

LIVERPOOL INVESTMENT LETTER

September 2022



Cardiff Business School

Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics



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.

The Liverpool Research Group in Economics is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. The Group is now mainly based in Cardiff Business School, Cardiff University, and is indebted to the School and to the Hodge Foundation for their support. The Group's activities contribute to the programmes being pursued by the Julian Hodge Institute of Applied Macroeconomics. This Liverpool Investment Letter is typeset by David Meenagh and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

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DEALING WITH THE COST OF LIVING CRISIS

The focus of public comment in the UK, as elsewhere, is on the sharp rise in the cost of living due to the spiking cost of gas. This crisis arises out of the interaction of inflation with tax and benefits. According to usual procedures, income tax thresholds and benefits (i.e. tax credits) would be indexed to inflation so that real income tax is only paid on real wages and real benefits are paid to households based on their real incomes. However, in the present situation this is not happening as intended, for two reasons. One is that in the last Budget it was decided not to index income tax thresholds. The other is that inflation is moving rapidly, so that the usual lagged inflation used to index all these things is a poor approximation to the current inflation rate.

On the failure to index tax thresholds to the high inflation now coming through, IFS estimates are that this fiscal year revenues will be £30 billion higher, about 1.2% of GDP. Our own estimates of the full effect of 7.7% average inflation this year on income tax revenue is rather higher, about £50 billion, 2% of GDP. With Universal Credit and other ('legacy') benefits running at £65 billion approximately pre-pandemic, the cost of fully indexing them this year would be about £5 billion. Public pension costs are £116 billion in 2021/22; they are due to rise by 3.1% this year but with inflation at 7.7% this would need to be upgraded by another 4.6% at a cost of about another £5 billion.

Rectifying matters for income taxpayers can be achieved via a cut in VAT which can be implemented immediately during this fiscal year; given the estimates above of the cost to households of non-indexation of tax thresholds — about £50 billion, or 2% of GDP — a VAT cut of 6% would return about £45 billion at an annual rate, roughly reversing this tax rise from the non-indexation of tax thresholds. Next year it can be carried forward and indexation restored for next year's inflation. This would assist ordinary households in the cost of living squeeze by keeping their real tax take constant.

In addition to this, there would need to be a speeding up of assistance to poor households, through Universal Credit — at a cost as above of about £5 billion. Essentially, UC needs to be regularly topped up in real time according to the changing inflation rate. By next year, the lagged indexation system would roll that up into the new going rates of UC. Finally, pensions would be raised in line with current inflation, at a further cost of £5 billion. Notice again that all these measures do is keep real benefits and pensions constant. There is no extra real cost to the public purse.

Notice also that in all this there is no 'policy for business costs'. A lot has been made of the bankruptcy threat to businesses. But businesses are competing in the market, setting prices equal to costs, or higher if possible to make a profit: competition tends to force prices down to costs. As costs rise, energy or other, businesses will be forced to pass these on by market forces. It would be wrong to subsidise

Table 1: Summary of Forecast

	2018	2019	2020	2021	2022	2023	2024
GDP Growth ¹	1.3	1.4	-9.4	7.5	4.8	2.2	2.8
Inflation CPI	2.4	1.7	1.0	2.5	8.2	5.0	3.2
Wage Growth	3.0	3.5	1.6	5.8	5.9	4.1	3.5
Survey Unemployment	4.1	3.8	4.5	4.5	3.7	3.5	2.8
Exchange Rate ²	78.6	78.3	78.2	81.5	80.2	78.3	77.8
3 Month Interest Rate	0.4	0.8	0.2	0.1	1.7	2.6	2.9
5 Year Interest Rate	1.0	0.6	0.1	0.4	2.3	3.1	3.0
Current Balance (£bn)	-82.9	-89.1	-53.8	-60.0	-80.2	-24.2	-14.7
PSBR (£bn)	39.3	56.9	309.4	144.1	125.5	124.4	30.8

¹Expenditure estimate at factor cost

²Sterling effective exchange rate, Bank of England Index (2005 = 100)

particular firms or sectors. Of course, firms worry that they will lose customers by raising prices; this is how the market restrains inflation. However, in a general inflation firms' competitors will also be raising prices, so they will not lose many customers in the event. Businesses should not expect government help during big inflations; nor have they ever received it in the UK, even in 1975 when inflation under a Labour government reached 25%.

Finally, one should not lose sight of the cost to the nation of gas imports through higher gas prices and a worsening terms of trade. We need to encourage investment in all domestic sources of gas, to reduce this cost. These sources are the North Sea and inland fracking. Residents of fracking areas are unhappy about fracking; but they should be given compensation which makes it worth their while to support it.

In spite of these economic arguments for an inflation compensation policy, the government has opted on political grounds for the simpler policy of an energy price freeze, with an element of short term help to businesses. The energy production agenda above has been endorsed. From a political viewpoint, this looks like the best approach in a difficult situation, which we evaluate in what follows..

The current fiscal policy arithmetic with the energy price freeze

A new front has opened up against the Truss policy agenda, led by the usual suspects like the FT and their establishment allies. Their argument is that a 'sterling and bond market crisis' is being provoked by the higher borrowing in prospect from the energy price freeze and the intended reversal of the NIC rises and the cancellation of the Corporation Tax rise.

There is of course no such 'crisis' since neither sterling nor bond interest rates are objectives of policy. We have not had a fixed exchange rate since our foolishly mistaken episode inside the European Exchange Rate Mechanism came to its inevitable end in 1992. As for the long term interest rates we have been paying on government bonds, they are still remarkably low in real terms, reflecting real rates close to zero in world markets. In fact our ten-year real rates on index-linked bonds are still negative.

Both sterling and real interest rates are market prices that reflect our key policies set to maximise the welfare of UK citizens. These are therefore of course aiming to maximise growth, subject first to the inflation target to which monetary policy is committed and second to the only valid constraint on the government budget, which is the long term one of solvency. In practical terms that means our debt/GDP ratio should be tending downwards to a sustainable level over the long term.

We can reasonably ask what market outcomes we might expect these policies to produce for sterling and interest rates. We will come to that in a moment. But first let us verify that the Truss agenda satisfies solvency, a point seemingly queried by the critics above.

Begin with the extra borrowing in prospect in a worst case scenario. The price freeze on current gas price projections could cost up to £150 billion over two years, or £75 billion a year. Then add in the rollback of tax increases and allow for the extra effects of inflation on debt interest minus its effects on income tax (for which the price freeze is some compensation). All this could push public borrowing as high as 5% of GDP over this fiscal year and next- driving up debt by a total 10% of GDP. However, inflation by the end of 2023/24 will have totalled about 15% on our forecasts and this will independently reduce the real value of debt by about 12% of GDP — a key inflation effect never mentioned by these critics. Hence by end of fiscal 2023 the debt/GDP ratio (defined as usual to exclude Bank and publicly owned banks' balance sheets) would actually have fallen slightly from its current level of 82% to around 80%, illustrating the powerful effect of inflation in *reducing* real debt. If we can then restore growth even just to its 2% trend from 1990 to 2010, our long term projections based on our modelling research show that on current spending plans the ratio should fall steadily to around 50% by 2035.

So solvency looks assured on current plans. Of course, there is a big margin of error around all this arithmetic, which is why if the numbers turn out to be worse the government is committed to trimming its spending to maintain a downward debt ratio trend. Meanwhile we are seeing the start of supply-

side tax and regulation reforms raising growth and a fiscal easing that should stop recession.

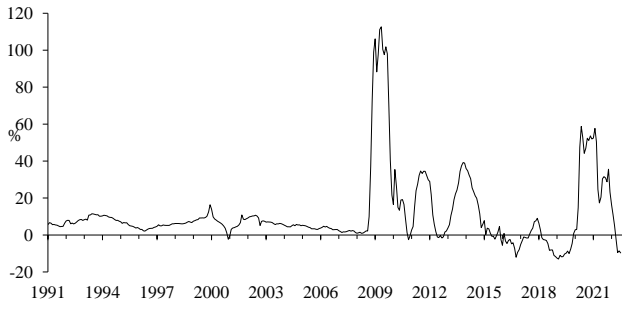
Now turn to the outlook and those market prices. First, how will the Bank manage its task of reducing inflation? It is now clear that most commodity prices other than gas are falling back from their peaks; supply bottlenecks have eased and world growth is slowing sharply, especially in China. If the Ukraine war ends soon, as looks more probable by the day, gas and key food prices will fall sharply; besides lowering inflation, that will dramatically cut the cost of the price freeze.

The Bank needs to finish the job and restore inflation to its 2% target; it has raised interest rates to nearly 2% and now has little recession excuse not to raise them further, with fiscal policy supporting the economy and increasing supply potential. Its credibility is therefore stronger, with hawks dominating doves. This will reduce expected inflation and so also bring inflation down faster.

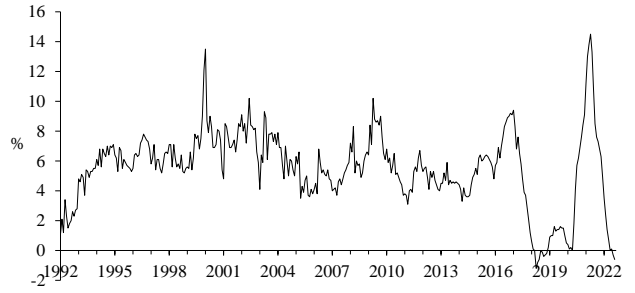
This reveals that via expectations fiscal policy is a help not a hindrance to getting inflation down, contrary to much economists' comment. Indeed, the effects of borrowing on inflation are not merely via the channel of increased demand, as in their simplistic account. Besides this expectations channel, it also reduces inflation via the increased supply and reduced wage pressures produced by tax cuts and income transfers like the price freeze. On balance fiscal policy is driving inflation down.

With this expected profile for interest rates, long term gilt rates will match it and are therefore likely to stay around the 3% mark. As for the exchange rate, two forces are at work. Short term market arbitrage will move it to compensate for interest differentials against the dollar and the euro, so if the Fed and the ECB raise rates more than the Bank, as seems likely, it will fall against both. The long term factor is growth: the higher we manage to achieve in growth the more competitiveness we will need to sell our higher GDP as exports abroad to match rising imports. This will push sterling lower, as part of the necessary market process. None of this is remotely alarming. Market forces must be allowed to work to support our policy objectives.

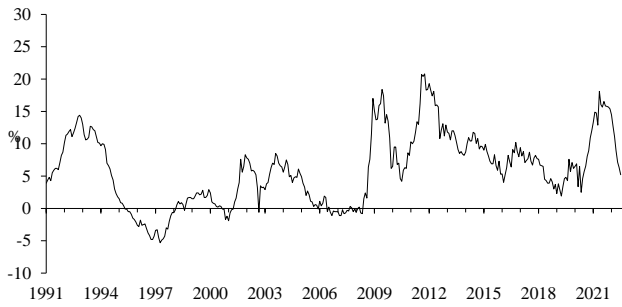
U.S.: Growth in M0 (Yr - on - Yr)



UK: Notes and Coins in Circulation Growth



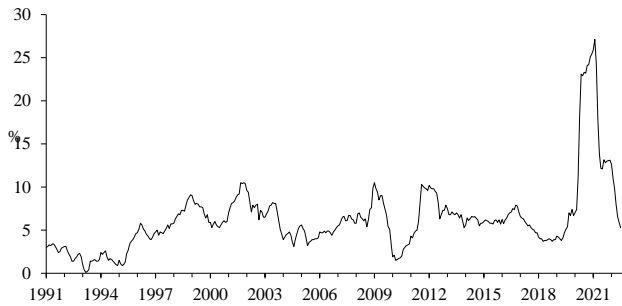
U.S.: Growth in M1 (Yr - on - Yr)



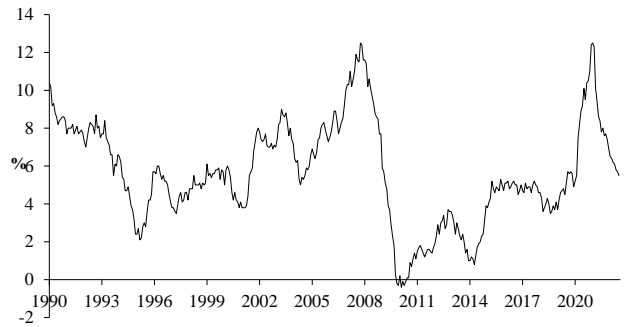
UK: M4 Growth



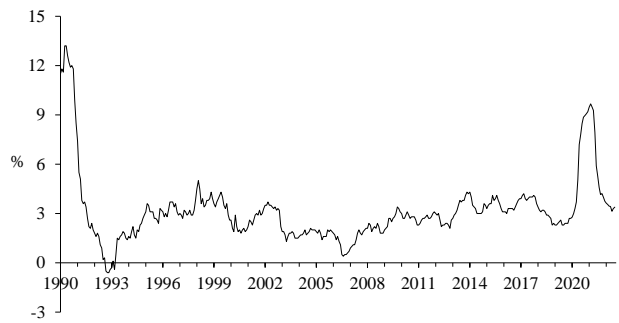
U.S.: Growth in M2 (Yr - on - Yr)



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japan's Inflation Rises

Recent government data revealed a 2.6% jump in core consumer price index (CPI) in Tokyo in August from a year earlier — after a 2.4% rise in July — marking the fastest pace of gain in about eight years, fresh evidence of inflationary pressures from higher energy and food prices aggravated by a weak yen. Tokyo has seen core consumer inflation accelerating for the 12th straight month. Stripping away the effects of a consumption tax hike, the rise is the biggest since June 1992, the Ministry of Internal Affairs and Communications said.

By item, energy prices surged 25.6% from a year ago. Excluding perishables, food prices gained 3.8%, and more price hikes are expected in the coming months as Japanese companies plan to pass on higher costs, economists say. The recent rise in core consumer inflation is partly because the year-on-year effect of sharply lower mobile data fees has begun to fall out of the data.

Overall, the nationwide core CPI gained 2.4% in July, marking the sharpest rise in seven and a half years. However, data revealed that the pace of gain in inflation has varied from region to region due partly to differences in the weight applied to items based on such factors as the value and frequency of purchases. Those in the northeastern region of Tohoku and Hokkaido — areas where energy consumption is high due to low winter temperatures — have seen bigger gains in the core CPI than those in the west, according to the government data for July. The city of Akita reported the biggest gain of 3.8%, while the city of Wakayama in western Japan saw the lowest rise of 1.5%. “The effect of higher gasoline prices is felt more in areas where access to public transport is limited, and cars are the main means of transportation,” said Naoko Ogata, a senior economist at the Japan Research Institute, adding that retailers, such as supermarkets, are more likely to raise prices in thinly populated areas.

Some economists expect the core CPI, excluding volatile fresh food items, across the nation to rise over 3% before year's end. The figure in Tokyo is already above the Bank of Japan's 2% target for the fourth straight month, and is seen as a leading indicator of what to expect nationwide. Despite that, the rising inflationary trend is unlikely to change the BOJ's stance of keeping its ultralow rate policy anytime soon, given that its board members believe the recent bout of commodity inflation will only be temporary and monetary easing is needed to support the economy of the resource-scarce nation facing downside risks.

Indeed, according to economists surveyed by Bloomberg Bank of Japan (BOJ) Governor Haruhiko Kuroda is unlikely to move toward normalization in the final months of his term, even if inflation hits 3%, though a prolonged spell at that level would eventually prompt change.

16 of 19 analysts said that a further acceleration to 3%, the highest since 1991 excluding tax-hike years, wouldn't increase the likelihood of policy change before Kuroda's term ends in April. That's because economists say inflation needs to remain at 3% or more for at least half a year before a policy shift can happen. To fulfil that condition before Kuroda's final policy meeting in early March, inflation would need to hit that level this month, and stay there through January.

The results underscore expert views that the governor won't risk giving up the chance for what he considers sustainable, long-term inflation with pre-emptive action. This follows his decadelong efforts at unprecedented monetary easing, and his continued argument that an increase in wages is also needed to generate a positive growth cycle. “There's a higher likelihood of a policy shift if core-CPI is at 2% in April 2023, rather than 3% by the end of the year. If prices don't keep rising from February onward, the inflation rate will quickly start losing momentum. For core-CPI to be at 2% in April, firms will need to have changed their price-setting behaviour,” Bloomberg economist Yuki Masujima said. Still, inflation at 3% would deepen the communications challenge Kuroda faces as he tries to see out his time with ultralow rates. And it might trigger fresh pressure on Japan's bond market, still fragile after a speculative attack was quashed by the BOJ in June.

The BOJ's dovish stance is in stark contrast with its global peers, including the US Federal Reserve and the European Central Bank, which have already been tightening their policies to tame soaring inflation. BOJ board member Toyoaki Nakamura said recently now is not the right time for the BOJ to join the global “rate-hike competition”, adding that the central bank will spur wage growth by persisting with monetary easing. However, Kuroda last month said he has “absolutely” no intention at all to tighten policy as current inflation is mainly driven by energy and commodity prices and further wage growth is needed to make gains sustainable. Wage increases in Japan have trailed inflation in the latest three months of data. In any case, it seems that the central bank is under pressure.

MARKET DEVELOPMENTS

Having become Prime Minister, as long as Liz Truss brings in her plans for reversing the rise in NICs and cancelling the rise in Corporation tax, fiscal policy will be mildly stimulative and recession should be fended off. Monetary policy is already tight and with commodity prices

starting to fall, inflation in 2023 should fall back, implying an interest rate peak of about 3%. With further taxcuts likely the economy should recover to a faster growth rate. This will favour equities.

Table 1: Market Developments

	Market Levels		Prediction for Aug/Sep 2023	
	Aug 08	Sep 08	Previous Letter	Current View
Share Indices				
UK (FT 100)	7440	7262	11174	10908
US (S&P 500)	4117	3997	5825	5656
Germany (DAX 30)	13574	12904	22573	21460
Japan (Tokyo New)	1947	1930	2619	2596
Bond Yields (government)				
UK	1.96	3.07	3.50	3.50
US	2.77	3.28	2.80	2.80
Germany	0.91	1.71	0.80	0.80
Japan	0.17	0.25	0.20	0.20
UK Index Linked	-1.04	-0.36	1.00	1.00
Exchange Rates				
UK (\$ per £)	1.21	1.15	1.28	1.28
UK (trade weighted)	79.58	77.13	78.4	78.4
US (trade weighted)	107.83	110.35	100.5	100.5
Euro per \$	0.98	1.00	0.95	0.95
Euro per £	1.19	1.15	1.22	1.22
Japan (Yen per \$)	135.35	143.98	120.5	120.5
Short Term Interest Rates				
UK	0.63	0.63	2.50	2.50
US	2.70	2.76	2.40	2.40
Euro	0.17	0.54	0.20	0.20
Japan	-0.05	0.05	0.10	0.10

Table 2: Prospective Yields¹

Equities: Contribution to £ yield of:						
	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	2.10	2.2	4.0	44.00		52.30
US	2.00	2.3	3.2	36.00	-11.41	32.09
Germany	2.10	2.5	2.8	61.00	-5.38	63.02
Japan	1.90	1.8	0.7	32.00	6.75	43.15
UK indexed ²	-0.36		4.0	16.00		19.65
Hong Kong ³	2.60	4.0	3.2	-7.00	-11.41	-8.61
Malaysia	3.30	5.4	3.2	73.00	-11.41	73.49
Singapore	3.50	3.0	3.2	37.00	-11.41	35.29
India	1.40	6.4	3.2	32.00	-11.41	31.69
Korea	1.10	2.3	3.2	-2.00	-11.41	-6.71
Indonesia	2.20	5.3	3.2	49.00	-11.41	48.29
Taiwan	2.80	3.0	3.2	42.00	-11.41	39.59
Thailand	3.20	4.0	3.2	53.00	-11.41	51.99
Bonds: Contribution to £ yield of: –						
	Redemption Yield	Changing Nominal Rates	Currency	Total		
UK	3.07	-4.26				-1.19
US	3.28	4.77	-11.41			-3.36
Germany	1.71	9.13	-5.38			5.47
Japan	0.25	0.54	6.75			7.55
Deposits: Contribution to £ yield of:						
	Deposit Yield	Currency	Total			
UK	0.63		0.63			
US	2.76	-11.41	-8.65			
Euro	0.54	-5.38	-4.84			
Japan	0.05	6.75	6.80			

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	
	August Letter	Current View	August Letter	Current View	August 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

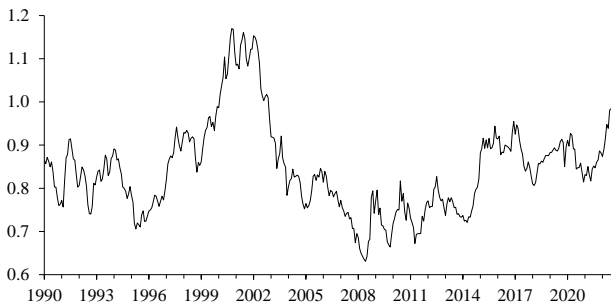
**US : Trade Weighted Index
(Bank of England 1990 = 100)**



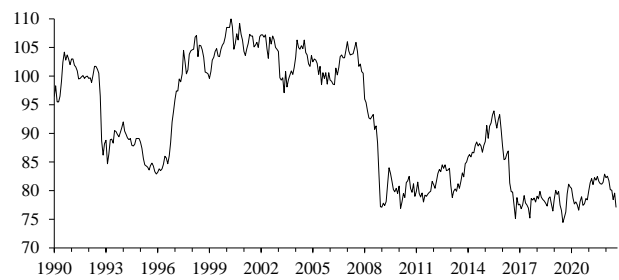
UK: Dollars Per Pound Sterling



Euro per US dollar



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



Japan : Yen Per U.S. Dollar

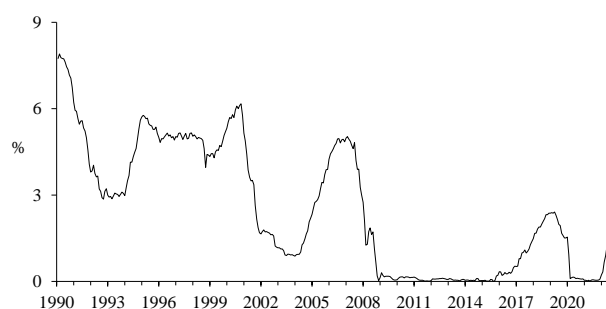


GOVERNMENT BOND MARKETS

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



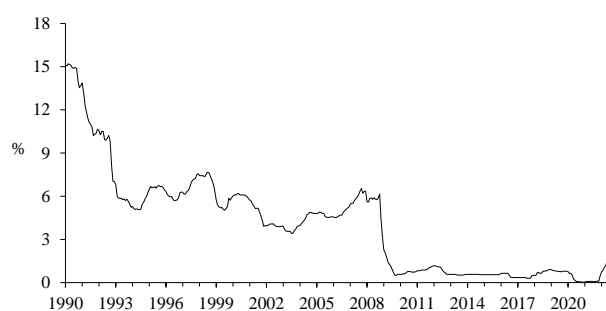
U.S. : 3-Month Treasury Bill



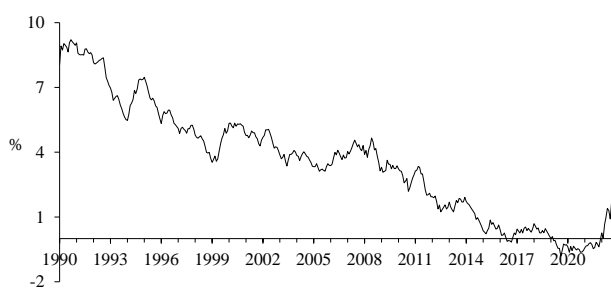
U.K.: Yield on Long-Term Government Bonds



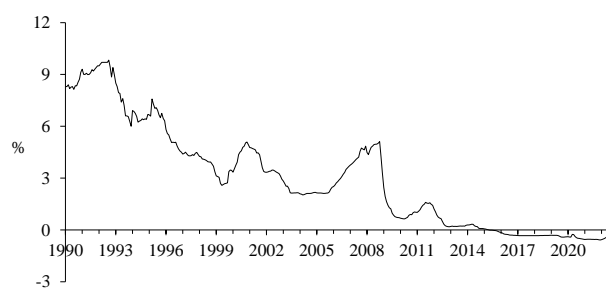
U.K. : 3-Month Certificate LIBOR Rate



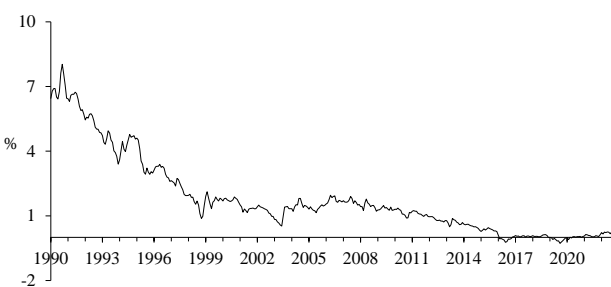
Germany: Yield on Public Authority Bonds



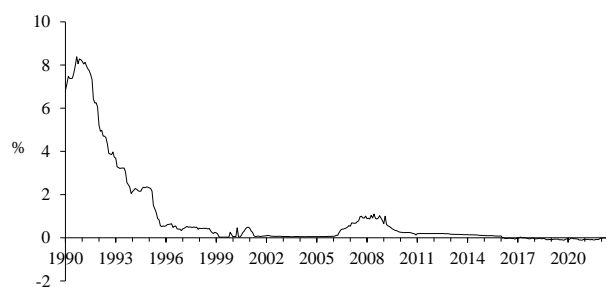
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

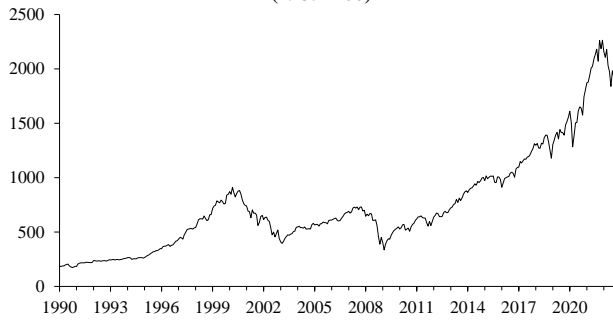


Japan : 3-Month Money Market Rate

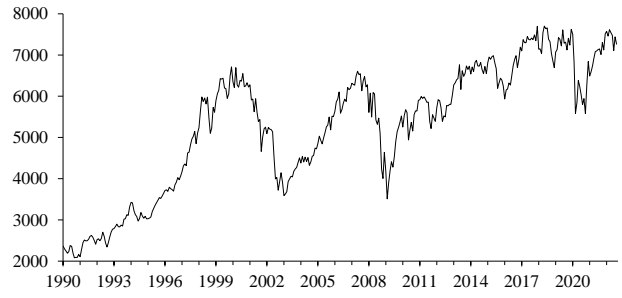


MAJOR EQUITY MARKETS

**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

India

The Indian economy is firing on all cylinders. It has turned the political leadership to be bold. The government expects the economy to grow at 7–7.5% in 2022–23, in line with its projections at the beginning of this financial year. The RBI has projected a growth rate of 7.2% for the current financial year. India’s Services Purchasing Manager’s Index (PMI) jumped from 55.5% in July to 57.2% in August, propelled by new businesses, demand improvement, and the sharpest rise in employment seen in 14 years.

We remain cautious in our forecast and keep our GDP growth forecast of 6.5% in the next three years. We reason that the domestic economy can provide only this much growth, and for India to add another one percentage point to its growth, it needs the world economy to grow as well. In the first quarter (April–June) of this fiscal year, the economy expanded at the quickest pace in a year, fuelled by consumption. India’s economy grew 13.5% in the April-to-June quarter from a year earlier, as coronavirus worries eased and allowed consumer spending to resume. Still, the pent-up demand will begin to taper off after October-to-December quarter.

As India avoided fiscal and monetary expansion because of the COVID pandemic and has foreign exchange reserves, it can expand at a respectable rate. India’s debt/GDP ratio has increased, but it remains manageable. Moreover, the Production-Linked Incentive scheme to attract investors to manufacture in India is showing results. The government has involved the private sector in its social programmes, such as affordable housing and its health insurance scheme to ensure that wastage and corruption in the economy are minimized.

The indirect tax collection, Goods and Services Tax, has remained buoyant, giving the government extra room to spend on infrastructure.

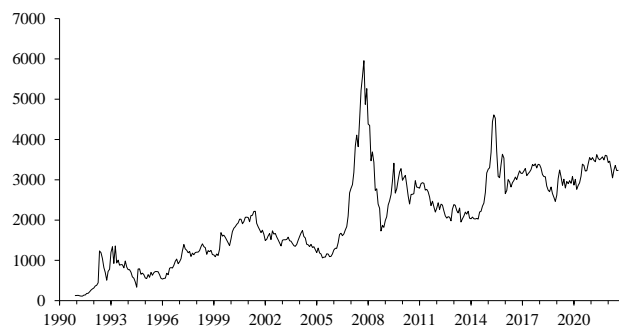
India’s exports fell by 1.15% year-on-year to USD 33 billion in August, while imports rose 36.8% to USD 61.7 billion. For the first five months of this fiscal year (April–August), exports totalled USD 192.6 billion, while imports stood at USD 317.8 billion, leaving India with a record trade deficit of USD 125.2 billion, or nearly two and half times the level in the same period a year ago. In April–August last year, the trade deficit stood at USD 53.8 billion.

A widening trade gap directly impacts the current account deficit (CAD), which in turn influences the Indian rupee’s resilience, investor sentiments and macroeconomic stability. India’s CAD, the broadest measure of India’s sell-and-buy

India: BSE Sensex



China: SSE Composite Index



balance with the rest of the world, is likely to touch USD 105 billion or 3% of GDP this fiscal year.

The rupee, which has already depreciated 7% against the U.S. dollar through this calendar year, will likely remain under pressure. The Reserve Bank does not shore up the rupee in the market but intervenes to reduce volatility in the forex market.

JPMorgan will most likely announce index inclusion of India’s bond market in mid-September. The index team has reasons to include India on the back of Russia’s exclusion. After inclusion, roughly 10% of fixed income investment would come to India. A 10% of the total investible fund will attract \$30 billion of inflows versus current foreign ownership of \$17.8 billion.

The stock market is almost at its peak, and sound corporate results support the markets.

	20–21	21–22	22–23	23-24	24-25
GDP (%p.a.)	-6.6	8.7	6.5	6.5	6.5
WPI (%p.a.)	5.5	6.0	6.5	5.3	5.0
Current A/c(US\$ bill.)	35.0	-42.0	-100.0	-90.0	-80.0
Rs./\$(nom.)	75.0	74.5	78.5	79.0	80.0

China

China is passing through the most extensive resurgence of the Covid-19 virus, forcing the government to restrict domestic travel in various parts of the country. China is sticking to its Zero Covid policy long after it has become

evident to the rest of the world that the approach does not work. To reverse the policy at this time would not look good for the Communist Party leadership transition. The CCP meeting is scheduled to take place on October 16th. The country is hurtling from one crisis to another. The government — still struggling with a real-estate crisis and Covid outbreaks — now have to contend with a historic drought. The resulting energy crisis and power shortages are threatening the supplies of everything from grains and aluminium to battery materials used in electric vehicles. Megacities like Shanghai are turning off the lights, while companies are warning of disruptions in the supply chain and shuttering factories.

The bearishness about China’s economy is all pervasive. We now forecast China to grow just 3% this year and in 2023, down from a previous forecast of 4%. Repeated closures of Chinese cities to fight virus outbreaks have weighed on consumers’ willingness to spend. Beijing’s recent stimulus measures — which include 1 trillion yuan in funds for infrastructure projects and central bank rate cuts — can help the economy keep its head above water.

Full-year inflation is also expected to be 2.5% for both 2022 and 2023; producer-price growth for 2023 is seen moderating to 1.4% from 5.5% this year. The consumer price index (CPI) increased 2.5% in August from the same month a year earlier. The consumer price index rose by 2.7% in July. China’s central bank cut key lending rates in the third week of August. The move is to provide more support for the slowing economy after the central bank lowered two other key policy rates in mid-August. China’s one-year loan prime rate, offered to banks’ best clients, was reduced to 3.65% from 3.7%, while the five-year LPR was cut to 4.3% from 4.45%.

Demand for Chinese exports has softened as Western economies cool and the Federal Reserve and central banks in Europe and Asia raise interest rates to contain surging inflation. China’s trade weakened in August as high energy prices, inflation and anti-virus measures weighed on global and Chinese consumer demand, while Russian oil and gas imports surged. Exports rose 7% over a year ago to USD 314.9 billion, decelerating from July’s 18% expansion. Imports contracted by 0.2% to USD 235.5 billion, compared with the previous month’s weak 2.3% growth.

The PBOC cut the amount of foreign-exchange deposits banks need to set aside as reserves for the second time this year to bolster the battered yuan. Lenders will need to hold 6% of their F.X. deposits in reserves starting September 15th, down from 8%. Despite the move, the yuan selloff continued as Covid lockdowns were extended in key cities.

The yuan declined for a sixth consecutive month in August. The yuan’s falling below the psychological mark of 7 per dollar is a matter of time now.

Korea: Composite Index



A longstanding dispute between Beijing and Washington over audits of U.S.-listed Chinese companies might finally have been resolved. The two sides agreed that U.S. regulators would travel to Hong Kong to inspect audit papers. It has provided breathing space to more than 200 Chinese companies, including Alibaba and Baidu.

China believes the U.S.’s long-time One China policy is evolving into a One China, One Taiwan policy. It has changed China’s posture in world politics.

Xi Jinping will almost certainly get a third (and historic) term, making him the most important Chinese leader since Mao. The party could also formally confer on Mr Xi the designation of renmin lingxiu, or the “people’s leader”. It would echo Mao Zedong’s title of weida lingxiu, or “great leader,” and cement Mr Xi’s claim to being on par with Mao as China’s greatest statesmen.

	20	21	22	23	24
GDP (%p.a.)	2.2	8.1	3.0	3.0	4.0
Inflation (%p.a.)	2.5	1.8	2.5	2.5	1.5
Trade Balance(US\$ bill.)	60.0	80.0	100.0	62.0	60.0
Rmb/\$ (nom.)	6.7	6.4	6.9	6.9	6.8

South Korea

The impact of China and the world economies’ slowdown is palpable in South Korea. Its export orders are falling and resulting in a fall in manufacturing production. Manufacturing production fell by 1.3% month on month in July, while June data was revised down to 1.7% from an earlier estimate of 1.9%. We expect GDP to remain at a standstill quarter on quarter in the second quarter. The likelihood of a negative second quarter cannot be ruled out. We maintain our GDP forecast of 2.4% in 2022 and 2023. South Korea’s government has planned a tighter budget-expenditure increase for next year, marking a policy turnaround as it looks to focus more on fiscal health than stimulus. The ministry of finance expects the government’s fiscal deficit to narrow to 2.6% of the gross domestic product in 2023 from an estimated 5.1% in 2022. It expects the national debt-to-GDP ratio to be at 49.8% in 2023 compared with an estimated 49.7% in 2022. It will help South Korea maintain price stability. The government has increased its

spending by an annual average of 8.7% for the past five years until 2022.

South Korea’s primary inflation rate slowed in August for the first time in seven months, but details of the price data suggest that inflation would stay elevated for a while. The consumer price index (CPI) rose 5.7% in August from the same month a year ago after a 6.3% gain in July, a 24-year high. In August, the softening in annual inflation was primarily due to a plunge in global crude prices as the data showed prices of oil products tumbling 10% in August from July. As expected, the Bank of Korea raised the benchmark seven-day repurchase rate by 25 basis points to 2.5% in August. That marked its fourth consecutive rate increase, and the bank is projected to tighten policy further.

Higher prices of oil, gas and other raw materials raised the value of imports, exacerbating the country’s trade balance. South Korea posted a record trade deficit in August as the currency hovered around a 13-year-low and energy prices remained elevated, swelling the cost of imports and amplifying pressure on exporters. Exports grew 6.6% from a year earlier to \$56.7 billion, following July’s revised 9.2% increase. Imports rose 28.2% to \$66.2 billion in August following a 21.8% rise in July on surging energy prices, leading to a trade deficit of \$9.5 billion.

The Bank of Korea is forced to counter the won’s weakness, which the bank attributes to the Chinese yuan’s depreciation and continuing trade deficits. The Korean won has depreciated roughly 16% year to date.

	20	21	22	23	24
GDP (%p.a.)	-0.9	4.1	2.4	2.4	2.3
Inflation (%p.a.)	0.5	2.5	5.0	3.5	3.0
Current A/c(US\$ bill.)	70.0	91.0	50.0	40.0	35.0
Won/\$(nom.)	1070	1150	1300	1350	1400

Taiwan

During the pandemic in 2020 and 2021, Taiwan saw accelerated growth as the Chinese economy got a boost from world demand and is now paying the price as the Chinese economy has slowed down. The slowing global demand for electronics, high inflation and rising geopolitical pressure from China cloud the economy’s outlook in 2023. We maintain our GDP growth forecast of 3.5% in 2022 and 3% in 2023. Our forecast is lower than that of the government agency DGBAS which expects a GDP growth of 3.8% for the year and 3.1% in 2023.

Inflation in Taiwan is expected to be 2.7% in 2022 and 2% in 2023. There is no change in our forecast as we do not expect Taiwan’s economy to be severely affected by fluctuations in commodity prices or food prices.

Taiwan faces several headwinds this year, including waning worldwide demand for electronics and semiconductors — critical exports for the economy. Warning signals from China and the U.S., Taiwan’s two largest export markets, also weigh on the outlook. An economic slowdown in the U.S. has sparked recession talk, while the Chinese economy

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



has struggled with ongoing Covid outbreaks and lockdowns and a property crisis. The exports and imports are forecast to grow by 5% and 7% in 2023 after a growth of 13.5% in exports in 2022.

Tensions in the Taiwan Strait and equity outflows are exerting pressure on the local Taiwanese dollar. Moreover, the Taiwan dollar will continue to see headwinds from the USD volatility, the slowdown in global trade and the global tech cycle, which looks to have passed its peak. The island’s currency has fallen almost 10% against the U.S. dollar this year to underperform most of its Asian peers.

	20	21	22	23	24
GDP (%p.a.)	3.1	6.5	3.5	3.0	2.8
Inflation (%p.a.)	-1.0	2.0	2.7	2.0	1.6
Current A/c(US\$ bill.)	71.0	90.0	90.0	65.0	60.0
NT\$/\$(nom.)	29.0	27.5	30.0	30.5	30.5

Brazil

The Brazilian economy is recovering slowly and trending upwards. At long last, the bitter dose of very high-interest rates has broken the back of inflationary expectations. Brazil’s economy posted a better than expected growth rate in the second quarter, supported by consumer spending. It may help President Jair Bolsonaro in his re-election campaign. He trails former President Luiz Inácio Lula da Silva in opinion polls but has lifted his popularity with an expanded welfare program and short-term tax measures to curb inflation. We expect the economy to grow 2% in 2022 and continue with this rate as the commodities market remains unsettled in the coming months.

Brazilian consumer prices decreased 0.36% in August, marking the second consecutive month of deflation as fuel

prices dipped. On an annualised basis, prices rose 8.73% compared to 10.07% in July. It is the first indication that the back of the inflationary expectations is broken. Brazil's central bank has pushed interest rates to 13.75% from a record low of 2% in March 2021 to battle high inflation.

The country recorded a trade surplus of \$4.2 billion in August, after an excess of \$5.4 billion in July. However, the pace of imports remains at a higher speed. Exports rose 8.4% in August from the same month last year, and imports jumped 30.5%. Part of this sudden rise was due to the increase in fuel purchases by the country. In May, the current account deficit was \$3.5 billion, the worst result for the month in eight years.

Brazil is setting up the National System for Reducing Greenhouse-Gas Emissions — a carbon-trading system — to trade carbon credits.

President Bolsonaro seems to be giving up his combative posture and has pledged to accept the election result and play down clashes with the Supreme Court.

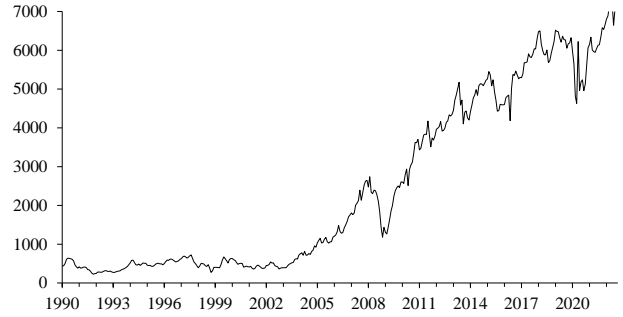
	20	21	22	23	24
GDP (%p.a.)	-3.9	4.6	2.0	2.0	2.0
Inflation (%p.a.)	4.5	8.5	8.0	5.5	4.0
Current A/c(US\$ bill.)	-7.6	-10.0	-10.0	-12.0	-20.0
Real/\$(nom.)	5.5	5.3	5.2	5.0	5.0

Other Emerging Markets

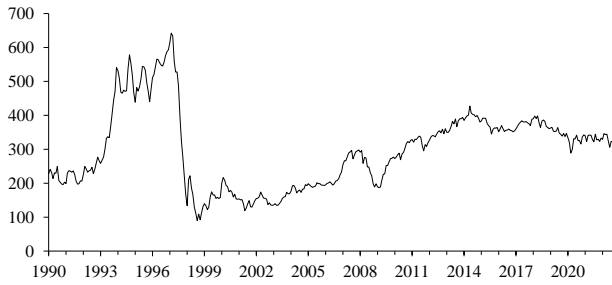
Hong Kong: FT-Actuaries



Indonesia: Jakarta Composite



Malaysia: FT-Actuaries (US\$ Index)



Thailand: Composite Index



Singapore: Straits Times Index



Philippines: Manila Composite

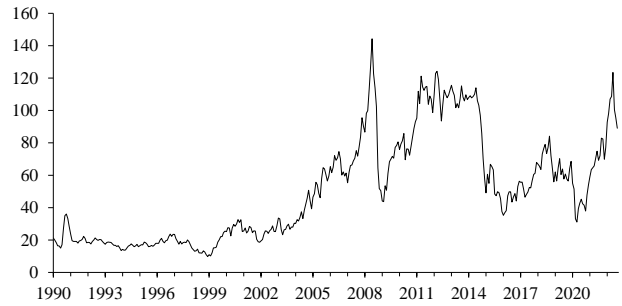


COMMODITY MARKETS

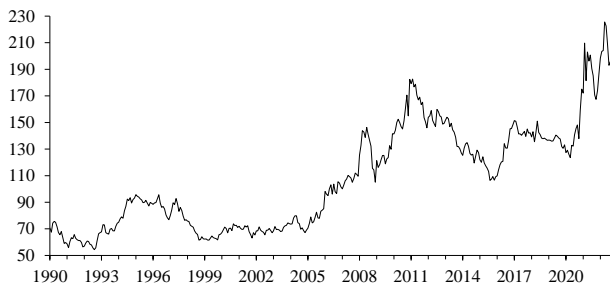
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



Oil Price: North Sea Brent (in Dollars)



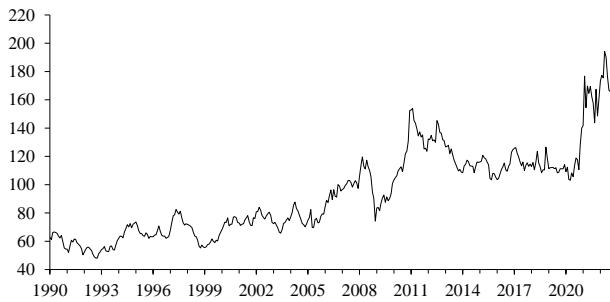
Commodity Price Index (Sterling)
(Economist, 2015 = 100)



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
2019	1.7	0.6	0.8	78.3	73.8	-0.7	2.6	-0.5
2020	1.0	0.1	0.2	78.2	72.9	-1.3	1.7	-1.4
2021	2.5	0.4	0.1	81.5	78.2	-5.8	4.2	-5.2
2022	8.2	2.3	1.7	80.2	82.7	-5.3	11.4	-4.6
2023	5.0	3.1	2.6	78.3	83.3	-1.0	8.1	-0.5
2024	3.2	3.0	3.0	77.8	84.2	0.6	4.9	0.6
2021:1	0.9	0.6	0.1	80.7	76.2	-3.6	1.6	-3.1
2021:2	2.1	0.9	0.1	81.7	77.6	-5.0	3.5	-4.2
2021:3	2.7	0.7	0.1	81.8	78.7	-6.5	4.6	-5.9
2021:4	4.4	0.9	0.2	81.5	79.7	-7.5	7.0	-6.8
2022:1	5.5	1.4	0.8	82.3	81.9	-7.7	8.5	-7.1
2022:2	7.9	2.1	1.4	80.1	81.5	-6.4	11.6	-5.7
2022:3	9.3	2.8	2.0	79.3	82.8	-4.5	12.5	-3.7
2022:4	10.1	3.0	2.5	79.1	84.6	-2.5	13.1	-2.0
2023:1	6.5	3.0	2.5	79.3	82.6	-1.7	11.0	-1.2
2023:2	5.4	3.1	2.5	78.9	83.4	-1.2	9.0	-0.6
2023:3	4.0	3.2	2.5	78.3	83.7	-0.9	6.4	-0.2
2023:4	3.9	3.2	3.0	76.7	83.5	-0.2	6.0	0.0

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)
2019	275.7	3.5	3.8	1.0	148.8
2020	279.1	1.6	4.5	1.3	149.7
2021	295.0	5.8	4.5	1.3	154.5
2022	312.4	5.9	3.7	1.1	151.0
2023	325.2	4.1	3.5	1.0	149.6
2024	336.5	3.5	2.8	0.7	150.0
2021:1	292.1	4.4	4.9	1.5	155.3
2021:2	289.6	7.2	4.7	1.4	153.4
2021:3	298.3	7.1	4.3	1.3	155.5
2021:4	299.8	4.0	4.1	1.2	153.6
2022:1	308.5	5.6	3.7	1.0	155.5
2022:2	307.5	6.2	3.8	1.1	150.7
2022:3	315.0	5.6	3.7	1.1	149.8
2022:4	318.7	6.3	3.7	1.1	147.8
2023:1	320.6	3.9	3.8	1.1	151.5
2023:2	321.1	4.4	3.6	1.0	149.2
2023:3	328.9	4.4	3.4	0.9	150.4
2023:4	330.3	3.6	3.2	0.9	147.4

¹ Whole Economy

² Average Earnings

³ 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
2019	167.8	803514.3	475369.3	308458.5	209136.4	-70959.7	118490.2
2020	152.0	728097.3	427575.8	258732.0	199232.3	-33095.4	124347.4
2021	163.5	783000.8	452313.8	292986.2	208533.4	-36884.7	133947.9
2022	171.3	820457.5	480576.8	282925.1	218565.6	-23844.3	137765.7
2023	175.1	838711.8	494494.3	277901.0	225310.6	-18634.4	140359.7
2024	180.0	862097.6	509517.5	279277.4	232155.7	-15889.1	142963.9
2019/18	1.4		0.3	3.1	3.0		-0.1
2020/19	-9.4		-10.1	-16.2	-4.8		4.9
2021/20	7.5		6.8	16.0	5.2		7.7
2022/21	4.8		6.4	-3.1	4.8		2.9
2023/22	2.2		2.9	-1.7	3.1		1.9
2024/23	2.8		3.0	0.7	3.0		1.9
2021:1	155.9	186597.5	106673.9	68534.3	51081.5	-7820.5	31871.7
2021:2	163.9	196206.0	112092.7	66778.3	51382.3	-668.1	33379.2
2021:3	166.4	199160.9	116084.7	78815.1	52892.3	-14394.2	34237.0
2021:4	167.9	201036.4	117462.5	78858.5	53177.3	-14001.9	34460.0
2022:1	169.5	202910.4	119289.5	72775.0	53945.4	-9205.5	33894.0
2022:2	169.3	202649.3	119521.4	65615.0	54462.4	-2866.9	34082.6
2022:3	172.4	206438.5	120432.8	71956.2	54873.8	-6097.4	34726.9
2022:4	174.1	208459.3	121333.2	72578.9	55284.0	-5674.6	35062.2
2023:1	174.5	208864.6	122246.4	76966.0	55700.2	-11225.3	34822.7
2023:2	174.8	209297.5	123160.0	67700.1	56116.4	-2756.3	34922.7
2023:3	175.1	209610.5	124085.8	66265.5	56538.3	-2249.7	35029.4
2023:4	176.2	210939.2	125002.0	66969.5	56955.7	-2403.2	35584.8

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	Current Account (£ bn)
2019	2.6	2196.3	56.9	-89.1
2020	15.4	2007.9	309.4	-53.8
2021	6.2	2311.2	144.1	-60.0
2022	4.8	2599.6	125.5	-80.2
2023	4.5	2759.2	124.1	-24.2
2024	1.0	2943.8	30.8	-14.7
2021:1	7.8	525.3	40.8	-12.4
2021:2	11.1	555.3	61.4	-11.3
2021:3	6.9	568.5	39.3	-28.9
2021:4	5.4	584.2	31.4	-7.3
2022:1	2.0	603.2	12.1	-51.7
2022:2	8.1	619.0	50.1	-18.3
2022:3	3.9	648.6	25.3	-6.1
2022:4	5.2	670.6	35.0	-4.1
2023:1	2.3	661.5	15.1	-9.6
2023:2	5.3	674.3	35.5	-9.8
2023:3	5.0	685.2	34.2	-3.3
2023:4	4.5	703.9	31.9	-1.5

¹ GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2018	2019	2020	2021	2022	2023
U.S.A.	3.0	2.2	-3.5	5.7	3.2	2.2
U.K.	1.3	1.4	-9.4	7.5	4.8	2.2
Japan	0.6	0.0	-4.7	1.7	2.1	1.8
Germany	1.3	0.6	-4.6	2.7	2.2	2.5
France	1.8	1.8	-8.0	7.0	3.8	1.1
Italy	0.9	0.3	-9.0	6.7	4.1	1.3

Growth Of Consumer Prices

	2018	2019	2020	2021	2022	2023
U.S.A.	2.4	1.8	1.2	4.7	7.0	3.2
U.K.	2.5	1.7	1.0	2.5	8.2	5.0
Japan	1.0	0.5	0.0	-0.2	1.6	1.0
Germany	1.8	1.4	0.5	3.1	6.3	2.7
France	1.9	1.3	0.5	1.7	4.6	1.5
Italy	1.2	0.6	-0.1	1.9	4.6	1.3

Real Short-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	0.6	0.3	-4.6	-7.1	-1.6	0.2
U.K.	-1.4	-0.7	-1.3	-5.8	-5.3	-1.0
Japan	-0.4	0.1	0.3	-2.9	-0.9	-0.6
Germany	-1.7	-0.9	-3.6	-6.0	-2.6	-2.3
France	-1.6	-0.9	-2.2	-5.1	-1.4	-1.6
Italy	-0.9	-0.3	-2.4	-5.2	-1.2	-1.4

Nominal Short-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	2.4	1.5	0.4	0.1	1.6	2.6
U.K.	0.4	0.8	0.2	0.1	1.7	2.3
Japan	0.1	0.1	0.1	0.1	0.1	0.1
Germany	-0.3	-0.4	-0.5	-0.6	0.1	0.4
France	-0.3	-0.4	-0.5	-0.6	0.1	0.4
Italy	-0.3	-0.4	-0.5	-0.6	0.1	0.4

Real Long-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	-0.9	-1.8	-3.1	-1.9	0.0	0.4
U.K.	-0.8	-0.4	-1.4	-5.2	-4.6	-0.5
Japan	-0.6	-0.6	-0.8	-0.9	-0.6	-0.6
Germany	-2.6	-3.1	-3.8	-3.2	-1.7	-1.4
France	-1.8	-2.2	-1.9	-1.8	-0.4	0.0
Italy	1.1	-0.4	-1.5	-1.0	1.2	1.6

Nominal Long-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	2.7	1.9	0.9	1.6	2.6	2.8
U.K.	1.0	0.6	0.1	0.4	2.3	3.1
Japan	0.0	0.0	0.0	0.1	0.2	0.2
Germany	0.2	-0.2	-0.6	-0.2	0.5	0.7
France	0.1	-0.3	0.2	0.3	1.0	1.4
Italy	2.8	1.4	0.5	0.9	2.4	2.8

Index Of Real Exchange Rate (2010=100)¹

	2018	2019	2020	2021	2022	2023
U.S.A.	113.7	117.1	118.7	116.1	128.3	128.0
U.K.	99.8	99.5	99.6	103.4	102.2	102.4
Japan	74.8	77.0	77.8	71.0	59.9	59.2
Germany	97.4	96.0	97.1	97.9	95.0	95.1
France	95.3	93.9	94.7	94.0	89.6	89.5
Italy	97.0	95.0	95.4	95.1	91.6	91.3

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)

	2018	2019	2020	2021	2022	2023
U.S.A. ¹	118.56	122.52	124.77	119.77	126.54	126.10
U.K.	1.33	1.28	1.29	1.37	1.20	1.23
Japan	110.01	109.10	106.60	110.45	131.10	130.50
Eurozone	0.85	0.89	0.87	0.85	0.95	0.96

¹ The series for the USA is a nominal broad U.S dollar index (2010=100); the series for the UK is \$ per £

* Forecasts based on the Liverpool World Model