

LIVERPOOL INVESTMENT LETTER

March 2020



Cardiff Business School

Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics

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LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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The Julian Hodge Institute was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Hodge. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. The research has been particularly germane in recent years and has proved to be of significant social and political relevance as Europe has navigated the difficulties of the global financial crash, the Eurozone crisis and most recently the UK referendum on EU membership. The Liverpool Investment Letter is written by Patrick Minford, with the assistance of other members of the Group; in particular the emerging markets section is written by Anupam Rastogi, and the focus on Japan is written by Francesco Perugini. The Investment Letter is published monthly.

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THE CONSERVATIVE BUDGET QUESTION

Though the budget was scheduled for March 11, the government had already suggested that it would not announce any final decisions about taxes and spending. Rather these would be deferred until the autumn- an autumn budget. Nevertheless, this is a good moment to consider the budgetary changes we need to have in due course

We must put on one side the huge fiscal package announced for the virus — strictly necessary to prevent a crash. The question is what should follow it as and when the economy recovers, getting back to work.

In its election manifesto the Conservative party committed itself to following a fiscal rule for balancing the current budget by 2023. While that may have made sense as a tactical election decision to create clear blue water between it and the reckless spending promises in the Labour manifesto, it creates a problem for post-Brexit fiscal policy in the current economic context. The true cost of borrowing is now negative: in other words, lenders are offering to pay the government to borrow from them. Furthermore, the reforms Brexit will bring in on trade, regulation and immigration promise faster future growth in the long term — even if most officials and the many private sector economists who backed Remain still take an opposing gloomy view. Finally, there is a need for fiscal policy to give the economy a boost not just to put a firm end to Brexit uncertainty, but also to cut taxes to stimulate entrepreneurs, to raise essential spending on public services, and, last but not least, to push interest rates higher to a range where monetary policy can get traction again.

For all these reasons we need fiscal policy to become much more expansionary over the next decade. The tactical issue of how to square this with the manifesto commitment can in fact be dealt with quite easily, since the fiscal rules include the ‘golden rule’ that investment can be funded by borrowing. What is ‘public investment’ is in the process of being redefined potentially in ongoing technical discussions within the ONS and Treasury. It has never made sense to limit it to infrastructure and other physical investment in this age where ‘human capital’ is ever more important: human capital is the discounted present value of people’s productivity. Much current government spending contributes to or directly creates human capital, notably the two big departments, health and education. Arguably most if not all public spending does, since its aim is to empower, train, and keep safe the country’s population, so enhancing their ability to work and produce.

By redefining current spending on a par with investment spending, we can shift the focus of ‘fiscal limits’ to where they belong: the long term sustainability of the plans for debt, spending and tax. In other words, are these plans consistent with solvency and the health of the long term government balance sheet? All these policy areas are at the heart of democratic decision-making, so to try and short-

circuit decisions on them by imposing ad hoc short-termist operating rules is both lazy and damaging in the long term.

Table 1: Summary of Forecast

	2017	2018	2019	2020	2021	2022	2023
GDP Growth ¹	1.8	1.4	1.3	1.9	1.9	2.1	2.1
Inflation CPI	2.6	2.5	1.7	1.9	2.0	2.0	2.0
Wage Growth	2.8	3.1	3.7	3.0	3.2	3.1	3.2
Unemployment (Mill.) ²	0.8	0.9	0.9	0.8	0.7	0.7	0.7
Exchange Rate ³	77.4	78.6	78.3	79.6	79.4	79.3	79.1
3 Month Interest Rate	0.4	0.7	0.8	1.1	1.9	2.4	3.1
5 Year Interest Rate	0.6	1.0	0.8	1.3	2.4	3.3	3.4
Current Balance (£bn)	-68.3	-81.3	-93.6	-42.0	-30.0	-20.5	-14.4
PSBR (£bn)	53.7	40.8	43.2	20.4	8.4	4.4	0.7

¹Expenditure estimate at factor cost

²U.K. Wholly unemployed excluding school leavers (new basis)

³Sterling effective exchange rate, Bank of England Index (2005 = 100)

Let us therefore get back to the substantive issue of what fiscal policy should be and why.

The most serious aspect of the situation we are in relates to the crisis of monetary policy. Western central banks including our own Bank of England, allowed a big credit boom before the financial crisis. Then when it predictably hit the buffers of resource constraints and caused big bank losses, instead of injecting enough liquidity into the banks to make sure of their survival, they feebly — and apparently under political pressure — allowed Lehman to go under, and so caused the financial crisis. Then, just when they needed to get banks up on their feet, lending strongly for the recovery, they hit banks with a huge regulatory whammy, requiring big rises in expensive equity capital. The recovery and credit growth duly stalled and the deflationary threat took over, with interest rates down to zero. Since then central banks have twisted and turned, rolling out Quantitative Easing (a gigantic programme of printing money to buy government and corporate bonds), which has made it an easy financial world for governments and big companies, and a tough world for SMEs (loans to them force extra high capital needs) and savers. The result has been weak growth and rising monopoly power, with falling productivity growth.

It is a terrible mess and a dreadful record. How to get out of it? With monetary policy powerless until interest rates get back up to normal levels where world savings do not dwarf world investment, we need a period where fiscal policy is highly expansionary, to shift the world balance back towards a savings shortage and drive up rates. Fortunately, this is the approach of Donald Trump and could well be, certainly should be, that of Boris Johnson too, though unfortunately not yet elsewhere as yet.

Now turn to what this Conservative government could do and the long term prospects this could help unleash.

Our calculations suggest the government could spend or cut taxes by an extra £100 billion a year (about 5% of GDP)

quite safely by borrowing more. The programme could comprise:

- Spend £24 billion a year on public services and infrastructure.
- Cut corporation tax by 10%: £32 billion p.a.
- Abolish the very top additional 5% rate: £1 billion p.a.
- Cut the top rate of income tax to 30%: £15 billion.
- Cut the standard rate of income tax by 5%: £28 billion.

According to the Liverpool supply side model of the UK, every 2% off the average tax rate, or equivalent cost reductions via public spending, gains 1% on GDP in the long run by making the economy more competitive. On this basis we could assess that this programme would raise growth by about a 1% a year over the next decade and a half. This would come on top of the gains from Brexit itself which we put at about 0.5% per annum. By achieving higher interest rates, the government would reduce the market value of its large existing, mostly long term, debt by around a massive £500 billion.

What would this do to the long term government balance sheet? By the end of the 2020 decade the debt/GDP ratio would be around 55%, well below today's 72% and comfortably below the 60% ratio usually regarded as safe. The government, with a much higher GDP, would be spending 40% of GDP on programmes including debt interest, with tax revenues running a higher at around 41%. All this is highly sustainable.

It may well seem that with the Covid-19 virus threatening world recession, this is not a good time to launch such a bold programme. On the contrary, such economic uncertainty needs to be confronted with a strong fiscal stance, to ensure it does not become self-reinforcing. Rishi Sunak needs to scotch all talk of new taxes, pledge to underpin the economy with any necessary borrowing in the short term, as he already has done, and chart a new course along the lines above to unleash this country's economic potential in the long term.

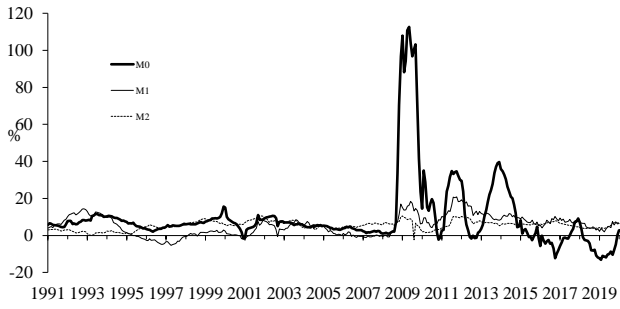
Our latest forecast

It is important in all this not to accompany fiscal expansion by yet more printing of money; the fiscal policy needs to make money scarcer and drive up interest rates., pushing monetary conditions to normality.

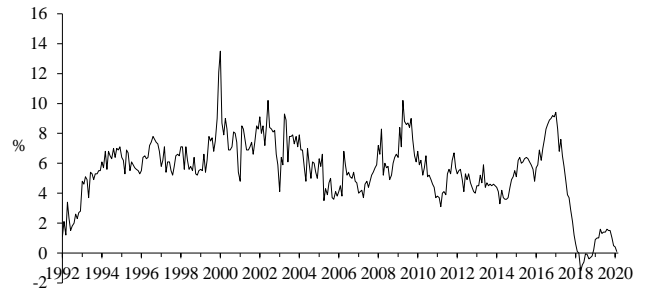
We have had the Boris Brexit bounce. But straight after it has come the coronavirus shock to world growth. It seems all too likely that this last shock will predominate in the short term, making 2020 another year of slow growth. With fiscal policy set on timid, this means we will have to wait for the effects of trade liberalisation to pay off in terms of greater competition and market opportunities for new investment from here or from abroad, before we see an uplift to growth.

If so, this would sadly underline an important missed opportunity for fiscal policy to signal the major change in government strategy that Brexit is bringing.

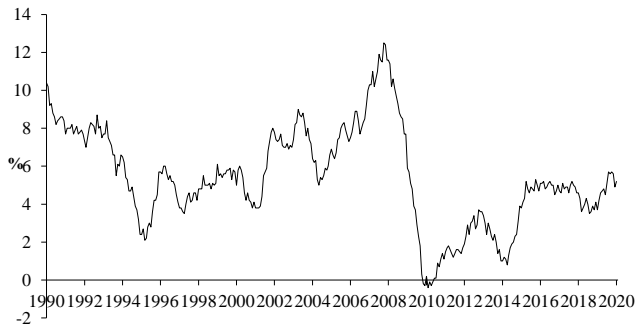
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



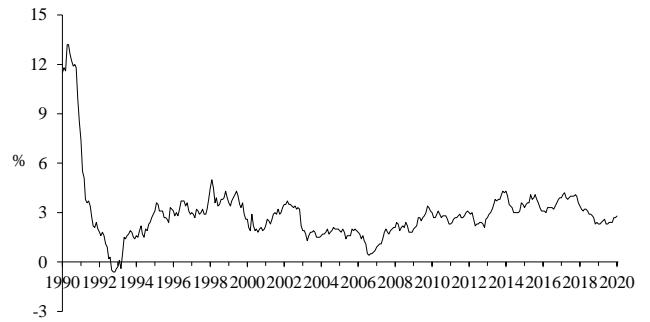
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japan's economy heading for recession

The Japanese economy shrank at its fastest pace in more than five years at the end of 2019 — putting it on the brink of recession as the impact of the coronavirus begins to bite. Official figures showed gross domestic product (GDP) declined by 1.6% in the last quarter from the previous one. “The government had hoped Japan’s economy would continue a moderate recovery. But we must be vigilant against the impact of the coronavirus on domestic and overseas economies,” Economy Minister Yasutoshi Nishimura said in a statement issued after the GDP’s release.

Prime minister Shinzo Abe’s government was quick to blame typhoons and unseasonably mild weather; however, the fall in output was large and uniform across the country. It was the direct, predictable consequence of a rise in consumption tax from 8% to 10% at the start of October. The Abe administration and the Bank of Japan (BOJ) had expected a smaller impact from the tax hike compared with the experience in 2014, when it buckled the economy by more than 7%. The tax increase this time was smaller, foods were exempted, and the government deployed a raft of countermeasures aimed at smoothing out fluctuations in demand. But economists said some of the government’s steps, such as rebates on spending via cashless transactions, had limited impact as they didn’t appeal to an older segment of the population not used to mobile phone payment platforms. The latest data showed that private consumption plunged by 2.9% q-o-q in the quarter, as households slashed their purchases of cars, cosmetics and domestic appliances. In 2014 the hit was 18%. Businesses also scaled back investment by 3.7% q-o-q, preferring to wait for signs of a recovery from the tax shock before committing to further spending. The figures laid bare the vulnerability of domestic consumption to tax hikes, according to Takashi Shiono, an economist at Credit Suisse Group.

The rise in consumption tax also raised questions about whether seven years of so-called “Abenomics” — a mix of fiscal stimulus, loose monetary policy and structural reforms — have done anything to make Japan’s economy more resilient to shocks. Many analysts doubt whether the government and the central bank have effective means to fight another recession given their dwindling policy ammunition. “The government has already taken steps to respond to the sales tax hike and post-Olympics slowdown, so you cannot expect further steps on the fiscal front,” said Takeshi Minami, chief economist at Norinchukin Research Institute. “There’s not a lot more the BOJ can do either ... Additional easing may do more harm than good to the economy,” he said. Moreover, even if the prime minister acted straight away, it would probably take months to compile and pass another round. “So far, none of last year’s stimulus has taken effect. The first thing to consider is

accelerating that spending,” said Harumi Taguchi, principal economist at IHS Markit in Tokyo.

And we must factor in the coronavirus scare. Of the Japanese companies with operations in China, 87.1% suspended production in response to the emergency, the Nikkei leading newspaper reports, and 56.2% are experiencing continued disruption to their Chinese operations. Some 70 Japanese large-cap companies get at least 10% of their sales in China, according to the research centre Nomura.

It is unclear how long the virus outbreak will continue, but the entire global economy could suffer from a prolonged shock in China, and some economists are already predicting slower growth for the year. The virus’s ripple effects are hitting Japan particularly hard: China is its largest trading partner and by far its biggest source of visitors, many of whom come ready to shop. Moreover, the tourism industry, which has grown significantly in importance to the Japanese economy in recent years, could be negatively affected. The number of visitors to Japan has more than tripled over the last decade, reaching 31 million in 2018, according to government statistics. Nomura warns though that if it continues for a year Japan will see a GDP loss of ¥2.47 trillion (equivalent to 0.45% of the overall total). This is the economic impact from reduced demand from overseas visitors.

Already government officials are hinting that more spending is in the pipeline if a slump looks certain. “We will keep paying careful attention to the virus’s effect on tourism and the wider economy,” economy minister Yasutoshi Nishimura said in a statement. “According to the level of emergency, we will take necessary steps as needed in a flexible manner and respond fully.” Abe unveiled initial measures to counter the impact of the coronavirus last week, but so soon after releasing his economic package in December, he is likely to want to see harder evidence of a recession before mulling another large spending spree.

There is little doubt, however, that the latest slump in output is another blow to Abe and BOJ governor Kuroda’s plans for Japan to finally escape the “lost decades” of stagnation and falling prices that followed the bursting of a stock market bubble in 1990. The idea was for monetary and fiscal stimulus to revive demand and inflation while structural economic reforms allowed for a higher level of growth. Initially, it worked as intended: the Japanese yen weakened, and growth picked up. The economy has generally been stronger during Abe’s term than in previous decades. But a 2014 rise in consumption tax from 5% to 8% drove the economy into recession, and after last year’s increase to 10% there is a danger of a repeat. To many in Japan, the tax rises were necessary and appropriate given the fiscal deficit and the need to pay for its ageing population, but they have also

cancelled out any fiscal stimulus measures and resulted in overall fiscal contraction under Abe. The only sensible action Abe can take in the short-term, other than a politically

impossible reversal of the tax rise, is more fiscal stimulus. The problem, as it has been throughout the past seven years, is not Abenomics. The problem is not enough of it.

MARKET DEVELOPMENTS

The coronavirus is threatening a world slowdown, even recession. However, it makes little sense to think that this can be a permanent disruption of growth. World growth

will resume in time. Equity values should therefore recover and be sustained.

Table 1: Market Developments

	Market Levels		Prediction for Jan/Feb 2021	
	Feb 6	Mar 4	Previous Letter	Current View
Share Indices				
UK (FT 100)	7505	6816	9764	8717
US (S&P 500)	3346	3130	3744	3503
Germany (DAX 30)	13575	12128	20457	18276
Japan (Tokyo New)	1737	1503	2267	1961
Bond Yields (government)				
UK	0.67	0.64	1.30	2.30
US	1.61	0.98	2.00	2.80
Germany	-0.38	-0.63	-0.40	-0.20
Japan	-0.03	-0.10	-0.10	0.00
UK Index Linked	-2.02	-2.13	1.00	1.00
Exchange Rates				
UK (\$ per £)	1.29	1.28	1.32	1.32
UK (trade weighted)	80.39	78.69	80.7	79.4
US (trade weighted)	101.94	102.78	102.5	102.5
Euro per \$	0.91	0.90	0.85	0.85
Euro per £	1.18	1.15	1.12	1.12
Japan (Yen per \$)	109.98	107.29	112.5	112.5
Short Term Interest Rates (3-month deposits)				
UK	0.83	0.83	2.00	1.80
US	1.77	1.19	1.80	1.80
Euro	-0.41	-0.46	-0.50	-0.50
Japan	-0.10	-0.15	-0.10	-0.10

Table 2: Prospective Yields¹

Equities: Contribution to £ yield of:						
	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.60	1.9	2.0	24.00		31.50
US	1.99	1.9	2.1	7.90	-2.98	10.91
Germany	3.30	1.0	1.7	48.00	2.48	56.58
Japan	1.90	0.3	1.2	29.00	-7.98	24.41
UK indexed ²	-2.02		2.0	2.00		7.88
Hong Kong ³	2.60	5.6	2.1	-15.00	-2.98	-9.88
Malaysia	3.30	4.4	2.1	39.00	-2.98	45.82
Singapore	3.50	1.0	2.1	-7.00	-2.98	-3.38
India	1.40	6.5	2.1	8.00	-2.98	9.52
Korea	1.10	1.8	2.1	-32.00	-2.98	-25.58
Indonesia	2.20	5.1	2.1	23.00	-2.98	29.42
Taiwan	2.80	2.6	2.1	14.00	-2.98	16.32
Thailand	3.20	2.1	2.1	10.00	-2.98	14.41
Bonds: Contribution to £ yield of: –						
	Redemption Yield	Changing Nominal Rates	Currency	Total		
UK	0.67	-16.63				-15.99
US	0.98	-18.24		-2.98		-20.24
Germany	-0.63	-4.34		2.48		2.49
Japan	-0.10	-1.00		-7.98		-9.08
Deposits: Contribution to £ yield of:						
	Deposit Yield	Currency	Total			
UK	0.83		0.83			
US	1.19	-2.98	-1.79			
Euro	-0.46	2.48	2.02			
Japan	-0.15	-7.98	-8.13			

¹ Yields in terms of €s or \$s can be computed by adjusting the £-based yields for the expected currency change.

² UK index linked bonds All Stocks

³ Output based on China.

Table 3: Portfolio(%)

	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	February Letter	Current View	February Letter	Current View	February Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
German Bonds	-	-	-	-	-	-
Japanese Bonds	-	-	-	-	-	-
UK Shares	19	19	14	14	17	17
US Shares	14	14	19	19	16	16
German Shares	14	14	14	14	21	21
Japanese Shares	9	9	9	9	11	11
Hong Kong/Chinese Shares	4	4	4	4	4	4
Singaporean Shares	4	4	4	4	4	4
Indian Shares	4	4	4	4	4	4
Thai Shares	3	3	3	3	3	3
South Korean Shares	4	4	4	4	4	4
Taiwanese Shares	4	4	4	4	3	3
Brazilian Shares	4	4	4	4	3	3
Chilean Shares	4	4	4	4	3	3
Mexican Shares	4	4	4	4	3	3
Peruvian shares	4	4	4	4	3	3
Other:						
Index-linked bonds (UK)	-	-	-	-	-	-

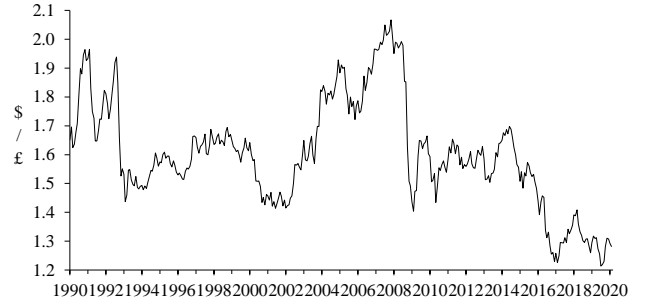
INDICATORS AND MARKET ANALYSIS

FOREIGN EXCHANGE MARKETS

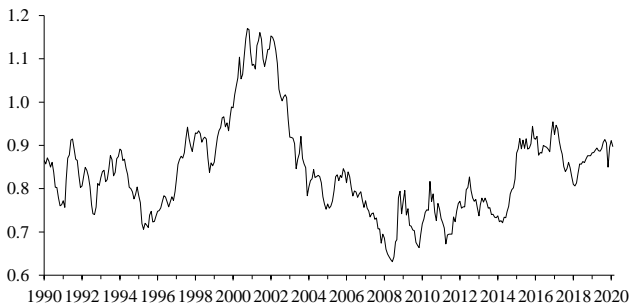
**US : Trade Weighted Index
(Bank of England 1990 = 100)**



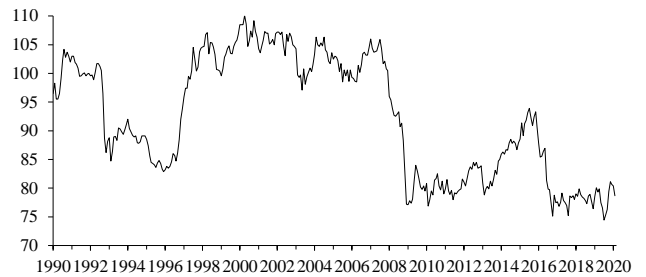
UK: Dollars Per Pound Sterling



Euro per US dollar



**UK: Trade-Weighted Index
(Bank of England 1990 = 100)**



Japan : Yen Per U.S. Dollar

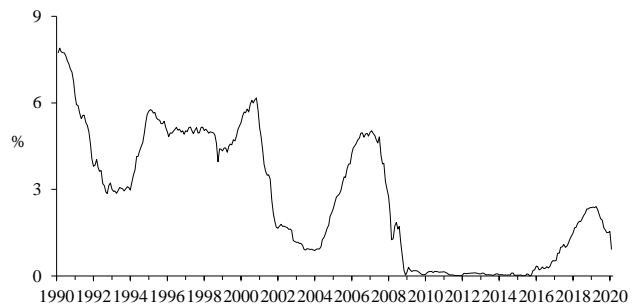


GOVERNMENT BOND MARKETS

U.S.: Yield on Long-Term Government Bonds



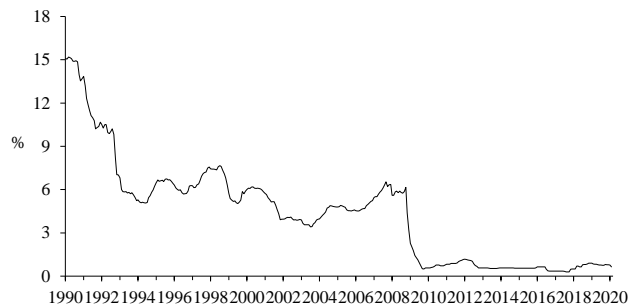
U.S. : 3-Month Treasury Bill



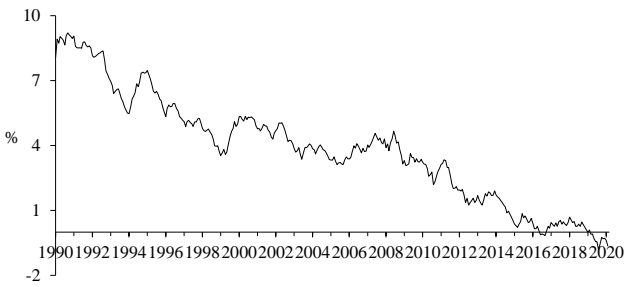
U.K.: Yield on Long-Term Government Bonds



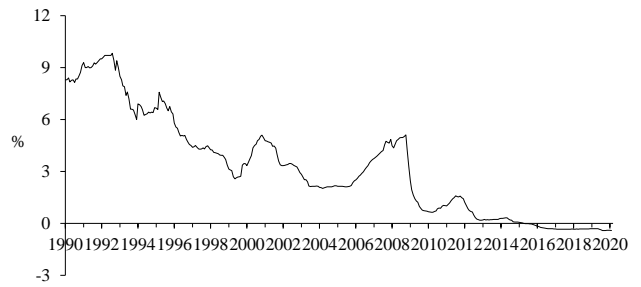
U.K. : 3-Month Certificate of Deposit Rate



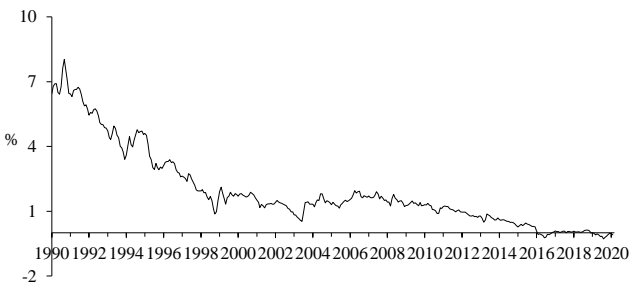
Germany: Yield on Public Authority Bonds



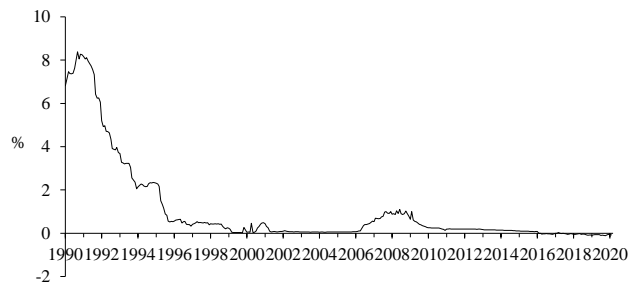
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

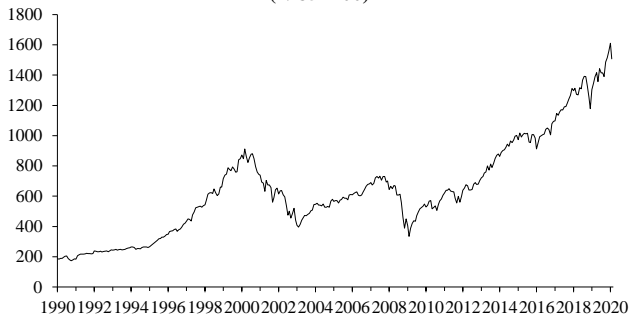


Japan : 3-Month Money Market Rate

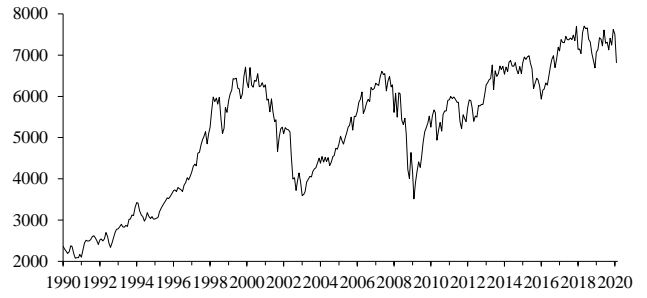


MAJOR EQUITY MARKETS

**U.S. : S & P 400 Industrial
(1985=100)**



**U.K. : FTSE-100 Index
(10 April 1962=100)**



Germany : DAX 30



**Japan : Tokyo S.E. New
(1985=100)**



EMERGING MARKETS

Anupam Rastogi

The Black Swan event — now officially called Covid-19, according to the World Health Organization — has gripped the world economy. With more than 80,000 people infected in China and nearly three thousand dead, factory output, consumer spending, tourism, and commodity prices have seen major drops in China. Infection has spread to 65 countries and any estimate at this stage is not possible. According to Michael Osterholm of University of Minnesota, the seeding of the virus may have taken place much before December 2019 when the first incidents of deaths due to an ‘unknown’ virus came to light. The impact of this would show up in a few months’ time as its symptoms are very similar to common cold and flu. The saving grace is that compared to the H1N1 (Swine Flu) virus it is not as deadly and it is far less contagious. It will come under control as an inoculation is discovered. Many pharma companies are working on its inoculation. For example, Remdesivir, a new antiviral drug by Gilead Sciences Inc. and inoculations are at various stages of development.

The virus has broken supply chains in the global manufacturing system. There are many electronic parts and products produced in Mainland China. The delay of Mainland workers going back to factories, following the lockdown of many Chinese cities, will affect the semiconductor, electronics, and smart devices production and shipments in many parts of the world. Our forecast of emerging countries is based on long-term impact of pandemic which is likely to come under control in six months’ time.

Central banks the world over are not keen to bank roll the financial stress caused by the virus as it is a supply shock and, it is widely believed that, monetary policy will be ineffective. However, central banks are keeping an accommodative stance.

India

India’s economy grew at 4.7% in the December quarter, its slowest rate in more than six years, as fears grew that the coronavirus outbreak may throw the global economy into a recession, further pulling down growth prospects in India. The December quarter showed a marginal improvement over Q2 and, hence, we are keeping FY20 growth projections at 5%. During the first nine months of this financial year (April–December 2019), the Indian economy grew 5.1%, against 6.3% in the same period of FY19. The economic slowdown in the December quarter was driven by a 5.2% contraction in investment demand. Private consumption picked up only marginally in the third quarter and grew at 5.9%.

India: BSE Sensitive



According to Shaktikanta Das, Governor of the Reserve Bank of India (RBI), the Bank will take some more time to arrive at more accurate conclusions, but coronavirus is definitely going to pull down global growth. The coronavirus remains the critical risk as India depends on China for both demand and supply of inputs. However, this is going to accelerate the process of shifting many assembly lines from China to India as India is luring many MNCs by giving them fiscal incentives.

The country’s fiscal deficit in the first 10 months of FY20 (April 2019–January 2020), at Rs9.85 trillion, stood at 128.5% of the government’s revised full-year target of Rs7.66 trillion. Markets have not reacted adversely to this news as they want more fiscal stimulus which the government is adamant to provide. The thinking in government is not to provide short-term temporary reliefs.

India’s inflation seems to have peaked in January and will probably ease in coming months, allowing the central bank room to resume interest rate reductions. Retail inflation surged to 7.6% in January from a year earlier, mainly on account of costlier fuel and elevated food prices. That’s the highest level since May 2014 when inflation was at 8.3%. Food prices, especially those of vegetables, are coming down, which will set the course for a deceleration in price-growth. Fuel prices also have been cut as crude oil prices have come down in international market. Inflation will ease to below 6% by March.

India’s Monetary Policy Committee decided to keep interest rates unchanged in the first week of February. The committee reiterated that its monetary policy stance remains ‘accommodative’ for as long as it is necessary to revive growth, but decided to maintain a status quo on policy rates amid elevated inflation.

While India’s direct trade linkage to China and Hong Kong is at 9% of total exports and 17% of total imports, supply chain disruptions and lower external demand would add to domestic issues and risk-off capital outflows could put pressure on emerging market currencies, although the

Reserve Bank of India (RBI) has been shoring up forex reserves. Notwithstanding the impact on trade, the decline in commodity prices will cushion the impact on the current account deficit, which is now expected to be around 1% of GDP in FY20.

During the first 10 months of the current fiscal year (April–January), exports have contracted 1.9%, while imports shrank 8.1%, leading to a trade deficit of \$133.3 billion. A lower trade deficit coupled with forex reserves of \$476 billion would support the rupee around 72 to a USD in coming months.

Stock markets declined sharply after the 2008–09 financial crisis. Overall, we do not see a precipitous fall for the rupee and the economic growth of India due to its dependence on domestic consumption.

	18–19	19–20	20–21	21–22	22–23
GDP (%p.a.)	6.8	5.0	6.0	6.5	7.0
WPI (%p.a.)	3.9	3.6	3.8	3.9	4.0
Current A/c(US\$ bill.)	-70.0	-52.0	-64.0	-65.0	-65.0
Rs./\$(nom.)	79.5	72.0	73.0	74.0	75.0

China

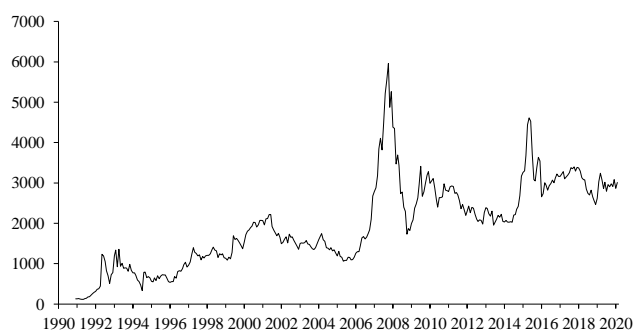
President Xi Jinping has played down the impact of the coronavirus outbreak on China’s economy, saying it is a temporary blow and would not stop China from reaching its goal this year of doubling GDP from 2010. This might turn out to be true as China’s GDP needs to grow only 5.5% to achieve the target. The world’s second largest economy faces mounting pressure due to the novel coronavirus outbreak, as factories stay closed and millions of consumers remain confined at home.

China’s first-quarter GDP growth could dip to zero or even enter negative territory after being beaten down by the Covid-19 outbreak. Based on the percentage of businesses that have resumed work, power usage, passenger flow, container throughput and other indexes, February’s economy is far worse than the estimated drop of 12%. A gradual return to work started February 20 as major manufacturers cranked up limited production. Yet most small- and medium-sized businesses are still struggling to get back on their feet. Not surprisingly, China’s manufacturing Purchasing Managers’ index fell to 35.7, the lowest on record. The International Monetary Fund has cut its growth outlook for China by 0.4% to 5.6%, but warned that it could be revised downwards.

China’s 2020 growth target was originally to be released during Premier Li Keqiang’s government work report at the National People’s Congress, but the March 5 annual parliamentary meeting is postponed due to the coronavirus outbreak.

The consumer price index (CPI) rose by 5.4% in January from a year earlier, up from a 4.5% gain in December. China’s producer price index, a measure of the prices manufacturers charge at the factory gate, rose marginally by

China: SSE Composite Index



Korea: Composite Index



0.1%. The rise of CPI was mainly due to the increased demand over the Lunar New Year and the impact of the virus, and also due to a lower base last year as the Chinese holiday was in February 2019. The prices are likely to continue to rise due to weak supply.

China’s currency is showing strength against peers, despite the country being most affected by the novel coronavirus epidemic. The yuan is approaching its strongest level since August versus a basket of 24 exchange rates, according to data compiled by Bloomberg.

While the yuan sank when China’s financial markets reopened after an extended holiday break in early February, the currency has stabilized in recent days. Government stimulus has supported the yuan at a time when concern over the global spread of the disease is unnerving investors around the world. The yuan has not fallen much below the 7 per dollar mark in February, but any clean break below the symbolic threshold could point to further downside toward 7.20 this year. We expect authorities to allow yuan to slide as normalcy returns in the product market.

	18	19	20	21	22
GDP (%p.a.)	6.6	5.7	5.5	5.4	5.2
Inflation (%p.a.)	2.2	2.3	2.3	2.0	1.8
Trade Balance(US\$ bill.)	50.0	40.0	40.0	20.0	0.0
Rmb/\$(nom.)	6.8	7.1	7.2	7.2	7.2

South Korea

The central bank downgraded this year’s economic growth forecast to 2.1% from 2.3%. It also raised the ceiling for its

special loans programme by 5 trillion won (\$4.2 billion) to 30 trillion won, to support retail and tourism. We expect GDP growth to be slightly lower than this at 2% in 2020 and improving marginally to 2.2% in 2021.

We expect CPI inflation to have dropped in February on a decline in oil prices and depressed consumer sentiment due to the virus outbreak. Although the coronavirus impact likely pushed up prices of agricultural products and daily necessities, we expect it to have driven down prices in the services industry by a much larger extent. Going forward, possible supply shocks in certain industries due to the coronavirus may have an adverse impact on inflation. We expect inflation to be marginally above 1% in 2020.

South Korea kept interest rates unchanged, dashing expectations for a cut even as Bank of Korea (BOK), the central bank, downgraded the growth outlook amid mounting fears that the coronavirus outbreak could derail Asia's fourth-largest economy. The bank acknowledged threats from a prolonged outbreak, and the governor Lee Ju-yeol stressed the limits of monetary policy and called for government spending and more targeted measures to deal with the slowdown.

The surprise decision not to ease shows policymakers are taking a conservative approach in dealing with the crisis due to limited stimulus options and concerns about financial stability and a property bubble.

South Korea's early trade data suggest that the coronavirus epidemic has started to disrupt the region's supply chains, as many Chinese factories remain shut, complicating deliveries of parts and components essential to the industrial world. Daily average shipments fell 9.3% during the first twenty days of February from a year earlier, according to the customs data. Total shipments to China, South Korea's biggest trade partner, fell 3.7% despite the period having more working days than last year. Imports from China plunged 19%. South Korea's overall exports rose 12% during February 1–20, boosted by calendar distortions.

We expect the trade surplus to widen to USD 3bn, stronger than the three-month average of ~USD 1.942bn. South Korea's won depreciated to the lowest in almost three years as traders dumped riskier assets amid growing concern about the spread of the coronavirus.

	18	19	20	21	22
GDP (%p.a.)	2.7	1.8	2.0	2.2	2.2
Inflation (%p.a.)	1.5	0.4	1.1	1.2	1.2
Current A/c(US\$ bill.)	86.0	80.0	78.0	70.0	70.0
Won/\$(nom.)	1130	1200	1230	1260	1260

Taiwan

Many Taiwanese electronic component makers have built manufacturing clusters in Hubei and Guangdong, the two provinces hit hardest by the epidemic, and restrictions on the movement of people is continuing in these two provinces.

Taiwan: Weighted TAIEX Price Index



The lock down in China has led to disruptions in raw material supplies from China to Taiwan, which would hurt many industries in Taiwan, such as the semiconductor, information and communications technology (ICT), biotech and flat panel sectors.

Last month, the Chinese National Federation of Industries (CNFI), one of the most important business groups in Taiwan, warned that the electronics sector has been severely affected by the lockdowns of major Chinese cities.

We forecast Taiwan GDP growth will be 1% for 2020, because the damage from Covid-19 will be in the first quarter, and expects a recovery starting from the second quarter. A meaningful recovery is expected in the third quarter. Uncertainty about the timing of the resumption of work at Mainland China's factories will affect Taiwan's production and exports. A weaker currency can't compensate for the contraction in exports and consumption coupons post-epidemic are unlikely to compensate for the loss in retail sales.

This disruption will affect Taiwan's production, imports and exports, and therefore investment into Taiwan. Consumption will be affected only to a limited extent as Taiwan had very few Mainland visitors even before the outbreak.

With production expected to fall, exports and imports will decline too, hurting yet more sectors such as trading and logistics. The government is in the process of implementing a stimulus package. But it is difficult to see it offsetting much of the damage caused by Covid-19 because of linkages of the supply chains between Taiwan and Mainland China factories. If Mainland China factories continue to delay the resumption of work, that will continue to hit Taiwan's economy via production and exports. And the timing of such is uncertain. Further, the peak tourism period in spring will be missed, and consumption coupons will not be able to make up the loss of revenue in the tourism and airline industries.

Capital continues to flow into the Taiwan stock market, fuelling the strength of the Taiwan dollar, but this should be temporary as companies may well be affected by broken

supply chains. We expect the USD/TWD to end at 31 in 2020, unchanged from our previous forecast.

	18	19	20	21	22
GDP (% p.a.)	2.6	2.0	1.0	2.4	2.2
Inflation (% p.a.)	1.2	1.0	1.0	1.0	1.0
Current A/c(US\$ bill.)	68.0	70.0	71.0	70.0	60.0
NT\$/\$(nom.)	29.8	31.0	31.0	31.0	31.0

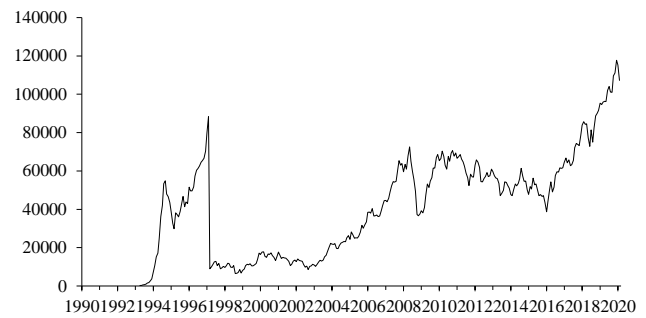
Brazil

Brazil's gross domestic product (GDP) in 2020 will be less than 2% as the impact of the novel coronavirus epidemic unfolds in the country. China is Brazil's major trade partner and the country's supply chain will be affected. Economy Minister Paulo Guedes is confident of 2% growth rate of GDP.

A lower-than-expected gross domestic product expansion would lead to reduced inflationary pressure. We expect 2020 inflation forecast to be 3.2% and next year's 3.6%, both moving further below the central bank's inflation targets of 4% for 2020 and 3.75% for 2021.

In the first week of February, the central bank cut interest rates to a new low of 4.25% and signalled that that would be the last in the cycle. The slowdown in inflation was largely driven by food and beverage prices, and meat prices in particular. This may open some space for the central bank to cut the key interest rate further. President Jair Bolsonaro's ambitious agenda of privatizations and reforms in a bid to jumpstart economic activity is running into heavy weather. Fresh tensions between congress and the presidency threaten to hurt the approval of the economic reforms. The use of fiscal stimulus to boost growth has been ruled out by the Economy Ministry because it's seen as counterproductive due to its financial costs.

Brazil: Bovespa



Brazil posted a trade deficit of \$1.745 billion in January, the first shortfall for the month of January in five years and an indication that trade might continue to be a drag on overall economic growth.

A smaller annual trade surplus than last year's, which itself was the smallest surplus since 2015, is expected.

The Brazilian real reached a new low against the dollar, taking its losses this year to 11% as the relentless selling overwhelmed the central bank. It is suggested that investors sold the real as a hedge against their exposure to the Brazilian stock market. In our opinion it is due to widening current account deficit, which will keep the currency under pressure even if virus fears fade.

Brazil's real is trading below 4.50 per dollar now.

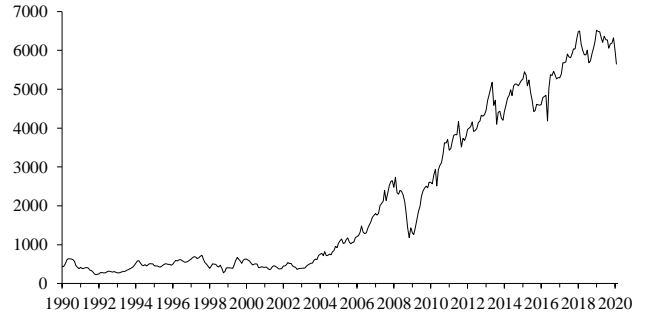
	18	19	20	21	22
GDP (%p.a.)	1.1	0.8	1.9	2.5	2.5
Inflation (%p.a.)	3.8	4.3	3.2	3.6	4.0
Current A/c(US\$ bill.)	-14.6	-36.0	-40.0	-40.0	-36.0
Real/\$(nom.)	3.8	4.2	4.5	4.6	4.6

Other Emerging Markets

Hong Kong: FT-Actuaries



Indonesia: Jakarta Composite



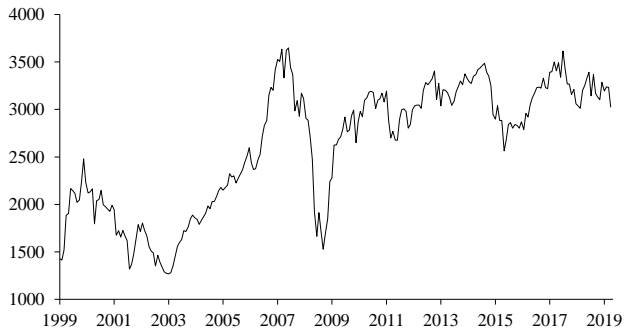
Malaysia: FT-Actuaries (US\$ Index)



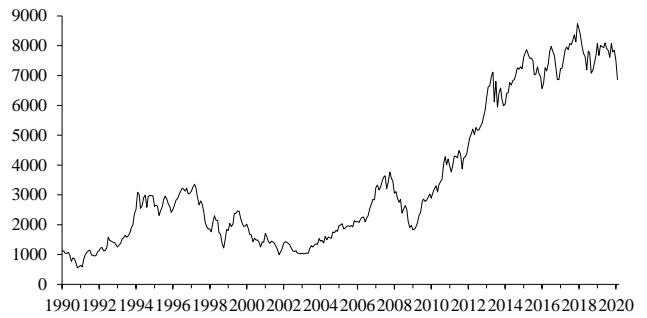
Thailand: Composite Index



Singapore: Straits Times Index

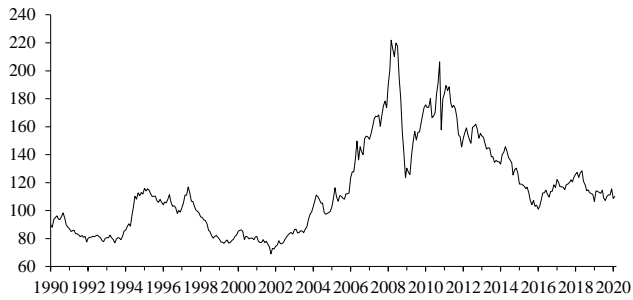


Philippines: Manila Composite

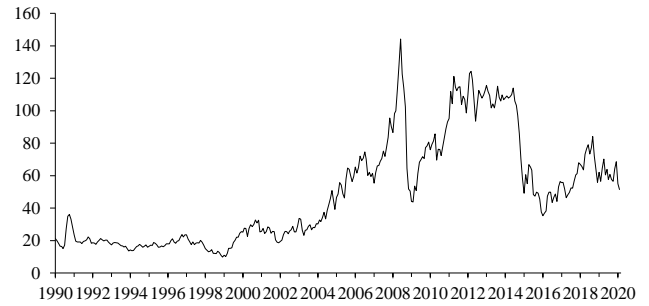


COMMODITY MARKETS

Commodity Price Index (Dollar)
(Economist, 2015 = 100)



Oil Price: North Sea Brent (in Dollars)



Commodity Price Index (Sterling)
(Economist, 2015 = 100)



Gold Price (in Dollars)



Commodity Price Index (Euro)
(Economist, 2015 = 100)



UK FORECAST DETAIL

Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation % ¹ (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100) ²	Real Exchange Rate ³	Real 3 Month Int. Rates % ⁴	Inflation (RPIX)	Real Short Dated Rate of Interest ⁵
2018	2.5	1.0	0.7	78.6	76.9	-1.3	3.3	-1.0
2019	1.7	0.8	0.8	78.3	75.9	-0.9	2.5	-1.0
2020	1.9	1.3	1.1	79.6	78.0	-1.1	2.6	-0.7
2021	2.0	2.4	1.9	79.4	78.2	-1.0	2.8	0.5
2022	2.0	3.3	2.4	79.3	78.4	0.1	2.8	1.3
2023	2.0	3.4	3.1	79.1	78.6	1.0	2.7	1.4
2019:1	1.8	0.9	0.9	79.0	77.4	-0.5	2.4	-0.9
2019:2	2.0	0.7	0.8	78.6	76.0	-0.5	3.0	-1.1
2019:3	1.8	0.4	0.8	76.0	72.7	-1.4	3.0	-1.4
2019:4	1.5	1.1	0.8	79.4	77.4	-1.3	1.8	-0.8
2020:1	1.8	1.1	1.0	79.7	78.1	-1.0	2.4	-0.9
2020:2	1.9	1.2	1.1	79.7	78.0	-1.0	2.6	-0.8
2020:3	2.0	1.3	1.1	79.6	77.9	-1.0	2.7	-0.7
2020:4	2.0	1.7	1.2	79.3	77.8	-1.5	2.8	-0.3
2021:1	2.1	2.3	1.8	79.4	78.3	-0.8	2.9	0.3
2021:2	2.0	2.5	1.9	79.6	78.3	-0.9	2.7	0.5
2021:3	2.0	2.4	2.0	79.4	78.1	-1.2	2.7	0.4
2021:4	2.0	2.5	2.0	79.2	78.0	-1.0	2.8	0.5

¹ Consumer's Expenditure Deflator

² Sterling Effective Exchange Rate Bank of England

³ Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate

⁴ Treasury Bill Rate less one year forecast of inflation

⁵ Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100) ¹	Wage Growth ²	Unemployment (New Basis) Percent ³	Millions	Real Wage Rate ⁴ (1990=100)
2018	266.6	3.1	4.1	0.9	142.8
2019	275.7	3.7	3.9	0.9	145.2
2020	284.4	3.0	3.4	0.8	146.7
2021	293.2	3.2	3.3	0.7	148.4
2022	302.3	3.1	3.1	0.7	150.0
2023	302.3	3.2	2.9	0.7	150.0
2019:1	273.4	3.6	4.1	1.0	145.1
2019:2	273.5	4.4	4.2	1.1	144.9
2019:3	275.5	3.8	4.1	1.1	146.2
2019:4	277.8	2.8	3.4	0.8	145.9
2020:1	281.4	2.9	3.4	0.8	146.7
2020:2	281.7	3.0	3.4	0.8	146.5
2020:3	284.1	3.1	3.5	0.9	147.8
2020:4	286.4	3.1	3.4	0.8	147.5
2021:1	290.4	3.2	3.3	0.8	148.4
2021:2	290.8	3.2	3.3	0.8	148.3
2021:3	293.2	3.2	3.2	0.8	149.5
2021:4	295.1	3.0	3.2	0.8	149.0

¹ Whole Economy

² Average Earnings\

³ Wholly unemployed excluding school leavers as a percentage of employed and unemployed, self employed and HM Forces

⁴ Wage rate deflated by CPI

Estimates and Projections of the Gross Domestic Product¹ (£ Million 1990 Prices)

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption ²	Private Sector Gross Investment Expenditure ³	Public Authority Expenditure ⁴	Net Exports ⁵	AFC
2018	165.5	792730.9	445721.1	307723.0	201029.6	-41308.9	120433.9
2019	167.7	803124.4	449022.2	304863.6	205398.3	-62992.2	93167.5
2020	170.9	818311.1	455103.9	281835.4	206630.2	-38598.5	86659.9
2021	174.1	833868.2	461476.0	285538.7	207867.7	-32824.5	88189.7
2022	177.7	850987.6	467475.5	293108.1	209117.4	-29127.6	89585.8
2023	181.5	869067.2	474018.9	302863.7	210372.5	-26816.7	91371.2
2018/17	1.4		1.0	2.3	0.2		-4.6
2019/18	1.3		0.7	-0.7	2.2		-12.3
2020/19	1.9		1.4	-7.1	0.6		4.1
2021/20	1.9		1.4	1.3	0.6		1.5
2022/21	2.1		1.3	2.7	0.6		1.8
2023/22	2.1		1.4	3.3	0.6		2.1
2019:1	167.5	200481.1	111589.5	83278.3	52683.0	-28452.8	18616.9
2019:2	167.1	200109.6	112220.4	81082.1	50775.9	-13738.5	30230.3
2019:3	167.8	200943.7	113062.0	72473.6	51076.1	-12057.3	23610.7
2019:4	168.4	201589.9	112150.2	68029.5	50863.3	-8743.5	20709.6
2020:1	170.1	203686.3	113060.8	75399.9	52998.5	-16219.9	21553.0
2020:2	170.6	204201.6	113679.3	67657.8	51080.7	-6510.3	21705.9
2020:3	170.9	204663.9	114754.0	70484.3	51382.5	-10284.7	21672.2
2020:4	171.9	205759.3	113609.8	68293.5	51168.4	-5583.6	21728.8
2021:1	173.0	207130.3	114529.7	77069.6	53314.3	-15585.6	22197.7
2021:2	174.0	208357.8	115270.8	68889.7	51387.1	-5257.5	21932.3
2021:3	174.4	208747.2	116475.2	70503.5	51690.8	-7856.1	22066.2
2021:4	175.1	209632.9	115200.4	69075.9	51475.5	-4125.3	21993.6

¹ GDP at factor cost. Expenditure measure; seasonally adjusted

² Consumers expenditure less expenditure on durables and housing

³ Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building

⁴ General government current and capital expenditure including stock building

⁵ Exports of goods and services less imports of goods and services

Financial Forecast

	PSBR/GDP % ¹	GDP ¹ (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2018	1.9	2092.4	40.8	23.4	-81.3
2019	2.0	2145.4	43.2	25.5	-93.6
2020	0.9	2224.4	20.4	28.0	-42.0
2021	0.3	2315.2	8.4	31.4	-30.0
2022	0.2	2411.0	4.4	35.0	-20.5
2023	0.0	2512.4	0.7	37.0	-14.4
2019:1	-3.6	520.1	-18.8	6.3	-33.8
2019:2	5.5	532.3	29.4	6.3	-26.8
2019:3	2.0	531.3	10.9	6.3	-15.3
2019:4	-2.7	537.5	-14.5	6.3	-17.6
2020:1	3.2	544.3	17.4	6.6	-8.4
2020:2	0.5	548.8	2.6	6.7	-11.6
2020:3	-0.6	552.5	-3.3	6.7	-10.9
2020:4	-0.9	558.7	-4.9	6.9	-11.1
2021:1	4.6	564.4	26.0	7.6	-7.1
2021:2	-0.1	570.7	-0.3	7.7	-9.2
2021:3	-1.0	574.5	-6.0	7.8	-5.8
2021:4	-1.3	580.9	-7.8	7.8	-7.9

¹ GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2017	2018	2019	2020	2021	2022
U.S.A.	2.2	2.9	2.3	1.9	1.9	2.0
U.K.	1.8	1.4	1.3	1.9	1.9	2.1
Japan	2.2	0.3	1.0	0.3	0.8	1.0
Germany	2.5	1.5	0.5	0.9	1.1	1.2
France	2.4	1.7	1.3	1.2	1.3	1.4
Italy	1.7	0.8	0.2	0.4	0.5	0.6

Growth Of Consumer Prices

	2017	2018	2019	2020	2021	2022
U.S.A.	2.1	2.4	1.8	2.0	2.0	2.0
U.K.	2.6	2.5	1.7	1.9	2.0	2.0
Japan	0.5	1.0	0.6	0.7	0.5	0.5
Germany	1.5	1.8	1.4	1.4	1.5	1.7
France	1.0	1.9	1.2	1.2	1.3	1.5
Italy	1.2	1.2	0.7	0.9	1.0	1.3

Real Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	-1.5	0.1	0.1	-0.3	0.0	0.0
U.K.	-1.7	-1.0	-0.9	-1.0	-0.1	0.4
Japan	-1.0	-0.7	-0.8	-0.5	-0.4	-0.4
Germany	-2.1	-1.7	-1.8	-1.9	-2.0	-2.0
France	-2.2	-1.5	-1.7	-1.7	-1.8	-1.9
Italy	-1.5	-1.0	-1.4	-1.4	-1.6	-1.7

Nominal Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	0.9	1.9	2.1	1.7	2.0	2.0
U.K.	0.4	0.7	0.8	1.1	1.9	2.4
Japan	0.0	-0.1	-0.1	0.0	0.1	0.1
Germany	-0.3	-0.3	-0.4	-0.4	-0.3	-0.1
France	-0.3	-0.3	-0.5	-0.4	-0.3	-0.1
Italy	-0.3	-0.3	-0.5	-0.4	-0.3	-0.1

Real Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	0.4	0.9	0.1	0.3	0.8	1.0
U.K.	-1.5	-0.9	-1.2	-0.7	0.4	1.4
Japan	-0.6	-0.5	-0.6	-0.6	-0.5	-0.4
Germany	-1.3	-1.1	-1.9	-2.1	-1.9	-1.7
France	-0.6	-0.5	-1.2	-1.5	-1.4	-1.3
Italy	1.1	1.6	0.9	0.1	0.1	0.2

Nominal Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	2.4	2.9	2.1	2.3	2.8	3.0
U.K.	0.6	1.0	0.8	1.3	2.4	3.4
Japan	0.1	0.1	-0.1	-0.1	0.0	0.1
Germany	0.3	0.4	-0.3	-0.4	-0.2	0.0
France	0.8	0.8	0.2	0.0	0.1	0.2
Italy	2.1	2.6	2.1	1.3	1.4	1.5

Index Of Real Exchange Rate(2000=100)¹

	2017	2018	2019	2020	2021	2022
U.S.A.	94.5	93.6	94.0	94.2	94.1	94.4
U.K.	75.5	76.9	75.9	78.0	78.2	78.4
Japan	58.3	57.8	56.3	54.2	51.4	48.0
Germany	94.3	96.5	95.6	94.1	92.2	90.0
France	95.3	97.4	96.3	94.5	92.1	89.4
Italy	101.2	102.8	104.5	105.2	103.8	101.7

¹ The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation in the real exchange rate.

Nominal Exchange Rate

(Number of Units of Local Currency To \$1)

	2017	2018	2019	2020	2021	2022
U.S.A. ¹	101.68	99.38	102.74	103.56	103.04	103.56
U.K.	1.30	1.33	1.28	1.31	1.33	1.35
Japan	112.18	110.00	109.10	111.20	111.50	111.30
Eurozone	0.87	0.85	0.89	0.88	0.89	0.88

¹ The series for the USA is a trade weighted index (1990=100); the series for the UK is \$ per £

* Forecasts based on the Liverpool World Model