457.10	2.65	488.50	312.00	0.61	27.15	14360.6
Tata Cons	1806.2	40.05	2296.2	1506.05	1.79	20.70	88744.87
Indonesia (Rp)							
Bk Cent Asia	22300	200.00	24700	16800	-	-	38879.26
Israel (ILS)							
TevaPha	36.80	3.77	56.60	21.75	-	-11.99	11205.56
Italy (€)							
Enel	6.21	-0.24	8.61	5.15	4.58	24.45	68736.62
ENI	8.59	-0.72	15.86	6.26	9.94	12.25	33980.94
Generali	12.53	-0.34	19.63	10.20	7.38	8.65	21417.82
IntSPaolo	1.38	-0.07	2.63	1.31	14.54	5.42	26239.03
Unicred	6.86	-0.57	14.44	6.42	4.00	3.13	16690.25
Japan (¥)							
AstellasPh	1775.5	95.50	1987	1375	2.05	16.21	30742.65
Bridgestne	3281	-89.00	4734	2861.5	4.92	8.61	21777.67
Canon	2260	-27.00	3276	2035	7.15	14.67	28033.53
CntJpRwy	17615	-110.00	24780	14340	0.80	8.20	33747.41
Denso	3770	24.00	5225	3021	3.47	15.76	27626.62
EastJpRwy	8156	-124.00	10830	7060	1.80	12.06	28666.98
Fanuc	14950	-45.00	22060	12020	2.18	37.65	28368.06
FastRetail	50880	3930	70230	39910	0.90	34.25	50193.24
Fuji Hvy Ind	2088	102.00	3184	1671.5	6.44	12.12	14936.43
Hitachi	3108	-59.00	4693	2524	2.70	16.01	27959.16
HondaMtr	2469.5	51.00	3259	2120	4.24	9.83	41602.62
JapanTob	1980.5	12.50	2607.5	1862	7.75	9.46	36837.94
KDDI	3205	101.00	3451	2440.5	3.21	12.45	70206.67
Keyence	37720	1190	40520	28905	0.25	47.97	85317.78
MitsbCp	2209.5	-6.50	3090	2094.5	5.37	7.08	32674.03
MitsubEst	1737.5	48.00	2283	1291	1.72	20.59	22480.03
MitsubishiEle	1304.5	-23.00	1658	1096.5	2.86	13.17	26049.98
MitsuiFud	1837	-70.50	3035	1538	2.34	11.43	16729.9
MitUFJFin	412.90	4.90	603.00	380.00	5.75	6.79	52155.4
Mizuho Fin	121.50	-1.10	177.50	108.40	5.77	42.11	28692.76
Murata Mfg	5773	74.00	6920	4304	3.03	83.54	36283.1
NipponTT	2568	0.00	2908	2153	3.45	12.19	93161.84
Nissan Mt	364.70	1.20	966.00	311.20	9.86	36.60	14315.69
Nomura	416.10	-27.10	586.40	330.70	4.04	5.88	13519.39
Nppn Stl	843.80	-10.40	2066	807.50	5.98	4.36	7457.63
NTTDCMo	3262	-26.00	3475	2335	3.29	19.09	97947.35
Panasonic	791.40	-40.60	1264	691.70	3.54	6.85	18056.85
Seven & I	3708	235.00	4485	3113	2.66	14.86	30568.95
ShnEtsuCh	11900	645.00	13945	8751	1.65	16.95	46112.88
Softbank	4735	552.00	6012.5	2609.5	0.65	-9.39	92027.63
Sony	6969	258.00	8113	5070	0.54	14.38	81729
SumitomoF	2705	-22.00	4167	2507.5	6.39	7.55	34544.79
Takeda Ph	3592	112.00	4562	2894.5	4.68	-55.69	52660.63
TokioMarine	5035	-50.00	6317	4167	3.43	13.59	32872.08
Toyota	6756	76.00	8026	5771	3.04	8.37	205020.33
Mexico (Mex$)							
AmerMvl	13.30	-0.65	16.82	12.33	1.67	11.76	24903.22
FEMSA UBD	137.62	-5.46	192.50	127.25	2.24	11.14	12411.82
WalMrtMex	57.89	1.46	60.13	47.76	2.00	21.36	42183.78
Netherlands (€)							
Altice	3.63	0.10	6.86	2.26	-	3.22	4103.67
ASML Hld	271.55	15.90	294.40	165.04	1.13	45.38	125863.38
Heineken	78.44	3.34	105.00	68.82	2.10	22.99	49198.19
ING	4.84	-0.57	12.09	4.23	14.28	4.12	20552.41
Unilever	45.68	-0.01	57.77	38.42	3.54	12.58	72657.18
Norway (Kr)							
DNB	113.05	1.05	178.10	94.26	8.44	6.02	17252.5
Equinor	129.55	-6.25	203.90	95.20	7.93	7.52	41768.72
Telenor	161.70	8.70	190.80	130.75	5.94	36.04	22524.47
Qatar (QR)							
QatarNtBk	17.70	-1.30	21.25	15.71	3.18	12.99	44901.05
Russia (RUB)							
Gzprm neft	184.68	-7.32	272.68	158.17	10.42	2.38	58989.66
Lukoil	4620	-510.00	6810	3663	6.27	4.08	43190.18
MmcNrlskNckl	19718	-932.00	23656	13352	12.76	7.72	42100.58
Novatek	957.80	-104.80	1382.2	682.80	3.15	2.88	39238.67
Rosneft	313.90	-30.10	489.90	229.80	9.57	4.36	44886.57
Sberbank	191.80	-10.19	270.80	172.15	9.67	4.10	55864.22
Surgutneftegas	34.36	-2.72	54.89	24.06	2.19	2.85	16562.57
Saudi Arabia (SR)							
AlRajhiBnk	53.00	-2.30	76.90	51.00	6.66	13.87	35258.13
NatnlcombnK	34.95	-1.75	64.40	30.50	6.37	9.09	27900.48
SaudiBasic	76.30	-3.30	126.60	61.90	5.65	15.76	60910.05
SaudiTelec	90.00	-2.70	117.40	72.30	4.50	15.55	47897.82
Singapore (S$)							
DBS♦	19.28	0.14	28.64	16.65	6.49	7.48	34431.68
JardnMt US$	53.67	4.16	66.69	42.59	3.11	12.25	39322.06
JardnStr US$	23.77	0.28	40.00	17.81	1.40	8.49	26340.35
OCBC	8.86	-0.09	12.19	7.80	5.41	7.95	27404.31
SingTel	2.76	0.05	3.56	2.19	6.33	35.50	31698.37
UOB	20.02	-0.15	27.97	17.28	5.23	7.90	23478.23
South Africa (R)							
Firstrand	37.67	-2.94	71.79	31.13	9.91	5.32	11196.09
MTN Grp	52.75	1.38	114.43	26.25	12.46	8.34	5266.38
Naspers N	2775.54	186.94	3750.01	1843.8	0.33	19.96	64046.33
South Korea (KRW)							
HyundMobis	179500	1500	268500	126000	2.88	7.75	14008.47
KoreaElePwr	20600	1450	29500	15550	-	-7.08	10857.52
SK Hynix	84100	-900.00	106000	62400	1.84	10.05	50266.83
SmsungEl	51400	2300	62800	40850	2.74	16.33	251926.79
Spain (€)							
BBVA	2.66	-0.34	5.63	2.56	9.50	5.83	19342.34
BcoSantdr	1.96	-0.21	4.64	1.93	8.55	6.05	35456.24
CaixaBnk	1.61	-0.14	3.00	1.56	6.05	6.35	10469.91
Iberdrola	8.98	-0.12	11.35	7.70	3.80	17.32	63133.3
Inditex	25.55	0.29	32.28	18.51	2.56	21.56	86709.4
Repsol	7.79	-0.50	15.67	5.92	11.61	-3.22	13277.17
Telefonica	4.11	-0.22	7.59	3.53	9.47	24.84	23231.05
Sweden (SKr)							
AtlasCpcoB	304.10	12.80	350.40	223.20	1.07	20.63	11894.39
Ericsson	86.60	6.60	96.74	59.54	1.19	-31.62	26669.35
H & M	135.45	-1.05	214.35	98.13	7.52	16.80	19831.21
Investor	485.90	23.20	568.60	370.10	2.75	16.13	22183.89
Nordea Bk	55.34	-1.84	86.73	48.00	13.76	16.18	22465
SEB	67.52	-1.86	104.90	59.80	8.94	7.23	14686.34
SvnskaHn	79.70	-2.38	113.80	71.80	6.94	9.23	15536.22
Swedbank	107.58	0.24	162.70	101.40	13.28	6.09	12206.68
Telia Co	35.58	0.55	44.90	30.29	6.74	18.48	15012.69
Volvo	124.40	-2.60	175.10	95.00	4.04	7.01	20599.18
Switzerland (SFr)							
ABB	16.98	-0.62	24.69	14.11	4.53	38.50	38112.9
CredSuisse	7.93	-0.69	14.14	6.18	3.26	7.40	20973.07
Nestle	106.04	3.82	113.20	83.37	2.18	26.19	326699.15
Novartis	86.00	3.88	96.38	65.09	3.02	30.62	225016.02
Richemont	55.14	0.70	87.44	44.64	3.57	20.87	29797.69
Roche	326.85	18.15	351.60	255.95	2.51	22.22	237727.23
Swiss Re	77.22	-0.90	117.05	52.68	6.48	35.44	26173.4
Swisscom	517.60	0.60	577.80	446.70	4.00	17.03	27757.84
Syngent	453.40	1.40	471.20	402.50	-	39.22	43035.76
UBS	9.27	-0.41	13.81	7.00	7.26	9.09	37034.47
Zurich Fin	303.20	-16.20	439.90	248.70	5.74	12.01	47227.62
Taiwan (NT$)							
Chunghwa Telecom	108.50	1.50	123.50	103.00	4.06	24.21	28006.17
Formosa PetChem	82.60	1.00	119.00	66.10	5.71	31.27	26181.43
HonHaiPrc	75.80	1.80	101.50	65.70	5.19	8.71	34964.82
MediaTek	368.00	16.50	464.00	273.00	2.40	28.41	19469.93
TaiwanSem	306.50	23.50	366.00	227.00	3.09	24.33	264450.47
Thailand (THB)							
PTT Explor	34.25	-1.50	50.25	23.60	6.29	10.43	30031.71
United Arab Emirates (Dhs)							
Emirtestele♦	14.34	-0.76	17.80	11.04	5.63	13.65	33952.21
United Kingdom (p)							
AscBrFd	1984	39.00	2730	1554	2.29	17.86	19639.9
AstraZen	7970	849.00	8227.88	5626	2.88	61.00	126210.98
Aviva	247.80	-16.80	439.40	3.87	12.11	4.28	12435.07
Barclays	90.71	-6.87	192.99	73.04	7.72	8.44	19354.4
BP	303.55	-32.20	583.40	4.69	10.93	15.99	75649
BrAmTob	2943.5	-77.00	3507	34.85	6.76	10.96	68622.42
BSkyB	1727.5	0.50	1740	893.50	0.76	36.60	38843.72
BT	120.60	-5.20	231.15	102.90	12.77	5.53	14962.13
Compass	1332	-27.50	2150	20.62	2.89	19.06	27391.32
Diageo	2711	78.00	3633.5	2050.6	2.53	21.13	85337.67
GlaxoSmh	1660.6	116.40	1857	1328.19	4.82	18.19	102115.59
Glencore	141.28	-3.48	340.15	109.76	11.12	25.69	25482.31
HSBC	414.35	-14.50	687.70	387.65	9.28	18.30	103880.94
Imperial Brands	1564.5	-100.50	2553	1258.2	12.37	14.79	18657.58
LlydsBkg	30.45	-2.94	73.66	27.70	10.71	8.96	27440.73
Natl Grid	904.20	-4.00	1073.8	8.90	5.24	21.18	37949.93
Prudential	1042	-5.00	1532.78	682.80	4.74	10.24	33710.32
RBS	106.20	-16.30	265.00	2.23	5.18	4.10	15890
ReckittB	6248	80.00	8191.3	5130	2.73	19.47	55016.28
RELX	1839	47.50	2109	1382.86	2.35	23.91	44416.83
RioTinto	3816.5	-36.50	5039	2954	6.55	10.36	64005.25
RollsRoyce	334.50	-15.70	945.60	249.00	3.50	-2.66	7778.99
RylDShlA	1370.2	-139.40	2811.38	946.10	11.12	6.73	78763.05
Shire#	4690	0.00	4780	2944	0.58	11.63	56567.13
StandCh	406.50	-44.40	742.60	391.70	4.09	9.55	16757.21
Tesco	238.10	6.10	332.67	203.70	2.42	17.78	24376.64
Vodafone	108.88	-4.14	169.46	92.76	7.31	-16.47	36314.78
WPP	558.20	-14.80	1085.5	450.00	10.75	10.02	8837.16
United States of America ($)							
21stC Fox A	26.88	0.89	39.74	19.81	1.74	11.03	9266.73
3M	146.46	-1.32	219.75	114.04	3.71	19.87	84221.92
AbbottLb♦	96.01	9.97	97.75	61.61	1.26	49.38	169307.23
Abbvie♦	83.45	3.70	97.86	62.55	4.84	16.74	123228.35
Accenture	175.09	-2.83	216.39	137.15	1.25	24.18	115876.03
Adobe	344.11	25.41	386.75	255.13	-	59.33	165792.49
AEP	86.38	0.07	104.97	65.14	2.96	23.59	42743.65
Aetna	-	-	-	-	-	-	-
Aflac	36.48	-1.60	57.18	23.07	2.79	8.72	26357.22
AirProd♦	221.50	2.18	257.01	167.43	1.98	27.58	48880.28
Alexion	103.48	7.25	137.77	72.67	-	10.25	22982.91
Allergan	187.00	4.80	202.22	114.27	1.49	-12.37	61523.38
Allstate	104.92	4.58	125.92	64.13	1.80	7.92	33250.58
Alphabet	1279	72.43	1530.74	1008.87	-	27.56	383565.94
Altria	40.85	-0.06	56.76	30.95	7.58	-61.83	75914.28
Amazon	2375	332.24	2461	1626.03	-	109.35	1182408.31
AmerAir	11.57	-0.94	34.99	9.09	3.26	3.23	4929.5
AmerExpr	87.39	-7.43	138.13	67.00	1.77	11.59	70614.67
AmerIntGrp	24.50	-2.04	58.66	16.07	4.93	7.03	21398.84
AmerTower	254.06	-5.54	260.43	174.32	1.44	69.55	112663.38
Amgen	234.97	16.76	244.99	166.30	2.33	19.33	138106.56
Anadarko	72.77	-	76.23	40.40	1.50	-63.37	36563.54
Anthem	267.82	25.36	312.48	171.03	1.13	15.36	67527.4
Aon Cp	190.81	-1.24	238.19	143.93	0.85	31.74	44188.18
Apple	282.80	14.81	327.85	170.27	1.01	23.59	1237385.74
ArcherDan	37.19	-0.39	47.20	28.92	3.55	16.15	20722.56
AT&T	31.23	0.50	39.70	26.08	6.20	17.51	224328.39
AutomData	141.08	-1.44	182.32	103.11	2.19	26.41	60911.89
Avago Tech	265.88	11.58	331.58	155.67	3.85	42.59	106296.52
BakerHu	22.08	0.28	31.26	20.09	3.16	99.04	11412.93
BankAm	23.28	-1.58	35.72	17.95	2.68	8.97	203112.67
Baxter	92.95	6.06	95.00	69.10	0.84	31.64	47150.16
BB & T	54.24	-0.48	55.66	40.68	3.26	12.85	41564.3
BectonDick	261.40	13.95	286.72	197.75	1.12	100.34	70884.66
BerkshHat	284400	-6100.00	347400	239440	-	6.05	198830.58
Biogen	342.55	21.50	374.99	215.78	-	11.55	59625.63
BkNYMeln	37.39	0.25	51.60	26.40	2.98	8.78	33092.07
BlackRock	476.87	5.45	576.81	323.98	2.61	17.77	73562.59
Boeing	154.00	2.16	391.00	89.00	5.04	-145.68	86725.44
BrisMySq♦	60.60	1.69	68.34	42.48	2.62	31.94	136805.15
CapOne	54.63	-5.48	107.59	38.00	2.76	5.25	24988.93
CardinalHlth	51.23	0.80	60.69	39.05	3.54	-3.78	14948.07
Carnival	12.56	0.14	56.04	7.80	15.39	3.01	6629.39
Caterpillar	116.30	-8.73	150.55	87.50	3.07	11.47	63974.61
Celgene	108.24	-	110.70	58.59	-	12.71	77035.98
CharlesSch	35.79	-0.75	51.65	28.00	1.81	13.02	46071.6
Charter Comms	499.42	32.78	546.54	345.67	-	71.02	104866.2
Chevron Corp	87.17	2.86	127.00	51.60	5.15	59.97	162744.53
Chubb	118.79	-3.48	167.74	87.35	2.37	12.96	53617.99
Cigna	194.13	12.30	224.64	118.50	0.02	15.30	72200.73
Cisco♦	42.48	1.28	58.26	32.40	3.13	17.43	180152.59
Citigroup	45.45	-1.96	83.11	32.00	3.99	5.99	95363.54
CME Grp	191.62	1.46	225.36	131.80	1.48	34.35	68691.26
Coca-Cola	48.06	-0.94	60.13	36.27	3.14	24.60	206190.67
Cognizant	53.81	-0.47	73.50	40.01	1.40	17.33	29522.16
ColgtPlm	73.42	3.51	77.41	58.49	2.20	28.29	62776.29
Comcast♦	38.08	0.08	47.74	31.71	2.08	14.26	173019.92
ConocPhil	35.26	0.53	67.42	20.84	3.57	5.84	37970.08
Corning	20.72	-0.46	35.34	17.44	3.64	20.52	15801.49
Costco	317.92	17.91	325.26	233.05	0.77	39.01	140387.1
CrownCstl	167.05	2.91	168.75	114.18	2.73	83.15	69618
CSX	62.77	-1.23	80.73	46.81	1.44	15.95	48573.03
CVS	63.36	2.89	77.03	51.72	2.98	13.21	82631.56
Danaher♦	156.53	10.80	169.19	119.60	0.41	50.87	109085
Deere♦	138.46	-7.29	181.99	106.14	2.08	14.25	43423.83
Delphi	8.64	0.35	26.82	5.39	-	48.18	743.66
Delta	24.27	-0.12	63.44	19.10	5.85	3.52	15535.08
Devon Energy	9.22	-0.45	35.39	4.70	3.58	-46.52	3542.97
DiscFinServ	35.04	-4.17	92.98	23.25	4.75	3.91	10804.15
Disney	106.63	2.13	153.41	79.07	1.56	20.25	192513.92
DominRes	81.51	-0.08	90.89	57.79	4.25	53.31	68305.41
DowDupont	30.52	-0.56	48.38	30.06	6.73	-37.30	68559.76
DukeEner	90.10	-0.21	103.79	62.13	3.92	18.83	66135.98
Eaton	79.26	-2.18	105.78	56.42	3.57	13.90	32610.49
eBay	37.46	3.63	42.00	26.02	1.41	18.90	29817.21
Ecolab	178.75	-1.11	211.24	124.60	0.98	35.53	51509.75
Emerson	50.54	-1.24	78.38	37.75	3.94	13.43	30922.45
EOG Res♦	41.84	-2.98	107.89	27.00	2.29	9.41	24353.18
EquityResTP	69.79	0.37	89.55	49.62	3.07	28.44	25960.38
Exelon	38.44	-0.71	51.18	29.28	3.56	13.53	37437.86
ExpScripts	92.33	-	101.73	66.93	-	11.10	52061.19
ExxonMb	43.22	0.09	83.49	30.11	7.94	12.38	182839.2
Facebook	179.24	4.05	224.20	137.10	-	29.53	431293
Fedex	124.85	2.56	199.32	88.69	2.01	369.01	32617.03
FordMtr	5.12	-0.25	10.56	3.96	11.89	12.61	19997.88
Franklin	16.34	-0.47	35.80	14.91	6.07	6.90	8119.31
GenDyn	138.19	-2.82	193.76	100.55	2.73	12.22	40104.52
GenElectric	6.84	-0.30	13.26	5.90	0.55	-724.53	59790.61
GenMills♦	60.67	3.27	60.92	46.59	3.12	18.03	36774.45
GenMotors	22.48	-1.58	41.90	14.33	6.86	3.61	32123.97
GileadSci	83.99	10.48	85.97	60.89	2.83	21.09	105744.68
GoldmSchs	183.49	-0.77	250.46	130.85	2.13	9.24	63097.39
Halliburton	7.58	-0.63	32.30	4.25	8.97	-6.23	6620
HCA Hold	115.66	7.60	151.97	58.38	1.31	12.17	39147.3
Hew-Pack	15.52	-0.45	23.93	12.54	3.99	7.76	22189.94
HiltonWwde	75.62	7.17	115.48	44.30	0.75	26.35	20980.6
HomeDep	209.42	7.89	247.36	140.63	2.36	21.54	224941.4
Honywell	138.32	-5.11	184.06	101.08	2.29	17.42	98566.8
HumanaInc♦	373.59	31.69	385.00	208.25	0.56	19.69	49360.15
IBM	120.12	-1.38	158.75	90.56	5.05	12.04	106715.57
IllinoisTool	158.58	-0.70	190.85	115.94	2.46	21.71	50351.92
Illumina	316.36	28.74	380.76	196.78	-	49.73	46504.92
Intcntl Exch	90.40	3.02	101.93	63.51	1.15	28.00	49642.04
Intel	60.36	3.22	69.29	42.86	1.97	13.58	258372.4
Intuit♦	265.36	13.26	306.89	187.68	0.71	45.27	69123.48
John&John	152.02	10.79	154.50	109.16	2.33	28.61	400778.27
JohnsonCn	29.54	-1.06	44.65	22.78	3.32	23.18	22569.96
JPMrgnCh	95.18	-7.58	141.10	76.91	3.37	9.41	289969.4
Kimb-Clark	141.94	10.45	149.23	110.66	2.74	24.10	48466.87
KinderM	14.97	-0.39	22.58	9.42	5.99	16.52	33861.06
Kraft Heinz	29.33	1.22	33.78	19.99	5.15	19.67	35834.13
Kroger	31.93	0.87	36.84	20.70	1.76	16.77	24838.09
L Brands	13.78	-1.15	28.02	8.00	10.52	10.89	3810.63
LasVegasSd	47.01	-0.85	74.29	33.30	6.18	14.23	35902.93
LibertyGbl	18.23	-0.36	28.62	15.24	-	-28.07	3309.99
Lilly (E)	157.29	11.56	157.67	101.36	1.55	33.60	150532.58
Lockheed	401.51	30.51	442.53	266.11	2.12	19.38	113110.58
Lowes	97.10	1.79	126.73	60.00	2.05	26.37	73305.51
Lyondell	52.19	-6.74	98.91	33.71	7.51	5.76	17411.52
Marathon Ptl	25.45	-0.18	69.65	15.26	7.86	6.79	16529.88
Marsh&M	98.54	1.93	119.88	74.34	1.67	30.62	49673.63
MasterCard	259.97	-9.43	347.25	199.99	0.48	34.69	258483.31
McDonald's	186.10	2.40	221.93	124.23	2.53	24.07	138368.16
McKesson	141.61	8.29	172.18	111.71	1.13	-42.94	25055.12
Medtronic	103.33	2.30	122.15	72.13	1.95	27.65	138479.37
Merck	83.46	0.97	92.64	65.25	2.67	22.98	211676.99
Metlife	33.06	-2.40	53.28	22.85	4.97	5.78	30277.28
Microsoft	178.60	13.46	190.70	119.01	1.00	32.96	1358440
Mnstr Bvrg	62.19	1.68	70.52	50.06	-	32.46	33389.57
MondelezInt	53.48	1.14	59.96	41.19	1.92	21.38	76633.79
Monsanto	127.95	-	127.97	114.19	1.64	23.62	56462.29
MorganStly	39.09	-1.99	57.57	27.20	3.14	7.98	61588.22
MylanNV	16.11	0.03	28.46	12.75	-	568.82	8315.61
Netflix	422.96	52.24	449.52	252.28	-	108.50	185597.66
NextEraE	246.26	0.98	283.35	174.80	1.92	33.62	120527.74
Nike	89.91	3.12	105.62	60.00	0.97	32.52	111489.97
NorfolkS	160.67	1.37	219.88	112.62	2.11	16.61	44573.93
Northrop	356.30	19.65	385.01	263.31	1.37	28.55	59606.57
NXP	90.17	0.20	139.59	58.41	1.31	112.39	25225.12
Occid Pet	13.63	-1.73	64.60	9.00	21.74	-12.03	12260.23
Oracle	54.62	1.44	60.50	39.71	1.61	18.17	172248.76
Pepsico	137.55	3.92	147.20	101.42	2.60	28.02	191131.86
Perrigo	51.87	1.42	63.86	40.01	1.49	51.36	7060.89
Pfizer	36.91	1.52	44.56	27.88	3.68	13.63	204763.36
Phillips66	59.53	-1.99	119.92	40.04	5.55	9.32	26160.21
PhilMorris	77.96	2.62	90.17	56.01	5.59	17.92	121391.95
PNCFin	101.50	-3.92	161.79	79.41	3.91	9.44	43515.77
PPG Inds	93.31	-3.86	134.36	69.77	2.00	18.94	22012.81
Praxair	164.50	-0.44	169.75	140.00	2.08	42.03	47306.22
Priceline	1905.64	20.64	2067.99	1612.41	-	17.15	92937.2
ProctGmbl	124.69	10.03	128.09	94.34	2.24	75.06	307916.08
Prudntl	56.60	-2.10	106.40	38.62	6.67	5.93	22416.09
PublStor	196.48	-12.11	266.76	155.37	3.84	28.55	34312.67
Qualcomm	76.17	4.59	96.17	58.00	3.07	22.93	87065.57
Raytheon	116.96	-	233.48	103.00	2.98	10.60	32566.46
Regen Pharm	568.79	55.83	572.50	271.37	-	32.64	61526.49
S&P Global	282.59	-0.96	312.94	186.06	0.76	34.81	68087.05
Salesforce	162.62	8.07	195.72	115.29	-	184.93	145544.9
Schlmbrg	15.28	-1.19	48.88	11.87	12.35	-2.21	21155.39
Sempra Energy	124.44	-6.09	161.87	88.00	2.94	21.51	36385.33
Shrwin-Will	516.75	24.60	599.95	325.43	0.83	32.61	47439.7
SimonProp	56.12	-12.05	180.06	42.25	13.96	8.73	17151.07
SouthCpr	30.26	-0.86	44.82	23.43	4.99	16.70	23392.76
Starbucks	77.10	3.22	99.72	50.02	1.82	26.78	90492.27
StateSt	58.49	-2.46	85.89	42.10	3.20	11.52	20600.21
Stryker♦	189.51	6.79	226.30	124.54	1.06	36.64	71033.69
Sychrony Fin	15.62	-2.00	38.18	12.15	5.20	2.98	9172.57
T-MobileUS	90.99	5.09	101.35	63.50	-	23.98	77972.32
Target	113.42	9.22	130.24	70.03	2.20	18.84	56819.1
TE Connect	67.44	-3.73	101.00	48.62	2.55	15.27	22504.93
Tesla Mtrs	753.89	180.89	968.99	176.99	-	-162.34	136711.61
TexasInstr	113.55	5.86	135.70	93.09	2.67	22.96	106052.93
TheTrvelers	105.07	-4.67	155.09	76.99	2.90	11.22	26569.81
ThrmoFshr	331.58	14.20	342.26	250.21	0.22	38.31	12088.73
TimeWrnr	98.77	-	103.89	85.88	1.54	15.09	77269.69
TJX Cos	49.73	0.92	64.95	32.72	1.65	20.26	59561.53
UnionPac	149.89	1.16	188.96	105.08	2.33	18.95	101708.45
UPS B	102.75	4.06	125.31	82.00	3.53	21.30	72162.16
USBancorp	35.06	-2.99	61.11	28.59	4.25	8.93	53335.42
UtdHlthcre	290.56	26.43	306.72	187.72	1.34	21.48	275617.48
UtdTech	86.01	-18.63	158.44	69.02	3.19	14.36	74498.84
ValeroEngy	51.76	1.66	101.99	31.00	6.86	9.24	21146.33
Verizon	58.46	1.02	62.22	48.84	3.93	13.32	241782.6
VertexPharm	270.46	23.85	272.67	163.68	-	32.27	70121.78
VF Cp	57.50	-1.71	100.25	45.07	3.17	18.40	22696.42
ViacomCBS	15.80	-0.76	53.71	10.10	4.66	3.16	8890.92
Visa Inc	169.54	-4.15	214.17	133.93	0.58	32.78	289239.38
Walgreen	44.50	0.52	64.50	39.41	3.90	11.28	39036.3
WalMartSto	132.12	10.32	132.97	98.85	1.54	27.40	374200.47
WellsFargo	28.38	-4.82	54.75	25.11	6.39	7.42	116057.12
Williams Cos	18.08	1.49	29.06	8.41	7.94	26.98	21933.27
Yum!Brnds	84.17	3.80	119.72	54.95	1.88	21.54	25326.75
Venezuela (VEF)							
Bco de Vnzla	5997	2577	5997	250.00	426.87	-	173.82
Bco Provncl	400000	80000	420000	18000	-	14.82	342.81
Mrcntl Srvcs	425000	129820	425000	32500	0.01	5.33	205.65

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	Prev	Day		Week		Month
	price	price	change	change %	change	change %	change %
Tesla Mtrs	753.89	745.21	8.68	1.16	180.89	31.6	74.93
Amazon	2375.00	2408.19	-33.19	-1.38	332.24	16.3	31.27
L&T	932.90	911.65	21.25	2.33	120.10	14.8	-3.70
GileadSci	83.99	76.54	7.45	9.73	10.48	14.3	12.60
Netflix	422.96	439.17	-16.21	-3.69	52.24	14.1	31.73
Softbank	4735.00	4430.00	305.00	6.88	552.00	13.2	29.05
AstraZen	7970.00	7818.00	152.00	1.94	849.00	11.9	-85.24
AbbottLb	96.01	96.00	0.01	0.01	9.97	11.6	20.62
Regen Pharm	568.79	539.93	28.86	5.35	55.83	10.9	15.68
eBay	37.46	37.22	0.24	0.63	3.63	10.7	12.62
HiltonWwde	75.62	70.15	5.47	7.80	7.17	10.5	16.64
Anthem	267.82	271.84	-4.02	-1.48	25.36	10.5	12.33
UtdHlthcre	290.56	298.43	-7.87	-2.64	26.43	10.0	18.79
Illumina	316.36	303.50	12.86	4.24	28.74	10.0	40.01
VertexPharm	270.46	264.76	5.70	2.15	23.85	9.7	28.21
ICICI Bk	375.55	342.00	33.55	9.81	32.85	9.6	-6.79
HumanaInc	373.59	377.31	-3.72	-0.99	31.69	9.3	37.00
Williams Cos	18.08	16.59	1.49	8.98	1.49	9.0	49.05
Target	113.42	109.30	4.12	3.77	9.22	8.8	9.43
ProctGmbl	124.69	121.50	3.19	2.63	10.03	8.7	5.46

Based on the FT Global 500 companies in local currency

INTEREST RATES: OFFICIAL

Apr 17	Rate	Current	Since	Last	Mnth Ago	Year Ago
US	Fed Funds	1.50-1.75	27-09-2018	1.00	1.75-2.00	1.25-1.50
US	Prime	3.25	27-09-2018	3.25	5.00	4.25
US	Discount	2.25	27-09-2018	0.75	2.50	1.75
Euro	Repo	0.00	16-03-2016	0.00	0.00	0.00
UK	Repo	0.10	02-08-2018	0.10	0.50	0.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00	0.00--0.10	0.00--0.10
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25	-1.25--0.25	-1.25--0.25

INTEREST RATES: MARKET

	Over	Change			One	Three	Six	One
Apr 17 (Libor: Apr 16)	night	Day	Week	Month	month	month	month	year
US$ Libor	0.06700	0.001	-0.005	-0.033	0.71825	1.13525	1.12500	0.98125
Euro Libor	-0.56743	0.000	0.000	0.004	-0.35957	-0.19257	-0.11943	-0.01486
£ Libor	0.05550	-0.004	-0.001	-0.001	0.25525	0.67150	0.73513	0.85488
Swiss Fr Libor				0.001	-0.72200	-0.57820	-0.52180	-0.42560
Yen Libor				0.023	-0.05950	-0.00917	0.02050	0.10933
Euro Euribor				-0.016	-0.43800	-0.22400	-0.18700	-0.09800
Sterling CDs				0.000	0.75000	0.83000	0.89500	
US$ CDs				0.000	2.45000	2.56000	2.65000	
Euro CDs				-	-	-	-	

	Short		7 Days		One		Three		Six		One	
Apr 17	term		notice		month		month		month		year	
Euro	-0.71	-0.41	-0.68	-0.38	-0.54	-0.24	-0.46	-0.16	-0.44	-0.14	-0.40	-0.10
Sterling			0.45	0.55	0.70	0.80	0.78	0.88	0.82	0.97	0.89	1.04
Swiss Franc	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Dollar	-	-	-	-	-	-	-	-	-	-	-	-
US Dollar	0.08	0.38	0.04	0.34	0.45	0.75	0.77	1.07	0.72	1.02	0.64	0.94
Japanese Yen	-0.15	0.15	-0.15	0.15	-0.55	0.35	-0.50	0.50	-0.30	0.70	-0.25	0.75

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

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change	Agricultural & Cattle Futures		Price*	Change
Crude Oil†	Apr	18.27	-1.31	Corn♦	May	323.00	4.00
Brent Crude Oil‡		28.38	0.10	Wheat♦	May	535.25	7.00
RBOB Gasoline†	Apr	0.72	0.02	Soybeans♦	May	832.00	-4.75
Heating Oil†		-	-	Soybeans Meal♦	May	287.60	-4.00
Natural Gas†	Apr	1.76	0.07	Cocoa (ICE Liffe)⊕	May	1879.00	70.00
Ethanol♦		-	-	Cocoa (ICE US)♥	May	2377.00	134.00
Uranium†	Apr	32.40	0.00	Coffee(Robusta)⊕	May	1156.00	-10.00
Carbon Emissions‡		-	-	Coffee (Arabica)♥	May	116.20	-2.15
Diesel†		-	-	White Sugar⊕		339.50	1.70
Base Metals (♠ LME 3 Months)				Sugar 11♥		10.40	0.22
Aluminium		1510.00	-3.00	Cotton♥	May	52.66	-0.20
Aluminium Alloy		1190.00	10.00	Orange Juice♥	May	105.80	-3.70
Copper		5212.50	96.00	Palm Oil♣		-	-
Lead		1677.50	-13.00	Live Cattle♣	Apr	94.88	-0.53
Nickel		12065.00	305.00	Feeder Cattle♣	Apr	119.60	1.40
Tin		15175.00	50.00	Lean Hogs♣	May	38.05	0.78
Zinc		1950.00	18.00			% Chg	% Chg
Precious Metals (PM London Fix)					Apr 16	Month	Year
Gold		1729.50	10.85				
Silver (US cents)		1550.00	-7.00	S&P GSCI Spt	270.57	-1.99	-
Platinum		790.00	12.00	DJ UBS Spot	62.09	-2.18	-
Palladium		2139.00	-13.00	TR/CC CRB TR	131.43	-4.97	-32.51
Bulk Commodities				M Lynch MLCX Ex. Rtn	231.14	-9.84	-33.05
Iron Ore		85.45	0.95	UBS Bberg CMCI TR	11.10	1.12	-26.52
GlobalCOAL RB Index		50.00	1.00	LEBA EUA Carbon	23.51	-4.62	5.43
Baltic Dry Index		751.00	25.00	LEBA CER Carbon	0.24	26.32	0.00
				LEBA UK Power	3376.00	81.02	23.98

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ⊕ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

FT 500: BOTTOM 20

	Close	Prev	Day		Week		Month
	price	price	change	change %	change	change %	change %
SimonProp	56.12	53.10	3.02	5.69	-12.05	-17.7	-4.06
WellsFargo	28.38	26.89	1.49	5.54	-4.82	-14.5	-4.42
RBS	106.20	103.75	2.45	2.36	-16.30	-13.3	-99.19
Renault	16.38	16.00	0.38	2.38	-2.16	-11.6	2.44
Lyondell	52.19	49.45	2.74	5.54	-6.74	-11.4	25.10
Sychrony Fin	15.62	14.17	1.45	10.23	-2.00	-11.4	-11.23
BBVA	2.66	2.62	0.04	1.52	-0.34	-11.3	-23.87
Occid Pet	13.63	12.20	1.43	11.72	-1.73	-11.3	18.69
DiscFinServ	35.04	31.69	3.35	10.57	-4.17	-10.6	-5.59
ING	4.84	4.60	0.24	5.13	-0.57	-10.6	3.84
BNP Parib	25.47	24.90	0.57	2.29	-2.94	-10.3	-12.77
Lukoil	4620.00	4561.50	58.50	1.28	-510.00	-9.9	10.83
Novatek	957.80	938.40	19.40	2.07	-104.80	-9.9	21.49
StandCh	406.50	397.00	9.50	2.39	-44.40	-9.8	-99.11
BP	303.55	291.95	11.60	3.97	-32.20	-9.6	-98.84
BcoSantdr	1.96	1.97	-0.01	-0.47	-0.21	-9.5	-26.89
EDF	7.25	7.20	0.05	0.75	-0.75	-9.4	-7.62
RylDShlA	1370.20	1298.20	72.00	5.55	-139.40	-9.2	-98.54
Bradesco	18.78	18.63	0.15	0.81	-1.90	-9.2	1.56
CapOne	54.63	50.01	4.62	9.24	-5.48	-9.1	1.32

Based on the FT Global 500 companies in local currency

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	205.03	0.31	1.72	-1.23	0.48	4.53
Corporates(£)	373.30	0.03	5.10	-0.81	6.31	5.64
Corporates($)	315.06	0.23	4.79	1.12	4.79	1.12
Corporates(€)	228.18	0.08	2.34	-3.99	0.53	-1.29
Eurozone Sov(€)	250.74	0.14	-0.44	-0.08	1.25	4.62
Gilts(£)	379.49	-0.07	1.82	8.91	4.64	15.30
Global Inflation-Lkd	278.94	-0.87	1.85	-0.22	3.29	4.88
Markit iBoxx £ Non-Gilts	367.06	0.01	3.69	0.19	4.54	6.03
Overall ($)	277.30	0.21	2.01	5.84	2.01	5.84
Overall(£)	371.97	-0.04	2.38	6.12	4.61	12.35
Overall(€)	241.91	0.10	0.25	-0.87	0.63	2.89
Treasuries ($)	265.69	0.23	0.69	9.70	0.69	9.70
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	492.64	10.42	-	-	17.33	17.26
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64
CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	485.85	-7.93	35.23	-	743.22	437.71
Europe 5Y	82.22	-2.43	3.10	-	131.25	74.88
Japan 5Y	75.84	-8.02	-13.51	-	188.33	74.99
Senior Financials 5Y	101.91	-2.72	7.97	-	150.83	92.61
Markit CDX						
Emerging Markets 5Y	350.76	8.28	49.88	-	421.25	293.13
Nth Amer High Yld 5Y	607.23	3.19	81.69	-	776.87	525.54
Nth Amer Inv Grade 5Y	88.24	0.75	6.29	-	150.81	81.95

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

BONDS: INDEX-LINKED

	Price	Yield		Month	Value		No of
	Apr 16	Apr 16	Prev	return	stock	Market	stocks
Can 4.25%' 21	106.00	0.526	0.500	0.47	5.18	84522.11	8
Fr 0.10%' 21	100.49	-0.461	-0.508	-0.05	7.57	234827.59	15
Swe 0.25%' 22	110.14	-1.019	-1.009	-0.14	31.92	187660.32	7
UK 1.875%' 22	111.78	-2.489	-2.549	0.31	15.74	751129.61	28
UK 2.5%' 24	360.01	-2.430	-2.491	0.26	6.82	751129.61	28
UK 2%' 35	296.33	-2.414	-2.445	1.23	9.08	751129.61	28
US 0.625%' 21	99.92	0.686	0.545	1.05	35.84	1516511.44	42
US 3.625%' 28	131.09	-0.227	-0.369	2.15	16.78	1516511.44	42

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

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	-	-	-	Italy	1.51	2.01	-
Austria	-0.27	-	-	Japan	-	-	-
Belgium	0.69	-	-	Netherlands	-0.47	-	-
Canada	0.61	1.11	-	Norway	0.46	-	-
Denmark	-	-	-	Portugal	0.62	-	-
Finland	-0.01	0.49	-	Spain	0.80	1.30	-
France	0.68	-	-	Switzerland	-0.47	0.03	-
Germany	-0.50	0.00	-	United Kingdom	-	-	-
Greece	2.44	-	-	United States	-	-	-

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

BONDS: HIGH YIELD & EMERGING MARKET

	Red		Ratings			Bid	Bid	Day's chge	Mth's chge	Spread vs
Apr 17	date	Coupon	S*	M*	F*	price	yield	yield	yield	US
High Yield US$										
HCA Inc.	06/25	7.69	BB-	Ba2	BB	110.00	5.44	-0.32	0.38	5.00
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-	109.39	6.58	-0.02	-0.25	6.36
Mexico	01/25	3.60	BBB+	A3	BBB	106.70	2.16	-0.02	-0.30	0.88
Colombia	01/26	4.50	BBB-	Baa2	BBB-	103.75	3.74	0.05	-0.86	3.30
Brazil	04/26	6.00	BB-	Ba2	BB-	112.35	3.67	0.02	0.00	3.23
Poland	04/26	3.25	A-	A2	A-	108.01	1.83	0.00	-0.04	1.39
Turkey	04/26	4.25	-	B1	BB-	81.25	8.29	0.19	1.15	7.85
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	BBB-	Ba1	BBB	167.39	3.28	-0.03	-0.20	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	02/22	1.88	BBB+	A3	BBB	99.22	2.31	0.22	1.39	2.09
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

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

VOLATILITY INDICES

	Apr 17	Day Chng	Prev	52 wk high	52 wk low
VIX	38.15	-1.96	40.11	85.42	11.42
VXD	41.65	-2.54	44.19	71.05	2.47
VXN	38.37	-1.99	40.36	84.67	13.58
VDAX	43.54	-2.23	45.77	93.30	-

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

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	-	-	-	-	-	-	-	-
	12/21	2.00	102.96	0.22	-0.01	-0.01	-0.32	-1.25
Austria	10/25	1.20	108.13	-0.27	0.00	-0.06	-0.05	-0.18
	02/47	1.50	128.59	0.38	0.00	-0.13	0.00	-0.78
Belgium	09/22	1.00	103.31	-0.38	0.00	0.01	0.15	-0.02
	06/47	1.60	122.50	0.69	0.00	-0.08	-0.04	-0.83
Canada	09/22	1.00	101.59	0.33	-0.01	-0.08	-0.17	-1.31
	06/30	1.25	106.33	0.61	-0.04	-0.15	-0.20	-
Denmark	-	-	-	-	-	-	-	-
	11/21	3.00	105.40	-0.42	-0.01	-0.05	0.40	0.15
Finland	09/22	1.63	105.03	-0.45	0.02	-0.02	0.11	-0.05
	09/29	0.50	104.84	-0.01	0.01	-0.08	-0.07	-
France	10/22	2.25	106.86	-0.46	0.01	0.02	0.07	-0.09
	05/25	0.50	104.00	-0.28	0.01	-0.02	-0.10	-0.21
	05/48	2.00	133.65	0.68	-0.01	-0.09	-0.04	-0.74
Germany	09/22	1.50	105.22	-0.68	0.01	-0.06	0.20	-0.15
	02/26	0.50	106.79	-0.64	0.00	-0.10	0.05	-0.40
	08/29	0.00	104.79	-0.50	0.00	-0.13	-0.03	-
	08/50	0.00	102.38	-0.08	0.00	-0.14	0.07	-
Greece	02/26	3.65	109.49	2.44	0.09	0.34	-0.80	-1.02
	02/26	3.65	109.49	2.44	0.09	0.34	-0.80	-1.02
Ireland	10/22	0.00	100.59	-0.24	0.00	0.05	0.13	0.06
	05/30	2.40	121.58	0.23	0.00	-0.06	-0.13	-0.45
Italy	08/22	0.90	99.77	1.00	-0.10	0.29	-0.37	-0.10
	02/25	0.35	95.30	1.37	-0.06	0.31	-0.29	-
	05/30	0.40	89.66	1.51	-0.06	0.27	-0.42	-
	03/48	3.45	117.26	2.58	-0.04	0.11	-0.12	-0.82
Japan	-	-	-	-	-	-	-	-
	09/22	0.10	100.67	-0.18	-0.01	-0.02	0.02	-0.02
	03/26	0.10	101.36	-0.13	-0.02	-0.01	0.01	0.01
	09/47	0.80	108.84	0.46	-0.01	0.01	0.11	-0.06
Netherlands	07/22	2.25	106.37	-0.57	0.01	-0.03	0.09	-0.09
	07/25	0.25	103.82	-0.47	0.00	-0.07	-0.02	-0.29
New Zealand	-	-	-	-	-	-	-	-
	05/21	6.00	105.74	0.61	-0.05	-0.12	-0.35	-1.30
Norway	05/21	3.75	103.76	0.30	0.00	-0.02	-0.14	-1.08
	02/26	1.50	105.99	0.46	0.04	-0.03	-0.25	-1.18
Portugal	10/22	2.20	104.98	0.19	0.03	0.13	0.15	0.35
	02/26	3.30	115.33	0.62	-0.01	0.05	-0.09	-0.03
Spain	10/22	0.45	100.73	0.16	-0.02	0.11	0.22	0.26
	10/29	0.60	98.19	0.80	-0.03	0.04	-0.02	-
Sweden	-	-	-	-	-	-	-	-
	06/22	3.50	108.21	-0.36	0.02	-0.01	0.11	-0.03
Switzerland	05/22	2.00	105.66	-0.67	-0.02	-0.06	0.10	0.04
	06/29	0.00	104.45	-0.47	-0.05	-0.14	-0.06	-0.22
United Kingdom	-	-	-	-	-	-	-	-
	07/22	0.50	101.00	0.06	0.02	0.01	-0.24	-0.76
	09/25	2.00	110.39	0.07	0.01	-0.01	-0.23	-0.90
	07/47	1.50	120.53	0.67	0.00	0.00	-0.28	-1.05
United States	-	-	-	-	-	-	-	-
	10/22	2.00	104.49	0.22	0.01	-0.02	-0.25	-2.18
	02/26	1.63	106.82	0.44	0.01	-0.07	-0.20	-2.07
	11/47	2.75	136.35	1.20	-0.06	-0.13	-0.13	-1.80

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

BONDS: GLOBAL INVESTMENT GRADE

	Red		Ratings			Bid	Bid	Day's chge	Mth's chge	Spread vs
Apr 17	date	Coupon	S*	M*	F*	price	yield	yield	yield	US
US$										
Morgan Stanley	01/28	4.00	BBB+	A3	A	102.80	3.58	-0.03	1.39	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	109.88	3.55	-0.52	-0.37	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A	121.86	3.60	0.07	-0.09	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	123.64	3.52	-0.03	0.06	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	121.27	3.86	-0.03	1.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.40	5.01	-0.03	2.63	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	107.89	0.03	0.00	-0.06	-
Yen										
Mexico	06/26	1.09	BBB+	A3	BBB	97.85	1.46	0.00	0.42	-
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

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

GILTS: UK CASH MARKET

		Red	Change in Yield				52 Week		Amnt
Apr 17	Price £	Yield	Day	Week	Month	Year	High	Low	£m
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Tr 2pc '20	100.49	0.09	80.00	-10.00	-30.77	-88.61	103.45	100.00	32.53
Tr 1.5pc '21	101.04	0.12	33.33	9.09	-25.00	-84.62	101.58	100.78	32.84
Tr 4pc '22	107.37	0.08	33.33	-27.27	-63.64	-89.87	109.62	107.11	38.39
Tr 5pc '25	123.49	0.17	13.33	-15.00	-67.92	-82.47	126.04	121.74	35.49
Tr 1.25pc '27	108.01	0.14	7.69	-33.33	-78.13	-87.61	108.63	101.04	23.73
Tr 4.25pc '32	145.28	0.42	0.00	-17.65	-55.79	-70.83	148.26	133.61	35.86
Tr 4.25pc '36	156.00	0.56	1.82	-12.50	-50.00	-65.00	160.46	139.21	30.11
Tr 4.5pc '42	180.34	0.67	0.00	-10.67	-48.06	-60.82	186.37	154.10	26.95
Tr 3.75pc '52	191.60	0.61	0.00	-12.86	-51.59	-63.69	198.36	152.75	23.87
Tr 4pc '60	224.17	0.53	0.00	-15.87	-54.31	-67.48	231.12	170.06	23.89

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

GILTS: UK FTSE ACTUARIES INDICES

Price Indices		Day's	Total	Return	Return	
Fixed Coupon	Apr 17	chg %	Return	1 month	1 year	Yield
1 Up to 5 Years	90.35	-0.05	2479.17	0.59	1.90	0.12
2 5 - 10 Years	187.89	-0.03	3793.26	1.93	6.99	0.16
3 10 - 15 Years	228.89	-0.02	4879.26	2.57	11.72	0.41
4 5 - 15 Years	197.21	-0.03	4058.53	2.17	8.28	0.28
5 Over 15 Years	413.46	-0.05	6705.17	7.62	25.85	0.60
7 All stocks	197.65	-0.04	4174.59	4.31	14.28	0.53

		Day's	Month	Year's	Total	Return	Return
Index Linked	Apr 17	chg %	chg %	chg %	Return	1 month	1 year
1 Up to 5 Years	303.89	-0.21	0.33	-1.09	2485.96	0.65	0.24
2 Over 5 years	804.37	-0.28	9.24	9.85	6066.04	9.24	10.30
3 5-15 years	507.30	-0.37	3.23	4.65	4020.74	3.23	5.51
4 Over 15 years	1054.26	-0.24	11.65	11.74	7748.17	11.65	12.05
5 All stocks	717.18	-0.27	8.07	8.55	5504.60	8.11	9.13

Yield Indices	Apr 17	Apr 16	Yr ago		Apr 17	Apr 16	Yr ago
5 Yrs	0.02	0.01	0.86	20 Yrs	0.70	0.70	1.72
10 Yrs	0.32	0.32	1.28	45 Yrs	0.48	0.48	1.62
15 Yrs	0.60	0.60	1.59				

	inflation 0%				inflation 5%			
Real yield	Apr 17	Dur yrs	Previous	Yr ago	Apr 17	Dur yrs	Previous	Yr ago
Up to 5 yrs	-2.21	3.47	-2.27	-2.17	-2.48	3.46	-2.54	-2.62
Over 5 yrs	-2.09	24.61	-2.11	-1.71	-2.11	24.65	-2.12	-1.75
5-15 yrs	-2.46	10.13	-2.49	-1.94	-2.53	10.13	-2.57	-2.06
Over 15 yrs	-2.05	29.70	-2.06	-1.69	-2.06	29.70	-2.06	-1.71
All stocks	-2.10	22.65	-2.11	-1.72	-2.11	22.71	-2.12	-1.76

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

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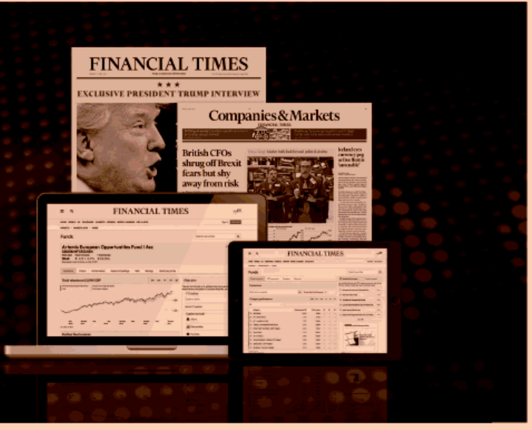

WORK & CAREERS

Covid-19 lays bare managers' efficiency obsession

Andrew Hill

On management

Ten years ago today, an explosion and fire ripped through Transocean's Deepwater Horizon drilling rig, working under contract for BP in the Gulf of Mexico. Eleven men lost their lives and more than 3m barrels of oil leaked into the ocean.

Fewer people will mark the anniversary than might otherwise have done. In the cruel calculus of catastrophes, 11 fatalities barely register against more than 130,000 worldwide from coronavirus.

A deadly virus and an oil well explosion — the first a natural phenomenon, the second described by an official US investigation as an overarching "failure of management" — are different. But there are suggestive parallels in how people prepared and responded to both.

For instance, the court that in 2014 found BP guilty of "gross negligence" ruled that several decisions leading to the disaster were "primarily driven by a desire to save time and money, rather than ensuring that the well was secure".

Multiply this observation 10,000-fold and you see why many countries were unready for this pandemic — and how they might prepare better for future disruptions.

In *Uncharted*, written before the first coronavirus outbreak, Margaret Heffernan distinguishes between "just-in-case" preparation of several vaccines, covering a number of possible epidemics, and "just-in-time" systems to produce a chosen vaccine at speed. The first approach requires budgeting for an excess of time and money. The second calls for rigorous efficiency.

Alas, pursuit of maximum efficiency — just-in-time manufacturing, supply chains and deployment of personnel — has become the norm across the private and increasingly the public sector. Take healthcare. "What we've seen is that the over-efficient management of the NHS meant that [for] just-in-case [scenarios], we were in deep trouble," Ms Heffernan told a recent discussion organised by the consultancy Jericho Chambers. "There was no margin for error."

The insight will be crucial for companies and governments as they emerge from this pandemic. Adequate preparedness demands wider margins and buffers. It also requires a tolerance for slack that goes against the grain of what, pre-Covid-19, was orthodox management thinking.

After the Japanese tsunami shocked tightly wound supply chains in 2011, I predicted that fear of inventory gluts and competition would push companies back towards the leanest possible sourcing of materials. Similarly, companies continue to define slack as a sign of inefficiency, waste, or fat, and a target for savings.

In this quest for greater efficiency, W Edwards Deming, the post-second world war guru of Japanese-style Total Quality Management, is often cited. But as management thinker Roger Martin writes in his forthcoming book *When More Is Not Better*, Deming taught that "there is always an optimal level of slack for any business system — and that level is not zero. Slack is a manifestation of friction — of the sort that in the right amounts contributes to greater resilience". The opposite of efficiency, Ms Heffernan adds, "is not inefficiency: it's robustness".

Slack also has benefits that go beyond improved safety or greater resilience. Zeynep Ton from MIT Sloan School of Management has worked with retailers that operate with more staff than needed to meet peak demand. The slack frees workers to perform better and to improve the stores for customers.

Hard-pressed managers — in retail, particularly — will snort that this is the worst time to have to justify any surplus cost or staff member. They are struggling just to match overheads to plummeting demand.

> **The pandemic will prompt new rules insisting on better margins for error and will embed more safety-first habits**

In the aftermath of the Deepwater Horizon crisis, BP also had to cut costs, in part to pay legal fees and clean-up bills that ultimately topped $60bn, and to respond to falling oil prices. It managed to balance its books, at the same time as avoiding any further catastrophic breach in safety. Since the financial crisis, banks, too, have learnt to live with the need to hold greater capital reserves, spurred by regulation.

It is natural for companies to encourage efficiency, the Deepwater Horizon investigation reported, but, without rigorous safety protocols, "there is simply too great a risk that financial pressures will systematically bias decision-making in favour of time- and cost-savings".

Coronavirus will prompt new rules insisting on better margins for error. It is bound to embed more safety-first habits. For a while, companies that can prove they are well-prepared ought to command a premium over those that seem prone to future shocks. At some point, though, cost-cutters will again redefine useful slack as ugly flab. My advice would be to steer business and investment away from those companies. Just in case.

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Business Book of the Year

A lockdown longlist to celebrate 16 years of the FT's book award

Andrew Hill reveals his personal favourites from the 230 titles that have been listed since the prize began in 2005

Top reads: the books from more than a decade of business and its evolution

Since 2005, I have helped select 230 books for the longlist of the Financial Times Business Book of the Year Award. To celebrate the launch of the 16th edition of the prize, again supported by McKinsey, I have selected my 16 personal favourites — a lockdown longlist, if you like.

I could have picked titles directly relevant to the current crisis: Walter Scheidel's *The Great Leveler*, for instance, about the economic impact of war, revolution and plague, or Nassim Nicholas Taleb's *The Black Swan*, certainly the longlist title most frequently cited since coronavirus flapped into view.

Instead, though, let me recommend our winners from 2009 and 2017: respectively, *Lords of Finance* by Liaquat Ahamed and Amy Goldstein's *Janesville*.

With perfect timing, Ahamed's book appeared in the chaotic aftermath of the financial crisis as central banks and finance ministries were fighting to contain the impact. He shone a historical light on that struggle with his beautifully told tale of how the celebrated central bankers of the 1920s failed to prevent the Great Depression, and may even have contributed to it. It has a sobering relevance for attempts to mitigate the coming global recession.

On a smaller scale, *Janesville* is equally pertinent. Goldstein meticulously reported how a Wisconsin town responded to the closure of a General Motors plant. The local crisis revealed not only the strength of community ties, but also the weaknesses in the system intended to reskill the unemployed workers. It is still the only business book that has made me cry, with Goldstein's description of members of the community pulling together to help those who had fallen on hard times.

The third title on my list that went on to win, in 2018, is John Carreyrou's *Bad Blood*, the stranger-than-fiction account of Theranos, the blood analysis start-up that went sour for Elizabeth Holmes, its founder, and many high-profile investors. Carreyrou, a Wall Street Journal reporter, weaves his own cat-and-mouse pursuit of the manipulative Ms Holmes into a best-seller that has already caught the attention of Hollywood film and documentary makers.

Typically, the book award longlist, announced in August, contains about 15 or 16 texts. Our judges then narrow those down to a final shortlist of six in the autumn, of which one takes the £30,000 prize. But my personal champions include plenty that were also-rans for our judges.

In 2011, Richard Rumelt's *Good Strategy/Bad Strategy* tore into the loose "vision statements" of self-aggrandising leaders, dissecting the hapless state of strategic planning and offering this mordant, still highly relevant, observation that "winging it is not a strategy".

The same year, in *Wilful Blindness*, Margaret Heffernan provided an enduring and unforgiving template for the analysis of how people allow scandals to happen.

Creativity Inc, by Ed Catmull, stood out for me in 2014 — and is the business book I still recommend most often. Catmull was president of Pixar, the animation studio, and this is one of the few titles written by a serving executive who admits to and analyses failure, rather than swamping readers with self-congratulation. Given the way Pixar has evolved since under Disney's ownership, I long for a sequel.

In 2016, I thought Lynda Gratton and Andrew Scott might take the prize with *The 100-Year Life* (the judges plumped instead for Sebastian Mallaby's fine biography of Alan Greenspan, *The Man Who Knew*). They are still among the few to have analysed the implications of improving longevity for careers, government policy and corporate behaviour. It is as accessible and useful as it is original and thought-provoking.

It may be hard for publishers to turn round durable analyses of the coronavirus crisis in time for the mid-November cut-off for this year's prize, but Andrew Ross Sorkin's extraordinary wide-ranging work of reportage *Too Big to Fail* remains an example of what is possible on a tight deadline. It was published in 2009, only months after some of the detailed financial crisis drama it describes, and shortlisted in 2010.

From the same year comes a rare fiction nominee. Adam Haslett's *Union Atlantic* presents a sharp attack on capitalism and capitalists on the eve of the financial crisis. I would still be more than happy to see a novel win through to the final stages of the contest, but none has to date.

> 'Goldstein's *Janesville* is still the only business book that has made me cry'

For a longer view, I love *The Match King*, a finalist in 2009, in which Frank Partnoy retold the little known story of Ivar Krueger, who wooed 1920s Wall Street into backing his empire before it collapsed into scandal and personal tragedy.

Alice Schroeder's magisterial, exhaustive biography of Warren Buffett, *The Snowball*, from 2008, repays rereading in turbulent times. So, for quite different reasons, does Oliver Shah's rambunctious 2018 portrait of the rise and fall of British retailer Philip Green in *Damaged Goods*, where no holds are barred (on the part of the writer or his foul-mouthed subject).

Equal, Carrie Gracie's angry, highly personal, but hugely instructive 2019 account of her fight for equal pay from the BBC also wins a place in my longlist hall of fame.

That leaves management books and economics titles, the former oddly underweight in our longlists over the years, the latter probably over-favoured. *The Org* is Ray Fisman and Tim Sullivan's rare and unlikely 2013 love letter to modern organisations which — most of the time — bring order to dysfunction. *Give and Take*, from the same year, destroys the myth that me-first "takers" always win, based on fascinating research by author Adam Grant (and others) into the value of being a generous "giver".

Finally, while the inaugural 2005 prize was dominated and duly won by Thomas Friedman's sprawling paean to globalisation *The World is Flat*, I preferred Pietra Rivoli's clever exploration of the phenomenon from the bottom up, *The Travels of a T-Shirt in the Global Economy*. She takes the reader on the journey of a single garment, from cotton fields to recycling bin, to illustrate the economic, ethical and personal complexities of the global supply chain that Covid-19 has now brought grinding to a halt.

Until the business world starts turning again: happy reading.

For more about the FT & McKinsey Business Book of the Year Award, visit ft.com/bookaward. *You will find a full list of all 230 longlisted titles at* ft.com/sites/business-book-award/

Judge's choice

Lionel Barber's favourites

My two picks are both from 2012: *Steve Jobs* by Walter Isaacson and *Why Nations Fail* by Daron Acemoglu and James Robinson, *writes Lionel Barber*.

Two great books, both my favourite runners up in 2012; one filet mignon, the other high class broccoli. Isaacson's biography of Steve Jobs is a wonderful warts and all read, capturing the character of one of the 20th century's greatest innovators. Jobs' career is a reminder that there is "good failure". After his ignominious departure from Apple Computer, the business he co-founded, he came back even stronger and turned Apple into a powerhouse of the digital age. My vegetable dish is part history, part socio-economics on why nations fail. It has plenty of sweep and many insights relevant for the corona era as liberal democratic societies grapple with this deadly pandemic. Every time you feel too depressed, go back to *Steve Jobs* to understand how to triumph in adversity.

Lionel Barber, former FT editor , chaired the book award judges from 2005-2019

Dear Jonathan

YOUR QUESTION FOR OUR EXPERT — AND READERS' ADVICE

What are good — less expensive — alternatives to an MBA?

This week's problem

I work within the technology function of a financial services firm and I am beginning to be considered for roles at the next level. I want to develop new skills and stand out, but I am not sure I can afford an MBA, or justify the cost and time out of work. Are there any alternatives (academic or otherwise) that will help me progress? **Male 30s**

Jonathan's answer

It is great that you are being considered for promotion and sensible to want to improve your chances by developing new skills. You ask whether an MBA is the only answer to the question: What skills or qualifications do people at the next level have?

Start by identifying those people, note the traits and skills they have that makes them successful — though remember that some of your observations will be relevant only to your current organisation and may not be transferable. Which of these technical and employability skills do you think you are missing, and would like to acquire?

Having specified the gap between what you have now and what you think you will need, analyse how you could develop the skills. Talk to people at the next level to understand where they learnt their skills and what they actually look for in promotion candidates. If possible, cast your net beyond your current employer to ensure you understand which transferable skills are widely valued.

Looking at your question from the other end of the telescope, an MBA could open many more choices for you than one promotion in your current organisation. Studying for an MBA can increase self-confidence, develop your analytical thinking, enrol you in a global and stimulating network, and improve your time-management. All of these could put you into entirely new roles in strategy and management; as a result, MBA graduates report salary increases of 60 per cent to 200 per cent. If you value those attributes (and the salary increase), then consider the options for achieving them.

In the UK, the tuition fees for a full-time MBA can cost anything from £30,000, to £90,000. Other cheaper options, that also address your concern about taking 12-21 months out of work, include an executive MBA, an online MBA, and other more specific courses and qualifications such as a CFA or Mooc courses in particular subjects.

While you seem content with your role and the industry in which you work, perhaps now is the time to ask an even bigger question, especially given the likely changes in the global economy post-pandemic. If you are interested in developing new skills, and are prepared to take some time and spend some money to do so, what would you really like to do, that plays to your strengths, that someone will pay you for, and that you would feel is truly worthwhile?

Readers' advice

Cheaper alternative is not to do one. You want to be a Master of Business? Start your own business. **Malthus**

Would really recommend Some of the part time 10-12 week online courses run by the major business schools. The typical cost is say USD 1-2k, and you get great content as well as the opportunity to work with other students on course assignments via MS Teams or Zoom. It went down well in recent job interviews to land a new role. **North London Investor**

Given the current situation I'm not sure any MBA is going to make a difference to recruitment in a lot of big companies: they will be looking hard at their bottom lines and the actual payback on their investment in MBA's is more doubtful than ever. **Manticore**

Next problem

I was recently promoted. But another colleague with fewer responsibilities and who is generally seen as an underperformer, was also promoted with me. Their promotion does not affect my path, yet this makes me feel like my employer is taking me for granted. Is it right to feel damaged by this, or am I overreacting? **Male 20s**

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

Pandemic puts mental health on everyone's agenda

Staff and employers offer their strategies to stay well – and working – while confined to their homes. By *Emma Jacobs*

Rachel Suff, public policy adviser at the CIPD, says the anxiety people are suffering under coronavirus is 'complex and nuanced'

The coronavirus pandemic has sparked a mass retreat of white-collar workers from the office to home. While some have found it a relief to give up the daily commute, others find it stressful, feeling remote from the office at a time when companies are making cuts and furloughing workers.

Sleep problems, difficulty controlling moods, and dysphoria are common problems, says Richard Chaifetz, chief executive of ComPsych which provides employee assistance programmes to companies around the world. "Even someone who is relatively healthy mental health wise is going to feel the effects of an abrupt change of their lifestyle: not being able to go out [and the fear of] the unknown, fear of losing their job or having lost their job."

In the UK, Bupa, the private healthcare provider, reports that its workplace psychologists are fully booked for virtual consultations and its health and wellbeing advice line has received 300 per cent more calls since the coronavirus crisis unfolded.

ComPsych says calls spiked in Asia when the pandemic took hold, while in the US there was a 20 per cent increase in requests to discuss mental health issues. Mr Chaifetz says: "Obviously people are feeling the effects economically, people are losing their jobs, spouses are losing their jobs and [they are] concerned about the future."

Employers have instigated virtual meetups, such as online happy hours, talent competitions and quizzes to combat the isolation of white-collar workers under lockdown. Goldman Sachs offers cooking classes via Zoom, virtual prayer sessions and virtual story time for children. Linklaters, the law firm, launched virtual choir workshops.

The firm has also virtualised some of its existing mental health resources such as on-site psychologists in Hong Kong, Singapore and the UK. It also has a site with resources, including webinars on the impact of working in isolation, plus one with a psychiatrist and doctor looking at the physical and psychological impact of Covid-19.

Jonathan Moult, a lawyer turned counselling psychologist whose private clients are predominantly City workers, says that for many employers the "inescapable reality [is] that sometimes the demands of jobs are so considerable that they don't match wellbeing [goals]".

"Prior to coronavirus, mental health was seen as someone else's responsibility, part of diversity and inclusion", he adds. "But now it applies across the board. Maybe [a small percentage of us] will get coronavirus but 100 per cent of us are psychologically affected by it."

Dealing with remote workers' concerns is hard. Line managers are having to adapt at speed, says Poppy Jaman, chief executive of City Mental Health Alliance. They are struggling "to recognise stress when not seeing people face to face". Key, she says, is being attuned to behaviour changing and asking people how they are, including through one-to-one chats.

Rachel Suff, public policy adviser at the Chartered Institute of Personnel and Development, says "anxiety can be quite complex and nuanced". With so much uncertainty, the fear of losing their job, says Ms Suff, can "alter people's behaviour". Moreover, if they feel their job might be cut or pay reduced they will feel unable "to raise their hand and admit to struggling".

Employees' home lives vary considerably. "The issues differ significantly," says Trent Henry, EY's global vice-chair for talent. Even if employees are able to work safely from home, their spouse might be facing unemployment or be a key worker; they might have to care for vulnerable relatives. "The mental health challenge is very hard," Mr Henry says. "Some of our employees live by themselves. That is different to someone with three generations under the same roof. Some people are putting in too many hours and over the long-term that's not sustainable." Others are "not feeling busy enough" and are worried about the future of their job.

Isolation has prompted a rise in domestic violence cases. For this reason, Anna Purchas, head of people at KPMG UK, has distributed guidance on domestic abuse to managers. "The main advice is to ask open questions. Open the conversation and signpost help."

For furloughed staff, Richard Chaifetz says, the situation creates a lot of anxiety. "They don't know what they're coming back to — there's a lot of 'what-ifs' [with regard to] the status of the business."

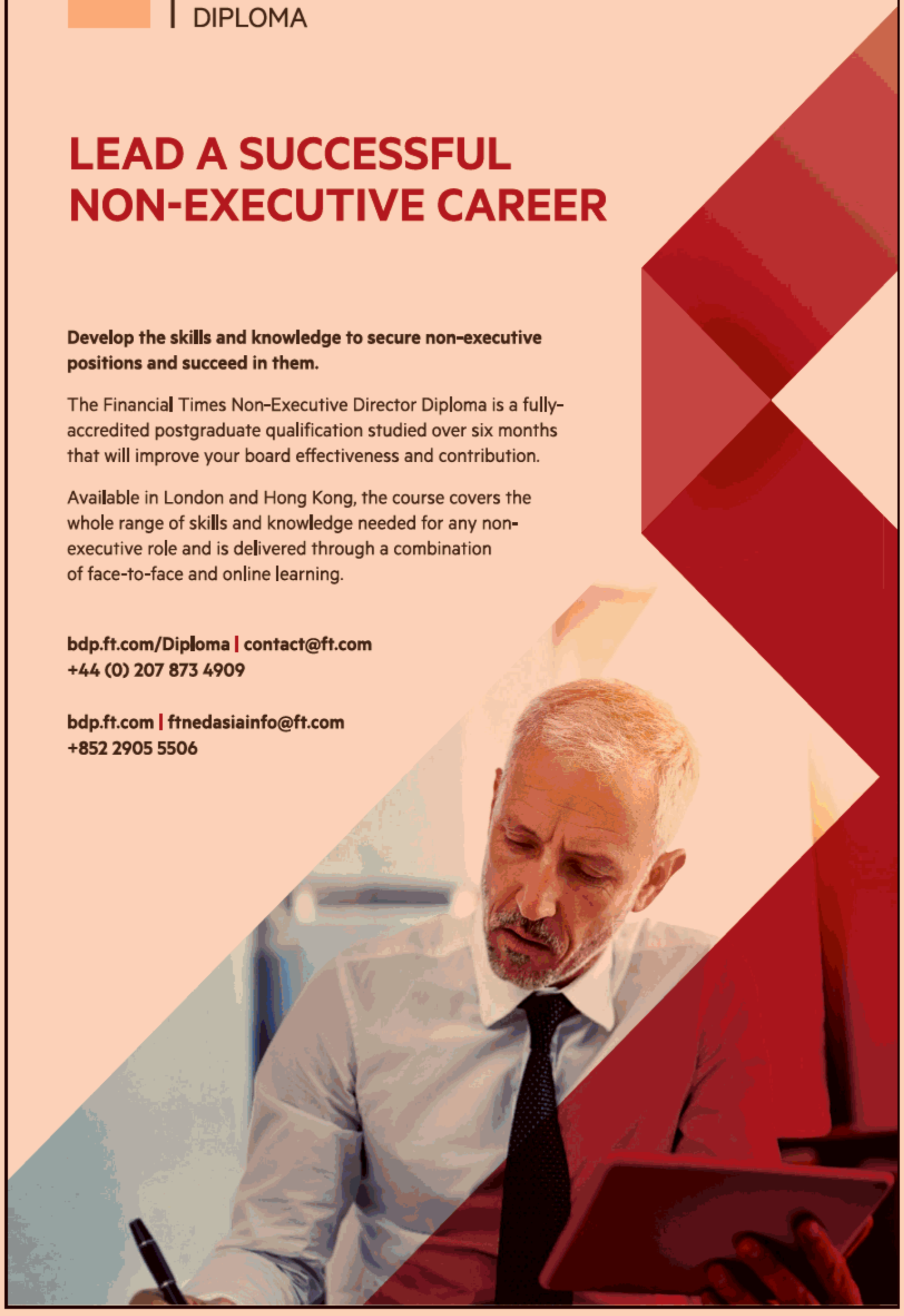
In the chaos of daily life we don't have an opportunity to think about our purpose

Research has found that working just eight hours a week can preserve people's mental health as much as full-time work. "There's a massive difference in terms of mental health between not working and working," says Brendan Burchell, reader at the department of sociology at the University of Cambridge and one of the authors of the report. He is concerned that furloughed workers will suffer mental health problems and proposes government furlough schemes could allow people to do some work, perhaps for the public sector or redistribute tasks within companies. "Work imposes a structure to people's life, so you have something to do so not ruminating all the time."

Anthony Wheeler, professor of management at West Chester University, says that "typically, with a furlough, employees will experience morale problems that will fuse with stress and burnout". It can also be divisive. "If some employees are called to work while others get furloughed, companies should have articulated policies around why they make the decisions they make relative to who works and who does not."

Generally, if people believe that the processes are applied fairly, they might not like the outcome but will feel that the outcome was fair, Prof Wheeler adds. "People can handle that. What they can't handle is when the processes lack fairness and transparency. In those circumstances, companies will experience a host of negative outcomes related to its employees — poor performance, more turnover, counterproductive work behaviours."

For some, however, working from home is a chance to spend time with family or pause to reflect. "Often in the chaos of daily life we don't have an opportunity to think about our purpose," Mr Moult says. The pandemic has exposed the fact that the best-paid are not essential, triggering some soul-searching among financiers and lawyers. "There's a recalibration," he adds. "We have had a society that has privileged moneymaking, agency and self-determination." Now public service and social connections are prioritised.



An online reckoning for museums and galleries

JiaJia Fei is the first consultant catering purely to the digital needs of the art world. Will others follow? She talks to Josie Thaddeus-Johns

Jiajia Fei, photographed remotely by Nikola Tamindzic in New York. Above right: 'Painting with History, the Red Sea' (2020) by Korakrit Arunanondchai, from David Zwirner Online Platform — Carlos / Ishikawa, London

It's hard to remember, but there was once a time when museums weren't convinced of the utility of online tools. It wasn't until January 2016 that the Jewish Museum in New York decided that it needed a digital department. Its first hire was JiaJia Fei, who built the team from the ground up as its new director. She came from the digital marketing department at the Guggenheim, already something of a celebrity in the art world, with tens of thousands of followers on social media.

In her four years at the Jewish Museum, she made impressive progress. The museum's Instagram saw a 1,000 per cent increase in followers — up to 73,000, with another 175,000 on Twitter. Much of her work involved streamlining the museum's multiple accounts into a single cohesive brand: making it as welcoming for digital visitors as it hopes to be in person.

At the same time, museums worldwide have realised that digital tools are vital for drawing audiences. Today, as physical spaces are closed to prevent the spread of coronavirus, these online spaces are even more vital. They have become the sole channel at the museums' disposal.

"It was always my intention that the Jewish Museum would be my first client," says Fei, who announced earlier this year that she is setting up as the first consultant catering solely for the digital needs of the art world. In an immaculate, shiny white crimped shirt, Fei is immediately recognisable by her trademark black bowl haircut that her Instagram fans follow through art fairs and museum tours.

"I've joked that all my followers get an honorary BA in art history," she laughs. "Some people think that's all I do, but most of my job isn't documented — it's mostly spreadsheets and data."

Her timing is impeccable, with interest in digital now soaring, even for galleries, where uptake has been slower. As businesses, often with smaller budgets, galleries have been slow to get on board, unconvinced of the need for digital investment and sticking to the in-person sales model that has always worked in the past. Almost all major galleries have social media accounts and some have created online viewing rooms, but the digital-first attitude is not as omnipresent as it is in other cultural sectors, such as film or music.

"The for-profit art world didn't immediately monetise the web," Fei explains, in a glass-doored meeting room in her Soho House-run office in DUMBO, just before New York started shuttering its public spaces. After all, it's fundamentally working on the same model that has been used since before the internet existed. An air of secrecy still pervades art world sales, where prices are usually not listed publicly, and must be sought out from sales staff. In-person connections are vital, and these have not been replicated online, where sales could be made via an anonymised email address or Instagram handle.

Today, new buyers expect the transparency that other ecommerce sites see as standard. Artsy, for example, an online marketplace with around 700,000 works for sale, says that galleries can expect at least a fourfold increase in sales when the price of the work is listed upfront. But currently, there isn't a clear road map for galleries (especially smaller ones with budgets to match) to capitalise on mass engagement while retaining the shine of exclusivity that justifies the prices.

"By design, the art world is created to be exclusive. Even the language is completely inaccessible," Fei says. "Communicating to a wide audience is something I think a lot of people in the art world struggle with." Fei's answer has been to change the way art is communicated. In her own social media and through her role at the Jewish Museum (where she is continuing as a consultant, part-time), Fei has focused on turning conceptually dense art exhibitions into content that engages all kinds of users. She calls her job "a kind of translation", making the intimidating idioms of the art world appealing to those outside the bubble through social media engagement, videos and online content.

Fei emphasises the impact that less visible tech could have for the art world in the long term, using the example of Spotify's impact in the music market: "That's a code-based solution, which gives the user greater convenience."

> 'Art is a social experience. Is this being addressed with online viewing rooms?'

She also cites Apple's recent collaboration with the New Museum, which placed AR work from artists such as Pipilotti Rist and Nick Cave in public space around New York and other major cities. "Imagine what would happen if artists had those tools to work from," she says.

Relationship management tools, which allow galleries to keep track of their customers' interactions, as well as using algorithms to aid recommendations, are two areas of future development she sees as fruitful. She does, however, concede that both rely on industry-wide changes that are out of reach for smaller galleries: it will come down to a big player to make tech available for all, as Artsy has been working on doing.

One popular approach for galleries, both before and during the current crisis, is online viewing rooms: mini-websites, often with a slideshow of video or image content, that mimic the format of an exhibition. But to Fei, online viewing rooms alone aren't enough. "You still have to drive people there, and create a context. Art is a social experience, and we go to museums and galleries to have experiences. Is this being addressed with online viewing rooms?"

Fei is more concerned with getting audiences involved than the impact on sales (after all, she has spent a decade in museums, where sales don't come into the picture). But there are signs that online efforts make a difference to galleries' bottom line. Elena Soboleva, director of online sales for mega-gallery David Zwirner, says the gallery sees the goal of its online space as not just sales, but also adding context, exhibiting artists' work to the broadest possible audience. The response to this digital-heavy strategy? Forty-seven per cent of inquiries online are from new collectors, and the 15 most valuable works sold have been from locations where the gallery doesn't have a physical gallery space, indicating a broad spread beyond the usual circle of collectors.

Since the closure of art's physical spaces, digital strategies for galleries are suddenly in overdrive. "It's a time of reckoning," Fei says. As the art world learns to deal with the effects of reduced footfall, Fei notes the opportunity that has been thrust upon galleries that have been slow to act in this area: "I hope this will convince people to think about what they should have been doing all along." While gallery space in the right location is expensive, digital space costs next to nothing. In an environment where everything is up in the air, there is an opportunity for smart gallerists at every level to leverage social media, and online content, creating relationships with a large audience that will reach beyond their apparent status in the art world hierarchy.

An augmented reality artwork in New York by Nick Cave, part of Today at Apple [AR]T Walk

ARTS ONLINE

The top 10 classical concerts to stream this week
From Berlin to Melbourne, Hannah Nepilova picks the best performances to enjoy at home for free

ft.com/arts

Uncomfortable truths about lying

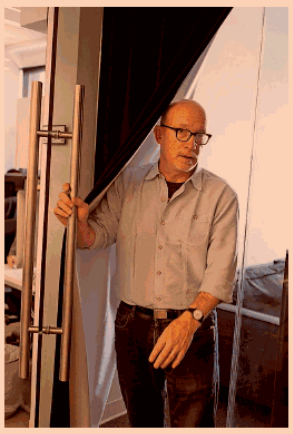
PODCASTS

Fiona Sturges

Are we living in a time of unprecedented dishonesty? With lies and disinformation permeating our political discourse and online lives, it might seem so — but 'twas ever thus, maintains *Lies We Tell*. An anthology series from Jigsaw Productions (available on the Luminary platform), this narrative podcast shows how our relationship with the truth is far from straightforward.

It is hosted by Ellen Horne, a radio producer and journalist best known for her work on the long-running series *Radiolab*, and Alex Gibney, the film-maker behind *Enron: The Smartest Guys in the Room*, *Citizen K* and the Oscar-winning *Taxi to the Dark Side*. In the opening episode, they discuss the epic lie told by the Pulitzer Prize-winning historian, Joseph Ellis. Celebrated for his presidential biographies, and for the debunking of myths surrounding the American Revolution, Ellis was revealed by the Boston Globe in 2001 to have fabricated a few myths about himself, the most egregious being that he had fought in the Vietnam war. Ellis later came clean in an interview and, after a short period of penitence, was able to resume his career.

The podcast shares other tales of dishonesty, including that of Syed Arbab, a college student from Georgia who started a Ponzi scheme that targeted friends and fellow students, and promised risk-free investments and high returns. Here he expresses regret for what he did but maintains that his intentions were good, even though his actions — which included spending his ill-gotten gains on clothing and trips to Las Vegas — suggested otherwise. The question remains as to whether he is still massaging the truth to salvage his reputation or if he is simply deceiving himself.



Smart storytelling: Alex Gibney, co-host of 'Lies We Tell'

Elsewhere, *Lies We Tell* mixes journalistic investigation with smart storytelling as it tells of two undercover police officers to whom lying is not only a profession but a way of life; a screenwriter who gets drawn into an elaborate scam that preys on his ambition; and a man whose dedication to exposing long-distance running cheats leads to tragedy. The most recent episode is more complex still as it looks at how a new communication technique with a non-verbal autistic girl seemed to uncover a story of familial abuse. This story is not for the faint-hearted.

While the tales of other people's misdeeds are undoubtedly compelling, the power of this enormously thoughtful series lies in its ability to make us question our own capacity to deceive. Horne and Gibney dig deep into the psychology of deception and the different ways people justify lies, or their exposure of them, and how they make peace with them once they are found out. Is it possible for a lie to come out of good intentions? Should we automatically think less of a person whose lies have been revealed? "We all have dark corners, we're complicated people," says Gibney. "There's a little bit of con artist in each of us."

The coronavirus pandemic is causing pain in many developing economies as commodity prices plunge. In Brazil's case, the situation is complicated by the president disagreeing with his government's advice.

By Jonathan Wheatley and Andres Schipani

Political isolation

Jair Bolsonaro leaves his presidential residence on April 13. As investors continue to withdraw funds from emerging markets, he has opposed the strategy backed by Brazilian ministers and governors for tackling coronavirus
Adriano Machado/Reuters

On the Thursday before Easter, Jair Bolsonaro stopped off at a bakery near the presidential palace in Brasília. Sipping a Coca-Cola and eating a *pão de queijo*, Brazil's president posed for photos with his arm around employees and supporters.

The following day the former army captain visited a pharmacy in the city. "No one can hinder my right to come and go," he told a tightly-packed throng of journalists.

Mr Bolsonaro, a far-right populist who surged from semi-obscurity to power in 2018, was making a show of defying the social distancing rules recommended by his own health officials to stop the spread of coronavirus.

On Easter Sunday, his popular health minister, Luiz Henrique Mandetta, a doctor who had spearheaded the measures to tackle Covid-19, pushed back on what many see as the anti-science approach of the president.

"When you see people going into bakeries, to supermarkets, this is clearly something that is wrong," said Mr Mandetta, whose air of competence has drawn comparisons with Anthony Fauci, the scientist advising US president Donald Trump. Speaking to TV Globo, he added that Brazilians "don't know whether to listen to the health minister or to the president".

On Thursday, Mr Mandetta was fired.

Across the developing world, the pandemic is causing a devastating economic crisis — even in countries where the disease has barely arrived yet. Economies are being battered by collapsing revenues from oil and tourism and sudden capital outflows.

The IMF, which has warned about the steepest recession since the 1930s, has already received requests for emergency support from more than 100 countries. While developed nations are throwing money at their slumping economies and struggling health systems, even many of the richest emerging markets lack the resources to act in the same manner.

> 'The lack of leadership, the lack of co-ordination, the lack of public policy have turned this into chaos'

For Brazil, the pandemic is a double blow. The economy was already in a parlous state, having yet to recover from a sharp recession in 2015-16. Its public finances were under heavy pressure even before the pandemic; mounting a fiscal response to the decline in the demand will create even greater strain.

On top of that, it has a dysfunctional federal government, with an ideologically-charged president openly opposing the strategy for fighting the disease proposed by many in his cabinet, senior lawmakers and the bulk of state governors, even some who were until recently his close allies.

Marcos Lisboa, an economist and head of the Insper business school in São Paulo, warns that the pandemic has hit the Brazilian economy when it was least prepared.

"This crisis arrived when Brazil was very fragile after several years of low growth, and with a government incapable of taking co-ordinated action in the face of the outbreak," he says. "The lack of leadership, the lack of co-ordination, the lack of public policy have turned this into chaos."

Asset flight

Brazil now has more than 36,000 cases of Covid-19, registering 188 deaths on Thursday alone. But the country felt the financial impact of coronavirus long before its first registered death on March 17. While the global financial crisis was a slow-burning event that took months to spill over into many asset classes, in countries such as Brazil Covid-19 took a matter of weeks.

The Brazilian real was already under pressure at the start of the year as a result of the weak pace of recovery and a steady drop in Brazilian interest rates. As global markets woke up to the threat of coronavirus in late January, a moderate sell-off in the real turned into a rout. The currency has lost more than a quarter of its dollar value this year.

Foreign investors began selling Brazilian stocks, then bonds, at an accelerating pace. Stocks on the São Paulo exchange lost almost half of their value between late February and late March, recently recovering some ground. Even large, well capitalised companies with cash buffers such as oil group Petrobras and mining company Vale saw their long-dated foreign currency bonds lose 30 to 40 cents on the dollar — at any other time, a signal of impending debt restructuring or default.

"It happened so quickly," says Roger Horn, emerging markets bond analyst at SMBC Nikko, a New York broker. "People weren't thinking about recovery value; this was priced to panic."

Across emerging markets, foreign investors dumped assets on a scale never seen before. According to the Institute of International Finance, equity and bond markets in 21 large emerging economies suffered cross-border outflows of $95bn in two and a half months from January 21, more than four times the amount that left in the same period after the start of the global financial crisis in September 2008.

This adds up to a sudden break in the supply of credit and a sharp tightening of financial conditions. Across corporate sectors, any certainty about the future dissolved. Capital expenditure slowed almost to a standstill.

In Brazil, the economy ministry last month cut its forecast of growth in gross domestic product this year from 2.1 per cent to zero. The IMF expects far worse: it estimates a contraction in Brazil's economy of 5.3 per cent, deeper than the 3.5 per cent decline in 2015 and far worse than the 0.1 per cent contraction in 2009 during the financial crisis.

> 'We've been saying that in other circumstances the debt won't be manageable. We are now in other circumstances'

Brazil and other big emerging economies came through that crisis relatively unscathed, thanks especially to stimulus measures in China, which sucked in commodity exports from much of the developing world.

This crisis is different. As the IIF said in a recent report it is synchronised across the world and set to be markedly worse than the 2008-09 crisis.

Pot and pan protests: many Brazilians have joined in the nightly *panelaço* against Bolsonaro's handling of the crisis

For emerging markets, the outlook is especially bleak. Latin America and the Caribbean, along with emerging Europe, will suffer the steepest contraction, according to the IMF, with output falling 5.2 per cent this year. Only emerging Asia will grow, by 1 per cent according to the fund, thanks to China and India.

EM meltdown

Even before the coronavirus crisis, the large emerging economies had been struggling to reproduce the levels of growth seen in the 2000s, when they outpaced advanced economies by a wide margin. The end of the commodities supercycle, declining returns on international trade and disruption of supply chains caused by the US-China trade war had already raised big questions about what, if anything, would drive their economies in the future.

"There are no longer those big turbo engines to boost EM growth, and this is really a challenging question," says Phoenix Kalen, emerging markets strategist at Société Générale in London.

Before coronavirus, she says, the expectation was that developed markets would stagnate over the medium to long term and emerging markets would eventually slow to a similar pace. Now "we can write this year off," she adds. "As we come out of the crisis we will still have to answer questions — will there be a new wave of infections, will consumer demand normalise to previous levels, how much will capacity use rebound?"

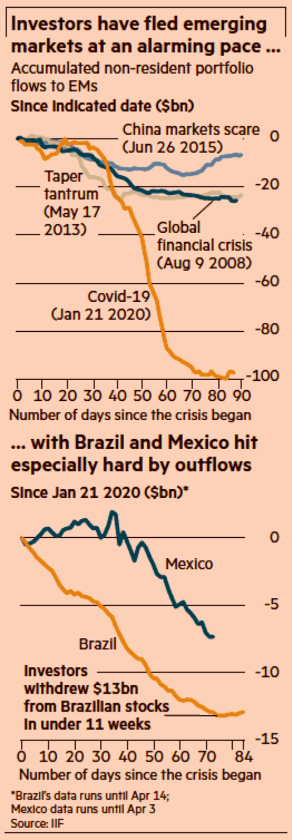
Emerging economies are also entering this new crisis against the backdrop of sharply higher levels of debt. Over the decade to the end of 2019, according to data collated by the IIF, the total debts of the 30 largest emerging markets rose from $28tn to $71tn, or from 168 per cent of GDP to 220 per cent.

Government debt also rose strongly in some economies, up from 65 per cent of GDP in Brazil to 89 per cent in the last decade, and doubling in South Africa from 32 per cent of GDP to 64 per cent.

As GDP contracts and the amount of debt rises in response to the coronavirus crisis, those ratios are likely to increase. The IIF says South Africa's government debt could soon rise to an unsustainable 95 per cent of GDP.

"What we've been saying consistently is that, yes, the debt is manageable now, with these interest rates at this level of risk appetite," says Sonja Gibbs, head of sustainable finance at the IIF. "But under other circumstances it won't be. We are now in other circumstances."

In Brazil, she notes, while the biggest companies may have cash buffers, the corporate sector as a whole does not. Overall, the ratio of short-term debt to cash among Brazilian companies is 66 per cent, according to the IIF's analysis, one of the highest levels among large emerging economies.



Investors have fled emerging markets at an alarming pace ...
Accumulated non-resident portfolio flows to EMs
Since indicated date ($bn)

... with Brazil and Mexico hit especially hard by outflows
Since Jan 21 2020 ($bn)*

*Brazil's data runs until Apr 14;
Mexico data runs until Apr 3
Source: IIF

Brazil, along with South Korea and Mexico, is among a handful of countries to have been offered swap lines of $60bn each from the US Federal Reserve — a repeat of its action in the crisis of 2008-09. This gives those countries a lifeline of dollar liquidity to meet financing needs. But other emerging economies have been left out.

Late on Friday, Brazil's economy ministry laid out an emergency support package of R$1.2tn ($223bn) — equal to the entire projected savings over the coming decade from last year's landmark pension reform. It includes support for the poor, for workers, local governments and businesses as well as the health sector. But it is not clear how far it will reach into the real economy. Only about a quarter is new money.

Erratic decisions

Into this rapidly deteriorating economic outlook, the erratic outbursts of Mr Bolsonaro have only added to the sense of drift. The public dispute between the president and Mr Mandetta had been escalating for weeks. While the former health minister warned that the health system was likely to come under intense pressure in May and June because of the pandemic, Mr Bolsonaro insisted recently that the virus "looks like it is starting to go away".

Adopting many of the positions articulated by Mr Trump in recent weeks, Mr Bolsonaro has pushed for a prompt reopening of the economy and promoted the use of malaria drugs chloroquine and hydroxychloroquine to treat people with the virus — advice that Mr Mandetta said was not yet backed by sufficient scientific evidence. The president has referred to Covid-19 as little more than a "sniffle".

He has clashed with several governors who have largely supported the advice to impose lockdowns. In late March, Ronaldo Caiado, the conservative governor of the central state of Goiás and a one-time ally, said the president's approach was "totally irresponsible".

On Thursday, Mr Bolsonaro slammed Rodrigo Maia, the powerful speaker of the lower house of Congress, after he had hailed Mr Mandetta as a "a true warrior" of public health following his sacking.

However, the new health minister, Nelson Teich, has supported social distancing, suggesting the president might not completely reverse policy for dealing with the pandemic.

While his counterparts including Alberto Fernández in Argentina and Martín Vizcarra in Peru have imposed strict lockdowns in their countries and saw their approval ratings rocket, Mr Bolsonaro's popularity has fallen. A poll released by Atlas on Thursday showed that 76 per cent of Brazilians opposed sacking Mr Mandetta, while 58 per cent disapproved of Mr Bolsonaro's handling of the country.

In recent weeks large numbers of Brazilians have taken part in a nightly *panelaço* — a time-honoured South American tradition of banging pots and pans — while chanting "Bolsonaro out!" outside their windows or on their balconies.

Some opposition politicians have even started to talk about an attempt to impeach the president — although most political analysts believe this would be unlikely in the midst of a crisis. Unlike Dilma Rousseff, his leftist predecessor whose ratings sunk before her impeachment, he still holds a power base of support, but critics warn about the impact of his performance during the crisis.

"In addition to the risks he poses to democracy and public health, Bolsonaro also brings the country to a standstill while we all wait for his erratic decisions," says Daniela Campello, a professor of politics at the Getúlio Vargas Foundation. "Will we survive?"

FINANCIAL TIMES
'Without fear and without favour'
MONDAY 20 APRIL 2020

How to secure the future of the eurozone

Macron is right that without solidarity the single currency could fail

The economic and human devastation inflicted on Europe by the coronavirus pandemic is so severe that the survival of the eurozone and the postwar project of European integration as a whole is in peril without greater solidarity among its member states. That was the stark warning issued by French president Emmanuel Macron in an interview with the Financial Times last week. He is right. Europe, as he put it, is facing a moment of truth.

Jobs are being lost and output crushed everywhere. But the pain will be uneven. Mediterranean countries with important tourist industries may suffer longer than manufacturing economies as foreign visitors stay away in their millions this year. They also entered this crisis saddled with the legacy of the last one: high unemployment, large public debt burdens and, in some cases, weak banking sectors.

Every day reveals the economic damage and the price governments will have to pay to try to cushion the blow. Italy and Spain are already worrying about the affordability of crisis-fighting measures, spending considerably less than France or Germany. The Italian and Spanish deficits are likely to balloon since release from economic lockdown will be slow and piecemeal at best. Debt to gross domestic product ratios will soar. Italy's will climb to 155 per cent next year, the IMF predicts. It could rocket beyond sustainable levels in the years afterwards if the economy flatlines and borrowing costs rise.

Such a prospect could persuade investors to dump Italian debt, pushing the country into a spiral from which it could be hard to escape. If Rome tightened its belt in a slump it would deepen the crisis and turn Italians fully against the euro and into the arms of the populists. The market sell-off would spread to other eurozone members. This is the apocalyptic scenario Mr Macron fears. It is closer to reality than some in northern Europe would care to admit.

For now, the pressure is contained thanks to the might of the ECB, whose asset purchases have suppressed borrowing costs — although Italy's have begun to rise again. But the ECB's €750 Pandemic Emergency Purchase Programme will be wound up later this year and regular bond-buying will be harder to sustain if a recovery gains traction in the north.

It would help if Rome tapped the European Stability Mechanism, the eurozone's rescue fund. True, its loans would add to Italy's debt pile. But they are cheap and they come with few strings attached. More importantly, they bring potentially unlimited bond-buying from the ECB should its other programmes have to be scaled back next year. But tapping the ESM has become a taboo. Matteo Salvini, leader of the Eurosceptic League, equates it with subjugation. The Five Star Movement, one of the governing parties, is against.

For these reasons European leaders will need to go much further to safeguard their cherished project when they meet for their video summit later this week. To relieve the pressure on the weakest members and give them the means to rebuild their economies, the eurozone needs to embrace the idea of mutual support.

Coronabonds are too emotive. But there are proposals for a time-limited recovery fund, with EU debt issued either on the back of member-state guarantees or the EU budget. Money would be paid out in grants but repaid according to the strength of a country's recovery. Many details need to be worked out. There would have to be conditions. But the scale of this crisis requires a demonstration of exceptional solidarity. Without it, political support for the euro will evaporate.

Covid-19 is bringing out protectionist instincts

'Piracy' in obtaining vital supplies may rebound on those responsible

As death rates from coronavirus rise, so do those frequent concomitants of calamity: protectionism and zero-sum struggles for advantage. Scrambling to obtain vital medical equipment from ventilators to face masks, several countries or regions have alleged shipments destined for them were mysteriously diverted elsewhere — mostly to the US. The White House has denied "piracy", insisting instead it is trying to clamp down on it. Some US state governors have accused foreign governments of similar skulduggery. Evidence is often murky. Ensuring life-saving equipment gets to where it is needed, however, could hardly be more important.

The backdrop is serious shortages driving up prices. Many suppliers insist they are not price-gouging but reflecting soaring costs — again from the spike in demand — for raw materials. But those trying to source goods talk of bidding wars against other buyers, both with manufacturers and a web of brokers and distributors. Some Chinese manufacturers have told the FT they decide who to ship to by seeing whose money arrives first. Some governments complain their procurement rules bar such prepayments for goods.

Protectionism can go to the highest levels. Washington rang alarm bells this month when it invoked a law dating from the Korean war — the Defense Production Act — to order 3M to produce more of its sought-after N95 respirators. President Donald Trump also demanded the company stop selling the masks to Canada and Latin American countries. Dismayed Canadian officials talked privately of betrayal.

The White House and 3M finally agreed on a compromise in which the company will import 166.5m masks to the US from China, Singapore and South Korea in the next three months, but can continue exporting from the US to Canada and Latin America.

In other cases where foreign buyers have pointed fingers at the US it is less clear whether the White House is directly to blame, or the frantic competition among US states which Mr Trump has left to fight it out for supplies. Two French regions and some impoverished states in north-east Brazil have claimed that shipments of equipment they ordered ended up instead in America. German officials accused the US of "confiscating" a consignment of respirators en route from China to the Berlin city police during a stopover in Bangkok. Andreas Geisel, Berlin's interior minister, called it "an act of modern piracy". 3M, said by German media to be the manufacturer, said it had no evidence of any seizure.

In truth, not just the US has veered into protectionism. The Global Trade Alert team at Switzerland's University of St Gallen says 75 countries have introduced some export curbs on medical supplies, equipment or medicines this year. They include most EU countries, India, China, Brazil and Russia.

The tussles over ventilators and masks could spread further, into drugs found to be useful in treating Covid-19, and testing equipment as countries start to emerge from lockdown. Urging countries to show restraint in ordering only what they strictly need, and suppliers to avoid profiteering, may seem a vain hope. But companies, distributors or public authorities acting irresponsibly deserve to be named and shamed.

Ultimately, governments seeking supplies should take a long-sighted view of their interests. Some appear to be doing so: the St Gallen unit says 79 countries have liberalised trade in medical supplies this year. The danger of a second wave of Covid-19 infection already looms large. Any countries that restrict or divert vital supplies now may find their behaviour rebounds on them in a few months' time.

Letters

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Attitudes to women working from home may change forever

The coronavirus-imposed work overhaul may well benefit working women in the long term. From my point of view, it has been interesting to witness an imposed and indiscriminate "working from home" arrangement. Usually thought to be preferred by working mothers, working from home has sometimes been stigmatised and labelled as the "mummy track": a path corporate women might desire to take after having children. Today, women and men, chief executives and personal assistants, husbands and wives, have all been forced to work from home and, more importantly, to "make it work".

Company executives and business leaders have hopefully experienced first-hand that excellent work can be achieved anywhere and that working from home does not equal work of lesser quality. On the contrary, productivity can be heightened by cutting commuting time and by avoiding unnecessary meetings.

Predictions estimate that the working structure post-Covid-19 will be forever changed. The greatest change, in fact, could be society's attitude towards working from home. With its effectiveness proven and the stigma gone, both men and women could be recognised as being able to do their jobs confidently and effectively, wherever their desk is situated.

The greatest benefit, however, could be for women. With men recognising the value of working from home, women could more freely choose flexible working arrangements without any stigma attached to it. They could do this while maintaining a full-time job and more importantly, without losing traction in their careers. Women could very well win the race, from home or the office.

Barbara Judge
London SW1, UK

A plea to exclude blame from the public inquiry

While I am not one of the great (though, occasionally, of the good, I hope) so my opinion carries little weight, I do want to say how much I agree with the need for a public inquiry into the response to the coronavirus outbreak in the UK (Letters, April 16). May I add one plea? That in its terms of reference, blame should be excluded. Those questioned must be able to admit that things might have been done otherwise with better outcomes.

But how could the judgment be made? It is so important to accept that the response to the crisis has been carried out with the best of intentions as the best way forward. To admit that other ways could have produced quicker or better results must be part of the record for those who have to cope with other crises of similar nature. Honesty without threat is vital.

Ben Hopkinson
Warkworth, Northumberland, UK

Truman's commitment had bipartisan support

Janan Ganesh draws illuminating parallels between Joe Biden and Harry Truman ("Biden is the last, best hope for globalists", April 16). But there is one element that raises questions for what comes after this November's election if the Democrat wins.

As he committed the US to internationalism, Truman enjoyed bipartisan support from the Republican majority elected in 1946 for his commitment to internationalism. Arthur Vandenberg, the Republican chairman of the Senate Committee on Foreign Relations, declared that Pearl Harbor had "ended isolationism for any realist", and leading members of his party threw their weight behind the Marshall Plan and other initiatives. Would Mr Biden enjoy similar support from the other side for a relaunch of globalism?

Jonathan Fenby
London WC1, UK

Attlee was Britain's own 'humble leader'

Janan Ganesh is entitled to hope that Joe Biden can "make the planet safe for globalism" (April 16). In the aftermath of crisis, even humble new leaders find opportunities to implement profound change. Harry Truman offers a fine example, but Britain has one of its own. Winston Churchill considered Clement Attlee "a modest man with much to be modest about". The NHS and Britain's independent nuclear deterrent stand as testimony to Attlee's wisdom.

Prof Tim Luckhurst
Principal, South College,
Durham University, UK

Lockdown has shown that excellent work can be achieved anywhere —Alamy

Italian banks are part of the solution to the crisis

Miles Johnson's Inside Business column "Salvini's anger at short sellers would be better aimed at banks" (April 16) depicts Italian banks as a potential threat to Italian savings, at the very moment when they are engaged in an extraordinary effort to provide relief to Italian companies, mid-caps, SMEs and households, under both statutory and voluntary schemes. Was it ill-timed?

In order to support criticism of the short selling ban, Mr Johnson compares the stock exchange performance of Italian banks to the performance of other industries. In doing so, he fails to take into consideration the regulatory pressure that has affected European banks in the last few years, allowing for an increased resilience although at the price of a lower return on equity for shareholders. Such prudential regulation is not in place for other industries, for which a public interest in their stability is not deemed to exist. Therefore, just comparing banks' stock price performance to the national all-sector index makes little sense in itself.

He then totally disregards the increased resilience I refer to. Since the beginning of the 2008 financial crisis, Italian banks have shown success in making the national sector safer and more solid. They have more capital and most importantly, they have better-quality capital. Restructuring and consolidation have also gone ahead. At year-end 2019, the Italian banks' gross NPL ratio drop to about 6.5 per cent (or 3.3 per cent if measured net of loan loss provisions) from its peak of more than 16 per cent (or 9.6 per cent in net terms) during the crisis. The substantial improvements of Italian banks have been widely recognised by European and national supervisory authorities.

Considering that the impact of Covid-19 will be hard everywhere in the world, it would have been fairer to say that Italian banks are facing the emergency with strong fundamentals and in the position of being part of the solution, not an additional threat.

Giovanni Sabatini
General Manager,
Italian Banking Association

Hard to justify testing of those with no symptoms

In your editorial "Trump should leave the virus response to experts" (April 16) you suggest that "a vast increase of testing for all Americans" would allow "a staggered return to work for those who have proof of their health status". Proof of what exactly? From all available information, 99 per cent of the people in most places have not been infected and thus have no immunity. In Northern California, for example, the number of confirmed cases is one-half of one-tenth of 1 per cent of the population. So you can't mean that only those who have tested positive may return to work.

At most, the test might identify and exclude a small number of asymptomatic carriers from the remaining 1 per cent. For the rest, it would only prove they are virus-free today. This may not be the best use of precious medical resources. No one (not South Korea, not Germany) has done testing on this scale. Rapid testing of individuals including workers still on the job who develop symptoms followed by social isolation and contact tracing of those who test positive is arguably imperative. But mass testing of asymptomatic individuals before they return to work is difficult to justify.

Robert Denham
Oakland, CA, US

What we choose to do next will affect the planet

French president Emmanuel Macron says that it is time to "think the unthinkable" ("FT Interview, April 17), and that we are in a state of "profound anthropological shock". However, the tragedy of this pandemic has demonstrated that we have a choice about how our system of capital and finance works. Profit is an empty purpose if you are left only with a dilapidated planet to spend it in.

UK citizens collectively hold greater wealth in their pension and investment assets than in their houses, and through those shares, bonds and other investments we have the power to make the change we need to protect ourselves and our society, and make our contribution globally against future crises, of which the next most pressing and urgent will be the climate crisis.

The coronavirus threatens to open up old divisions just as the world was moving towards consensus, but we have the power as individuals to reach out and put our money to work to build a more resilient and sustainable economy and society.

Bruce Davis
Joint Managing Director,
Abundance Investment,
London W10, UK
Visiting Research Fellow, Bauman
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It was 1943. What could the Raj have done?

Amartya Sen says: "During the war years, in contrast with the better sharing of food and healthcare by the British public, the terrible 1943 Bengal famine occurred in British India, killing nearly 3m, which the Raj did little to prevent." ("A better society can emerge from the pandemic", April 16.)

In 1943 Britain was fighting for its life; oxen, the main means of transport in India, consume the contents of a fodder cart in only a few days of travel.

In these circumstances, what does Professor Sen think the British government could have done?

Ian Maitland
London SW1, UK

Correction

- Libra's multi-coin currency will be available when the project launches, not at a later point as wrongly stated in an article on April 17.

OPINION ON FT.COM
David Oliver
The intensive care unit is not the best place for all Covid-19 patients
www.ft.com/opinion

An attempt to solve Africa's poverty riddle

Book review
David Pilling

Know The Beginning Well: An Inside Journey Through Five Decades of African Development
by KY Amoako
Africa World Press, $39.95

Early on in his book, the Ghanaian economist and career technocrat KY Amoako, asks: "So why is Africa still poor?" The question is triggered by his reflections on the 60th anniversary of Ghana's independence in 2017.

Kwame Nkrumah, the country's liberation hero and a childhood idol of the author, epitomised the optimism and pan-African idealism that fuelled the anti-colonial movement. But Nkrumah, who was ousted in a 1966 coup, was also the embodiment of Africa's shattered dreams. Though Ghana is among the most stable countries on the continent, many of its people still live in poverty.

If Amoako's book purports to solve this riddle, then, on balance, it fails. "The answer", as he says himself somewhat limply, "is not so clear cut." But the engaging book succeeds on many other levels. Above all it is a story of how institutions work — and how they fail. It is also the surprisingly sentimental journey of an African of relatively modest beginnings through the privileged corridors of the World Bank and then the UN, where Amoako became head of the Economic Commission for Africa.

When he joins the Bank in 1974, Amoako finds himself a "stranger in a strange land", in a "button-down culture" by no means immune to the racist and sexist attitudes of the time. He is mocked for his Ghanaian-accented English and denied jobs where it was deemed that the Bank's clients — sometimes African governments themselves — would not take kindly to receiving advice from an African. Partly thanks to his own efforts, attitudes begin to change. Later in his career, he appoints so many women to one department he is told to redress the balance.

The best description of the Bank comes not from Amoako, who sometimes pulls his punches, but from James Wolfensohn, president from 1995. Amoako quotes him as calling the Bank "woefully out of tune" but nonetheless "still the right instrument to play" in its self-appointed mission of tackling poverty, protecting the environment and fostering social justice. Many would contend that its record is blemished, to say the least.

In one important section, Amoako offers a mild defence of the infamous Berg report of 1981 — Accelerated Development in Sub-Saharan Africa — whose author, Elliot Berg, pushed a heavily free-market prescription. Berg recommended economic liberalisation instead of the statist vision that had worked in parts of Asia — and was favoured by many Africans.

His report provided the intellectual foundation for the "structural adjustment programmes" of the 1980s and early-1990s through which the Bank lent money on the basis of rigid — and often ruinous — polices characterised by austerity. Such policies, Amoako writes, "only seemed to reinforce the notion of an institution unmoored from the human side of economic development".

Still, he is right to criticise African leaders who, 30 years later, were still projecting their own failures on to the Bank. He defends the reasonable idea that lending should come with some strings attached, not least that money should not be stolen — a concept that the Bank refers to by the typically treacly euphemism of "good governance".

It is all a long way from Amoako's beginnings in Ghana, where he was raised by his father who took charge of his upbringing after divorcing his mother. Amoako first met his mother — briefly — when he was 12. The first time he slept under the same roof as her was as a 24-year-old heading off to Berkeley to write a PhD on Ghana's exchange rate regime. He found himself shocked by the poverty in which she was living. Years later, his US-educated daughters communicate with their Twi-speaking grandmother through an interpreter. That is a sign of the gulf between their lives, and perhaps a metaphor for the distance between institutions such as the Bank and the people they purport to serve.

The book's title comes from an African proverb: "If you know the beginning well, the end shall not trouble you". By knowing the history, Amoako contends, the continent's leaders and policymakers will be better able to chart a course towards "inclusive growth and prosperity".

For an account of the "beginning", this book is well worth reading. As a guide to how this will end for Africa, it is less satisfactory.

The writer is the FT's Africa editor

Opinion

Why China is losing the coronavirus narrative

ASIA

Jamil Anderlini

When Roger Roth received an email from the Chinese government asking him to sponsor a bill in the Wisconsin state legislature praising China's response to coronavirus, he thought it must be a hoax. The sender had even appended a pre-written resolution full of Communist party talking points and dubious claims for the Wisconsin senate president to put to a vote.

"I've never heard of a foreign government approaching a state legislature and asking them to pass a piece of legislation," Sen Roth said told me last week. "I thought this couldn't be real." Then he discovered it was indeed sent by China's consul-general in Chicago. "I was astonished . . .[and] wrote a letter back: 'dear consul general, NUTS'."

It is impossible to see this episode as anything but another disastrous own goal in Beijing's attempts to boost its global standing in the time of coronavirus.

From the deplorable treatment of African citizens in southern China to the export of faulty medical equipment, or the official endorsement of conspiracy theories blaming the US military for the outbreak, most of the Communist party's efforts to control the international narrative have backfired.

Some assume the west's chaotic and early response allows China to step into the global governance vacuum. Even allowing for questionable data, China has so far reported under 5,000 deaths, versus almost 30,000 in the US and nearly 20,000 each in Italy and Spain. But Beijing's attempts to take advantage of the situation are more likely to leave it isolated and distrusted on the world stage when the crisis recedes.

Wang Jisi, a legendary scholar at Peking University, says the virus fallout has pushed Sino-US relations to their worst level since formal ties were established in the 1970s. He describes bilateral economic and technological decoupling as "already irreversible".

The shift has been striking in the UK too, where influential Conservatives have called on the prime minister to be tougher on China, the British press has become more critical, and intelligence agencies have promised to focus on the threat from Beijing. In Europe and Australia, governments have rushed to block Chinese companies from buying assets cheaply amid economic carnage. And Tokyo has set aside $2.2bn explicitly to help Japanese companies move their supply chains out of China.

> Beijing's apparently self-defeating behaviour abroad makes sense in the domestic political context

But it is not just the US and its allies that have soured on Beijing. North Korea, China's only treaty ally, was the first country to close its northern border at the start of the outbreak, despite Beijing's objections to international travel bans. Russia quickly followed. Even Iranian officials have criticised China for hiding the extent of the outbreak.

Some of the criticism is clearly unfair. Populist western politicians such as US president Donald Trump have attacked Beijing to deflect from their own failings. There is also a hint of racism in the calls to shut down "disgusting wet markets". But Beijing could have gained far more sympathy if it had switched quickly to a strategy of transparency and co-operation. Instead, it arrested people who criticised its cover-up, and launched a global propaganda campaign to raise doubts about the Chinese origin of the virus and assert the superiority of its authoritarian system.

Many multinational companies have been badly burnt since Beijing effectively sealed its borders and cancelled visas last month. The expulsion of much of the US press corps from Beijing will also harden international attitudes. China's main government mouthpiece has even threatened to withhold medical supplies and block medical exports to the US so it can "cast America into a novel coronavirus hell".

All this will accelerate calls in Washington and elsewhere for rapid decoupling from Chinese supply chains. This apparently self-defeating behaviour makes more sense when you consider the domestic political context.

This is the biggest crisis that President Xi Jinping has faced since he took power in 2012. The Communist party's legitimacy has been damaged by early mistakes and the crackdown that followed. Mr Xi knows the coming economic crisis will erode support further. In the 2008 financial crisis, Beijing identified 8 per cent annual growth as the minimum to stave off social unrest. China's economy shrank 6.8 per cent in the first quarter.

Doubling down on vituperative nationalism can distract the populace, even if it damages China's global reputation in the medium term. That explains why diplomats risked turning someone such as Senator Roth, a hitherto neutral bystander or even potential ally of Chinese trade diplomacy, into an enemy.

China's goal was to publicise the resolution in state propaganda to validate party rule back home. But now the Wisconsin senator plans a very different bill. While praising the Chinese people, it will "strip the brutal Chinese Communist party naked for the world to see . . . as well as the damage it has done to the whole world through covering up this coronavirus," Sen Roth said. It is likely to pass with a hefty majority.

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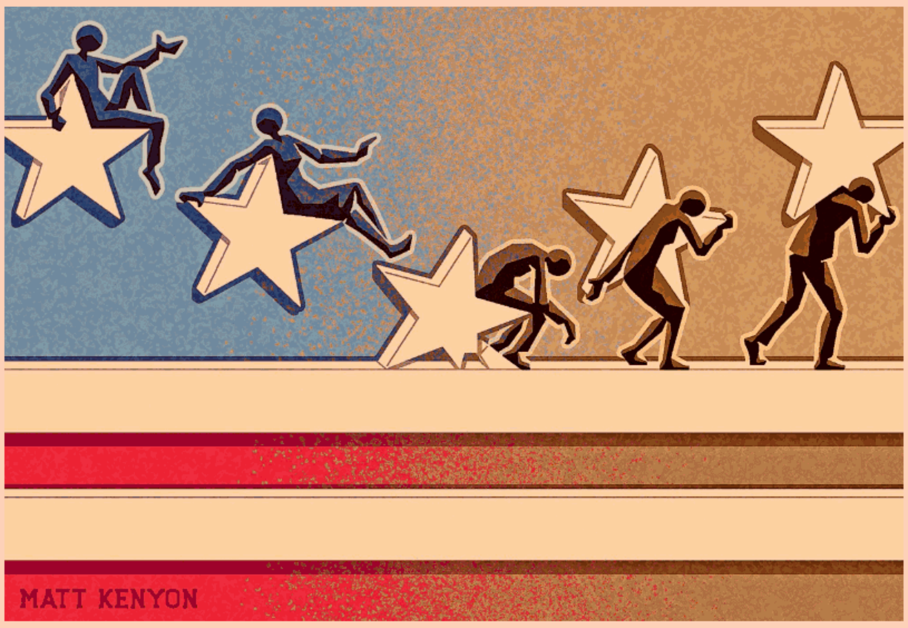
The new age of American austerity



MATT KENYON

BUSINESS

Rana Foroohar

Americans are traditionally the world's consumers of last resort. But that's about to change. Even when what the IMF is calling the Great Lockdown ends and we emerge from the immediate coronavirus crisis, the economic ramifications of this moment will produce a new age of US austerity.

The idea of Americans penny pinching for any prolonged period may seem unlikely, despite currently living through the sharpest downturn since the Depression. Today's economy, after all, is built on consumption.

Since the 1980s, the US has incentivised debt over savings for both consumers and corporations, and encouraged the growth of a financial sector that has repeatedly brewed up asset bubbles to support the spending that real economic growth could not.

In fact, the decade between the 2008 financial crisis and this one saw the creation of a vast asset price bubble in just about everything. That bubble is now bursting, exacerbating the economic changes that the pandemic has brought, be that a massive increase in public debt, the reshoring of international supply chains or technology-forced shifts in labour markets.

In many ways, the US has been here before. The period leading up to the 1929 market crash and its aftermath closely mirrors our recent past. It also suggests where we may go next: a new era in which Americans must save and produce more — and consume less.

Like the decade leading up to the financial crisis, the Roaring Twenties were marked by technological wonders, easy money (including a 1921 rate cut by the US Federal Reserve that set the stage for a stock market bubble) and massive income inequality.

Working-class wages stagnated, while the wealth of the upper class rose, buoyed by rising asset prices. Then, as now, when people couldn't afford to buy, they borrowed: in the 1920s, Americans bought more than three-quarters of major household items on credit. They also began investing in securities en masse for the first time. As Harvard economic historian Edwin Gay put it in a 1932 article in Foreign Affairs: "They were not . . . educated in the use of credit; they simply received a new vision of its possibilities."

All that ended in tears in 1929. But the changes in behaviour that grew out of the crash created a generation of people like my grandmother, who would use a tea bag several times before throwing it away. The personal savings rate of Americans soared from around zero in the early 1930s to as high as 28 per cent during the second world war.

This is crucial. Like today, government spending rose sharply in the 1930s to stave off an even bigger downturn. Federal spending was just above 3 per cent before the Depression. It rose to 10 per cent afterwards, and kept rising to over 40 per cent by the end of the 1940s. Then, as now, the budget deficit soared. Unlike today, however, private savings rates were far higher. Indeed they were positively Chinese, in part because forced rationing limited consumption, while incomes rose amid strong exports and war-related economic expansion.

It will be harder to achieve similar gains today. Reshoring supply chains could benefit parts of the US industrial sector and boost wages, in a win-win for businesses and workers; Germany's Mittelstand firms may be a model. But in the short term, deglobalisation will raise prices for everyone.

> Debt is a national burden shared by all taxpayers. We need to think about how to incentivise savings

Companies that survive the lockdown will meanwhile replace as many workers as they can with software, so unemployment will remain high. Public sector spending will also skyrocket, with US federal debt growing from nearly 80 per cent of gross domestic product before the crisis to over 100 per cent by October, and then probably higher still. This will further hurt economic performance: academic opinions about worrisome debt thresholds vary, but it's clear that high and rising debt levels do dampen economic growth.

What the US government is doing now isn't some sort of productive Keynesian spending programme, but a full-scale bailout of everything. Perhaps some wise fiscal stimulus in areas like infrastructure will make some of that additional debt load more productive. But it's hard to see how that will offset the huge economic headwinds that we face. This isn't the 1990s and the US economy will struggle to grow out of the situation.

The solution, based on history, is clear. Americans are going to have to save a lot more. In 2010 a prescient McKinsey Global Institute study, of 45 episodes of deleveraging in mature economies since 1930, showed that half involved sustained periods of austerity, slow credit growth and higher savings.

This doesn't mean we don't need the vast government spending being implemented now. But it does mean the US needs an honest conversation about where to go from here.

Ultimately, debt is a national burden shared by all taxpayers. Policymakers therefore need to think about how to incentivise savings: trimming every unproductive debt and leverage loophole from the tax code is a good place to start. In time, the Fed will also have to explain how it will shrink all that debt off its balance sheet. And everyone will have to think about thrift. Enter the new age of American austerity.

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Italy is in more danger than the eurozone knows

EUROPE

Wolfgang Münchau

The spread between Italian and German bonds rose last week to around 2 percentage points. Why should that be so? Unlike in 2012, there is no looming threat of a liquidity crisis. The European Central Bank's Pandemic Emergency Purchase Programme will probably ensure that the Italian government is safe to issue whatever debt it needs this year. Rather, Italy's problems are of a different nature.

As of the end of last year, Italy's public sector debt was 136 per cent of gross domestic product. Over the previous decade, it had increased by 30 percentage points. If you assume that the coronavirus lockdowns leave Italian GDP 10 per cent lower than in 2019, and if outstanding debt increases by 20 per cent, then its debt-to-GDP ratio balloons to 180 per cent. When debt rises and output falls at the same time, these ratios shoot up fast.

So what should Italy do? I see three courses of action. My expectation for this week's virtual meeting of EU leaders is a compromise on a restructuring fund. Once the applause fades and people look at the details, they will realise it will have no macroeconomic relevance. This will leave the ECB, once again, as the only EU institution that matters. Its pandemic programme will do the necessary this year.

But what about afterwards? The only available instrument left for the ECB to deploy is former president Mario Draghi's "outright monetary transactions" — the never-launched programme that will forever be associated with his 2012 promise to "do whatever it takes" to save the eurozone. This would allow the ECB to undertake unlimited purchases of Italian debt, but only if Italy applies to the European Stability Mechanism for an enhanced conditions credit line. This is like an overdraft facility with some mild conditionalities. It is not the facility itself that matters, but its link to an ECB programme.

Yet there does not appear to be a majority in the Italian parliament for ESM support. Nor is it clear that the ECB would agree to trigger OMT. The argument is that it is not intended to address looming insolvency.

> It is hard to overstate the turn to Euroscepticism. That will not go away when lockdown ends

Another course is for Italy to default, or seek a debt restructuring. This may be compatible with eurozone membership, but would need ECB involvement as otherwise Italian debt would lose its status. Domestic banks are another priority. As they hold much of Italy's sovereign debt, default could lead to bank failures. Still, as Irish economist Karl Whelan points out, Italy could "haircut" its bonds and win enough savings to nationalise and save them. Investors would be wiped out but deposits saved.

Finally, there is always the spectre of a eurozone exit. It is not a probable event. But then again, nor was Brexit. As happened in the UK, Italians are beginning to blame the EU for everything that is going wrong. I heard a story of someone blaming the Dutch for the delay in their unemployment payments. This is an absurd accusation, of course. But the Five Star Movement, the senior partner in the ruling coalition, may see an opportunity to revive its flagging political support and play to rising anti-EU sentiment. It is hard to overstate Italy's dramatic turn to Euroscepticism. It will not go away when lockdown ends.

Emmanuel Macron is right to warn about the unravelling of the EU. I fear, however, that the French president will avoid a long-overdue confrontation with Germany, which remains sceptical about the idea of eurozone bonds. Unless he is willing to get such a bond under way with a smaller group of member states, his threat is cheap talk. If Giuseppe Conte, Italian prime minister, acts in the spirit of his predecessors, he will agree to a foul compromise and discover later that the costs outweigh the benefits. Once that realisation sets in, there will not be many good options left.

When northern Europeans discuss eurobonds or similar instruments, they frame the debate in terms of solidarity and charity or, in the Dutch case, as a gift. They do not see it as risk insurance. There is zero appreciation in Germany, and, I suppose, the Netherlands too, of a potentially catastrophic downside to their financial sectors and their economies were Italy to default.

Yet, default becomes increasingly probable if politics rules out alternatives. If or when that happens, the eurozone will not be ready.

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A bailout of the oil industry is a fate worse than death

MARKETS

Megan Greene

Whenever things went wrong growing up, my dad would tell me, "What doesn't kill you only makes you stronger." Dying was supposed to be the worst-case scenario. He never mentioned zombies. But that's what a bailout for the oil industry would create: zombie companies that can't earn the cost of staying in business, kept afloat with taxpayer dollars.

The oil patch in the US has been hit by a double whammy. The Saudi-Russian fight for market share helped drop the price of West Texas Intermediate, the American benchmark, to just above $20 a barrel. Then came coronavirus lockdowns, and an unprecedented collapse in demand for oil. While Easter Sunday's Opec+ deal should reduce the supply glut, it is dwarfed by demand problems: WTI fell to below $19 a barrel soon after.

With storage facilities near full, there will soon be no place to put the oil. Drillers, producers and oilfield servicers will be forced to halt production and lay off workers. Washington is now in bailout mode. The Trump administration offered storage space in the Strategic Petroleum Reserve. The Energy department is developing a plan to pay producers to leave crude in the ground.

There are valid economic arguments for a bailout. Energy is an important driver of investment. The last time WTI dropped significantly, in 2015-16, capital expenditures contracted and the US fell into an industrial and manufacturing recession. Employment in the oil and gas sector fell by about one-third. Some say it contributed to the discontent that pushed Donald Trump to the presidency in 2016.

> The business model for many exploration and production firms was broken before prices fell

But the business model for many exploration and production companies was broken before oil prices fell. Fuelled by cheap credit, US shale producers borrowed heavily to invest in drilling, causing the US energy bond market to triple in size over the past decade. The focus has been on producing quantity to conquer market share and the flood of oil has yielded low returns for equity investors, as frackers reinvested windfalls and raised top executive pay. US fracking pioneer Chesapeake Energy, for example, hasn't generated a single year of positive free cash flow in the past decade. As debts rose along with oil supplies, a shakeout was inevitable.

A bailout would throw good money after bad, propping up an industry desperately in need of productivity gains and consolidation. Instead, the industry should be left to adapt. According to analysts at Rystad Energy, shale producers should be able to cut costs by 16 per cent this year, productivity gains that would not happen with government funding. High-cost or highly indebted small producers — and their infrastructure — should be taken over by larger, solvent companies. While that would result in bankruptcies and debt write-offs, it would reduce financing costs for those left standing. The industry would come out stronger and more profitable.

A backhanded industry argument for a bailout is that bankruptcies threaten investors and banks with big losses. That's the nature of capitalism. Investors take risks and are often rewarded with high returns. Sometimes investments go south and they have to absorb losses, but it's not a systemic risk. A compilation of annual disclosures by Bloomberg News shows Citigroup, Bank of America, Wells Fargo and JPMorgan are the largest US bank energy lenders. Only about 1 to 3 per cent of their portfolios are exposed to the industry. A series of defaults would hurt, but it would not alone bring down the big banks.

Of course the government should offer support for energy workers facing lay-offs, along with all those losing their jobs in the crisis. But while many companies closed by coronavirus were healthy beforehand, many in the oil industry were already on a path to failure. This is no time to create zombies.

The writer is a senior fellow at Harvard Kennedy School

Hit for six
India's lucrative cricket league gets battered by coronavirus
COMPANIES & MARKETS

All rise for Saint Jacinda, a leader for our troubled times

Pilita Clark
Business Life

Details: Jacinda Ardern's mastery of minutiae has served her well — Bloomberg

Thursday did not start well for Matt Hancock. Britain's 41-year-old health secretary began a morning television interview looking like a glummer version of the chipper, Cheshire-born economist he was before he became an MP 10 years ago. It got worse as he was pounded for a string of government blunders over coronavirus testing and equipment failures. Then came a question that went something like this: In New Zealand, where they have had just two Covid-19 deaths per million people (in the UK it's more than 200), prime minister Jacinda Ardern has just said she and her ministers would take a 20 per cent pay cut to show solidarity with those struggling financially because of the outbreak. Will you?

"Well I'm not proposing to do that," said Mr Hancock. "What I am proposing to do is work every hour that there is." Asked the same question, Australia's prime minister, Scott Morrison, said firmly: "It's not something that's being considered."

The first thing I thought about this was that it was unsurprising. Ms Ardern has been a model of compassionate leadership in this crisis. The second thing I thought was the leaders she is showing up must be starting to loathe her. It's not that she is perfect. Before the outbreak she was in trouble for failing to deliver on a slew of housing, poverty and tax plans, having once declared 2019 would be her government's year of "delivery".

She is also in charge of a relatively remote and uncrowded country that the virus took longer to reach. And it is too early to be certain of her ultimate success. But astute Londoners stranded in New Zealand during the crisis, and others who have recently moved there, confirm there are at least four important Ardern leadership lessons that deserve attention, starting with her under-appreciated command of detail.

One day during the 2017 general election campaign that eventually resulted in her prime ministership, she toured a factory that made fibreglass insulation known as pink batts.

As a New Zealand Herald journalist wrote at the time, when she was asked a few days later if she could remember what a batt was made of, she said it included recycled glass. What kind of glass? "Off-cuts of window glass." What temperature is the molten glass when heated? "1,200 degrees." And so on.

> “The leaders the New Zealand prime minister is showing up during this global crisis must be starting to loathe her”

A mastery of minutiae may have helped Ms Ardern deliver a second lesson in the importance of co-ordination, which is said to be very evident within her government.

Contrast that with what happened to me last week as I tried to pin down why the UK's Covid-19 travel restrictions were so much looser than those in other countries. Public Health England suggested I try the Foreign Office. The Foreign Office said I should contact the Health department or the Home Office. The Health department said I should contact the Foreign Office and the Home Office. The Home Office said I should contact the Cabinet Office. The Cabinet Office said I should contact the Foreign Office and the Health department.

Care for detail and co-ordination leads to a third factor: smart policies, like New Zealand's plan to fund wider pavements and cycle paths to help people stay further apart. Or the two dedicated education TV channels it has launched to help home schooling. Or the effort to send thousands of laptops and learn-from-home materials to students, while trying to boost their internet connections. It is even better if, while doing all this, you are honest enough to say there will be problems.

"This is a big complex project that is being undertaken at pace so we know it will take time to get it right," the NZ education ministry says on its website. Compare this with other leaders' repeated insistence that no mistakes have been made, a dangerous ploy at a time when public trust is vital.

Ms Ardern's communication skills have already been praised in this column. Since then she has doubled down, confirming the Easter bunny was considered an essential worker. And when asked if she had contacted the New Zealand nurse Boris Johnson said had helped him survive Covid-19, Ms Ardern said she had tracked her down on Facebook and sent a message.

Yet the main point is not just that she is caring and outwardly normal. She is also clearly competent at a time when so many others are not.

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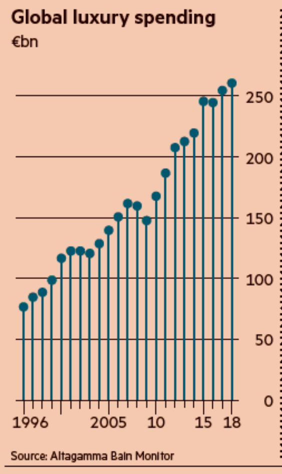
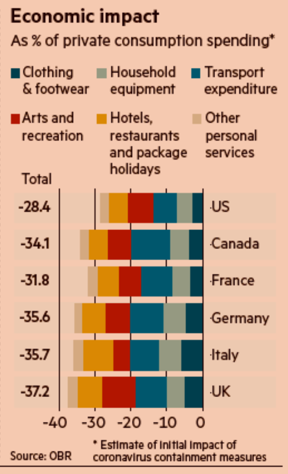
Lex

Consumer spending: urge to splurge, on hold



Global luxury spending
€bn

Source: Altagamma Bain Monitor



Economic impact
As % of private consumption spending*

Source: OBR
* Estimate of initial impact of coronavirus containment measures

Hard times play out differently for the rich. "Remember, when our customer tightens their belt, it's generally ostrich or alligator," said the boss of upmarket department group Neiman Marcus, as he eyed the advancing 2008 recession.

Now as then, many businesses are counting on the better-off. Some may have more to spend as a result of the lockdown. The richest fifth of British households normally blow a fifth of their spending on eating out and holidays, compared with just 12 per cent of the poorest fifth, said the Institute for Fiscal Studies think-tank.

After the pandemic, some might be keen to spend quickly the money they were forced to save. In China such buying binges have been dubbed "revenge spending".

Splashing cash may not fit the mood of the times. It could be seen as divisive, especially given the important role played by poorly paid key workers during the pandemic.

Moreover, higher unemployment and taxes will depress consumer confidence. Ipsos Mori surveys found the economic anxieties of the affluent post-2008 took years to lift.

Airlines such as Lufthansa forecast it will be years until the demand for air travel returns to pre-crisis levels. Eating out might take eight years to recover, if it followed the pattern of the recessions of 1990 and 2008, said analysts at Barclays. The impact could be more severe if social isolation becomes "normal", they said.

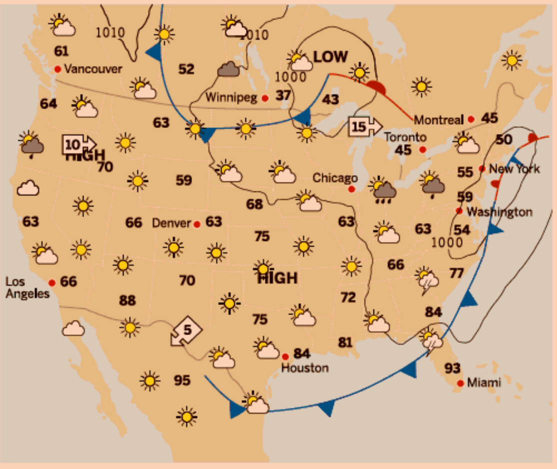
But predicting consumer behaviour is tricky. To take one example, few economists foresaw the surge in UK consumer spending immediately after the Brexit vote. It is possible the desire to spend will be sharpened by the current misery of lockdowns.

There are precedents. In 14th-century Europe, sumptuary laws were passed to limit the rise in conspicuous consumption following the Black Death. Something similar happened in the hedonism of the "roaring twenties" and the extravagance of Christian Dior's postwar 1947 "New Look" fashion.

Periods of great crisis always lead to an increase in the propensity to buy, Jean-Christophe Babin, boss of LVMH's jeweller Bulgari, told Vogue magazine last week. That might sound like wishful thinking from an industry peering over the abyss. Luxury sales are forecast to fall more than a third this year.

The sector must hold out hopes that a pent-up desire to live life to the full will be unleashed once the pandemic ends.

WEATHER



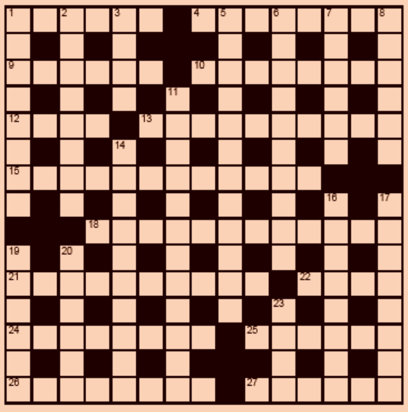
Forecasts by MeteoGroup
Warm front · Cold front · Occluded front · Wind speed in MPH

Today's temperatures Maximum for day °C & °F

City	Weather	°C	°F	City	Weather	°C	°F
Amsterdam	Sun	17	63	Madrid	Fair	19	66
Athens	Fair	23	73	Manila	Sun	36	97
Atlanta	Fair	23	73	Melbourne	Cloudy	20	68
Beijing	Sun	16	61	Mexico City	Sun	30	86
Belgrade	Fair	19	66	Miami	Cloudy	34	93
Berlin	Sun	15	59	Montreal	Sun	7	45
Bermuda	Cloudy	22	72	Moscow	Shower	8	46
Bogota	Rain	20	68	Mumbai	Sun	37	99
Brussels	Sun	19	66	Nassau	Fair	33	91
Buenos Aires	Sun	28	82	New York	Fair	13	55
Caracas	Shower	31	88	Nice	Shower	17	63
Chicago	Fair	14	57	Oslo	Sun	19	66
Copenhagen	Sun	13	55	Paris	Sun	21	70
Dallas	Fair	24	75	Prague	Sun	13	55
Delhi	Fair	35	95	Reykjavik	Rain	10	50
Doha	Fair	30	86	Rio	Sun	27	81
Dubai	Fair	36	97	Rome	Shower	19	66
Dublin	Sun	13	55	San Francisco	Cloudy	17	63
Edinburgh	Sun	13	55	Seoul	Fair	13	55
Frankfurt	Sun	20	68	Shanghai	Fair	23	73
Geneva	Cloudy	19	66	Singapore	Fair	34	93
Hamburg	Sun	16	61	Stockholm	Fair	13	55
Helsinki	Cloudy	12	54	Sydney	Fair	22	72
Hong Kong	Sun	29	84	Taipei	Cloudy	27	81
Honolulu	Drizzle	28	82	Tel Aviv	Sun	27	81
Jakarta	Shower	33	91	Tokyo	Rain	13	55
Karachi	Sun	34	93	Toronto	Fair	7	45
Lima	Fair	25	77	Vancouver	Fair	16	61
Lisbon	Shower	16	61	Vienna	Sun	15	59
London	Sun	17	63	Warsaw	Fair	12	54
Los Angeles	Cloudy	19	66	Washington	Rain	15	59
Luxembourg	Sun	19	66	Zurich	Fair	17	63

CROSSWORD

No. 16,455 Set by VELIA



ACROSS
1 Handicap: Velia's deep in trouble (6)
4 Come together when disorder returns with capacity to contain it (8)
9 Old, into undies – extremely disgusting! (6)
10 Rubber gloves ruin one medal (8)
12 Knowing to take the first of the month off (4)
13 Beat in song producing heart trouble (10)
15 Royal following orient light is a christian symbol (6,6)
18 Arbitrator set up a retro-style appliance (12)
21 Special role is coming up – likely audition required at the start (10)
22 Greeting sounding more cheerful (4)
24, 25 Substantial returns in brown fields firms up stuff of value (8,6)
26 Thus token arrangement needed for time off (4,4)
27 Freezing a Roman Catholic movement (6)

DOWN
1 Pagan vows in future (8)
2 Royal home counties first to get media coverage (8)
3, 23 Doctor extremely understanding, sure to reform addict (4,4)
5 Rob disrupting grandma's bash! (5-3-4)
6 Tired out west gun-toting literary style (10)
7 Sweepers in second rate digs? (6)
8 Make beloved say, "what comes after M darling?" (6)
11 Targeting aid is right during awfully cruel battle (6,6)
14 Box of novelties I distributed (10)
16 Harsh dirt's dished up on hospital department (8)
17 Is racist out of control in this period? (8)
19 Series of unfortunate events spread on board (6)
20 Some kir on ice with a twist 2(6)
23 See 3

JOTTER PAD