LIVERPOOL INVESTMENT LETTER

June 2022

Cardiff Business School
Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied 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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SUPPLY INFLATION AND THE UK OUTLOOK

The latest PMI for May has dropped to 51.8, both for services and the composite. The manufacturing one is higher at 54.6. These readings are below the April figures, signalling some slowdown — not surprisingly. However, retail sales rose in April, so the consumer is still spending.

The UK should avoid recession. The latest help package to deal with the rising cost of living will also underpin that prospect. It was a good idea overall, but should not have been funded with yet more business taxes — admittedly windfall taxes have a limited effect on expected business profits because the circumstances they are levied in have a very low probability. But the Treasury treats business as a milch cow, having already announced a big rise in Corporation Tax, from 19% to 25%, to take place from April 2023.

This is a big mistake and wiser counsels should prevail, cancelling this plan. According to our models of the UK, this tax rise will hit innovation and investment and so growth quite badly: our estimate is that it will reduce growth by about 2.3% per annum, with worse effects in the North than in the South. This would effectively turn the UK into a zero growth zone.

Table 1: Summary of Forecast

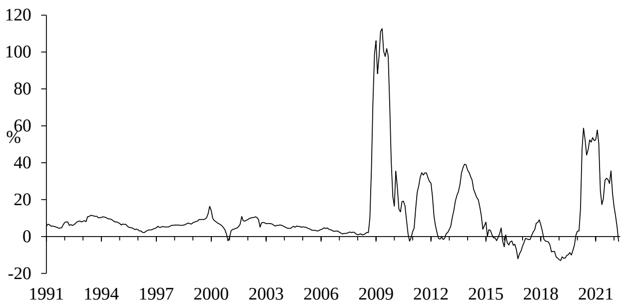
	2018	2019	2020	2021	2022	2023	2024
GDP Growth[1]	1.3	1.4	-9.4	7.5	5.6	2.2	2.8
Inflation CPI	2.4	1.7	1.0	2.5	7.0	4.3	3.2
Wage Growth	3.0	3.5	1.6	5.8	6.7	4.6	4.3
Survey Unemployment	4.1	3.8	4.5	4.5	4.1	3.6	2.8
Exchange Rate[2]	78.6	78.3	78.2	81.5	77.3	76.7	76.3
3 Month Interest Rate	0.4	0.8	0.2	0.1	1.5	2.4	2.9
5 Year Interest Rate	1.0	0.6	0.1	0.4	1.9	3.5	3.0
Current Balance (£bn)	-82.9	-89.1	-57.6	-63.8	-37.2	-24.9	-17.6
PSBR (£bn)	39.3	49.1	317.2	169.5	55.0	31.9	23.5

[1]Expenditure estimate at factor cost
[2]Sterling effective exchange rate, Bank of England Index (2005 = 100)

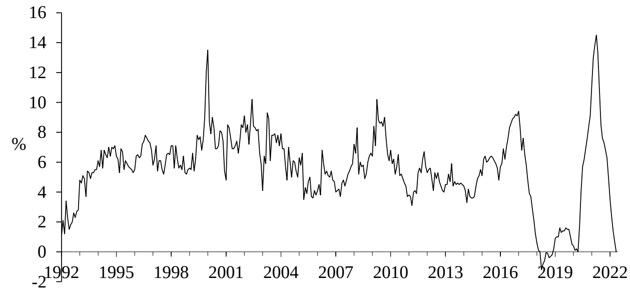
If the government can do a u-turn on windfall taxes and cost of living help, it should certainly do one on corporation tax, as it dawns on it what damage this would cause to growth, the no.1 post-Brexit priority.

For now we are not factoring this damage into our forecasts. We project inflation falling sharply next year as supply bottlenecks unwind, and higher interest rates reduce inflation expectations. We are looking for growth of just over 2% and inflation just over 4% in 2023.

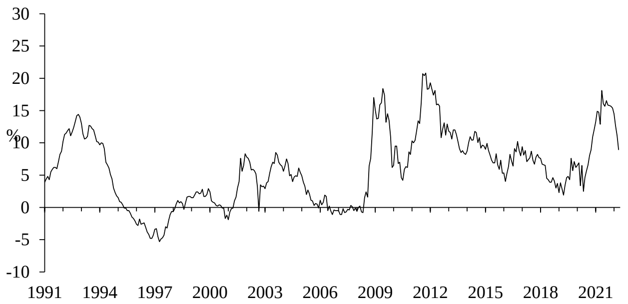
U.S.: Growth in M0 (Yr - on - Yr)



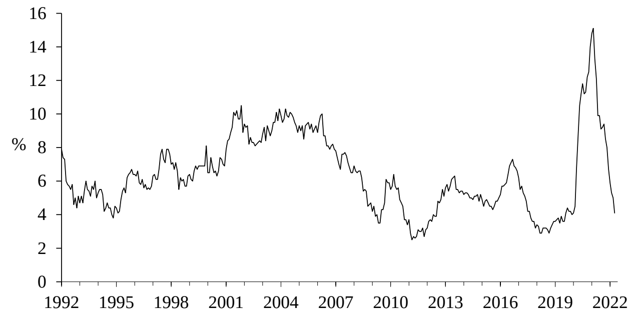
UK: Notes and Coins in Circulation Growth



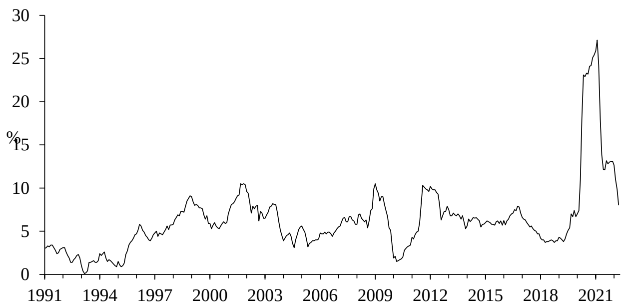
U.S.: Growth in M1 (Yr - on - Yr)



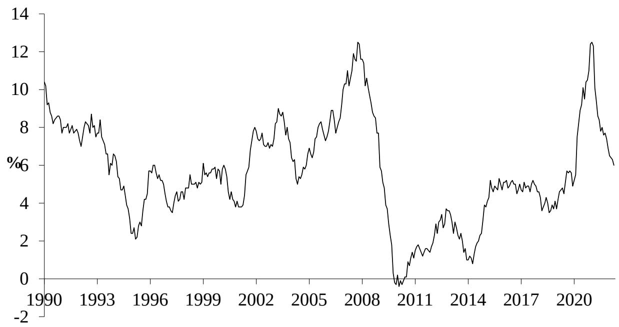
UK: M4 Growth



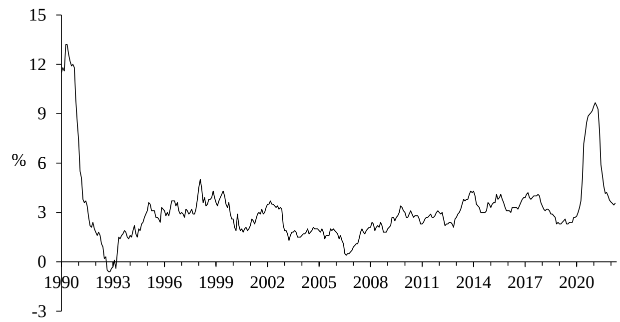
U.S.: Growth in M2 (Yr - on - Yr)



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japanese economy is again in contraction

Japan's gross domestic product contracted by 1% in real terms from January to March, Q1, compared to the previous quarter; but it was up by 0.2% year on year — slightly better than the median forecast of a 0.3% decline in a survey of 36 economists by the Japan Center for Economic Research (JCER).

Japan has contracted in three of the last five quarters, q-o-q, and has yet to return to its pre-pandemic output level. During most of the first quarter of this year, Japan imposed economic restrictions on businesses, mostly asking restaurants and bars to close early to curb the spread of the coronavirus pandemic; but it never had a lockdown. The last such restrictions ended in March. Therefore, many people refrained from shopping or dining out, leading to flat private consumption. Many economists had feared a deeper slump in private consumption in the first quarter, but the omicron wave peaked in February, allowing consumption to rebound in March. Among household expenditures, a fall in spending on services as well as durable goods including cars was partly offset by higher electricity bills. Unseasonably cold weather may have prompted people to use more heating during the reporting quarter, the official said. "A big drop in consumption was mainly behind the contraction in January–March GDP, due largely to the outbreak of the Omicron variant", said Saisuke Sakai, senior economist at Mizuho Research and Technologies, a think tank based in Tokyo. Indeed, private consumption, which accounts for more than half of the country's GDP, was at the same level as it was in the previous quarter, compared with a 2.5% growth q-o-q in the previous quarter.

The household sector was also hit by rising food and energy prices stemming from Russia's invasion of Ukraine on February 24. "The positive reading in nominal GDP indicates people did spend more money, but that was due to higher prices, not due to bigger purchase volumes," said Toru Suehiro, a senior economist at Daiwa Securities. To cushion the blow from inflation, Prime Minister Fumio Kishida's government recently approved a ¥2.7 trillion ($21 billion, about 0.4% of GDP) fiscal spending program, comprising gasoline subsidies and cash handouts to low-income families.

Another drag on the economy was sluggish exports, which was mainly held back by weak auto demand in China — exports rose 1.1% q-o-q, compared with a 0.9% increase in the previous quarter led by a recovery of car shipments to the US. Meanwhile, import growth outpacing that of exports also contributed to the overall GDP decline. Imports grew 3.4% q-o-q, following a 0.3% expansion in the previous quarter, with an increase in shipments of coronavirus vaccines and mobile phones as well as higher payments for research and development conducted by overseas companies contributing.

Looking at other demand components, capital expenditure, another key pillar of domestic demand, increased 0.5% q-o-q, following 0.4% growth in the previous quarter, on solid investments in general machinery such as gas turbines as well as on research and development. Private residential investment fell 1.1% q-o-q for the third consecutive quarter of decrease as construction material prices remained high. Government spending increased 0.6% q-o-q on procurement of COVID-19 vaccines but overall public demand, which includes government consumption, public investment and change in public inventories, decreased 0.2% q-o-q.

Japan is not alone in suffering the effects of the Ukraine war and rising prices. The US economy shrank 0.4% on a quarterly basis in the first quarter; the Eurozone eked out 0.3% growth; and China's GDP growth slowed to 1.3%. The International Monetary Fund last month lowered its forecast for global economic growth this year to 3.6% from 4.4%.

Japan's economy is expected to grow 1.3% in the current April to June quarter, according to the JCER survey, following the lifting of COVID restrictions on March 21. But the outlook for the rest of the year is uncertain due to global inflation, the war and lockdowns in China. "It is difficult to expect strong export growth for the rest of the year, as China prioritizes containing COVID outbreaks before the Communist Party national congress in the autumn", said Yuichi Kodama, chief economist for Meiji Yasuda Research Institute. But Kodama added that solid US growth is expected to underpin external demand. Meanwhile, pent-up demand is likely to lead to a rebound in domestic consumption [to pre-COVID levels] during the second quarter, but will later be offset by inflation, he added. Less optimistic is Yoshiki Shinke, Chief Economist at Dai-ichi Life. "It's hard to be optimistic about the outlook of Japan's economy now. What this means is that from the perspective of the economy, the Bank of Japan (BOJ) is not at a point where it can start to normalize policy," he said.

Indeed, Governor Haruhiko Kuroda has repeatedly argued that the central bank must keep its interest rate settings unchanged to support the fragile recovery. That stance has left Japan as an outlier on policy as the Federal Reserve and other monetary authorities race to raise their borrowing costs to tackle inflation. The resulting divergence has contributed to the sharp slide in the yen that is exacerbating pressure on the economy by amplifying the impact of soaring energy and commodity import prices. Cost pressures for companies rose at a double-digit pace for the first time since 1980 in April, intensifying pressure on firms to pass on higher costs to consumers.

MARKET DEVELOPMENTS

Rising interest rates are hitting equity prices, particularly in the tech sector where uncertainty surrounds future growth. Bond prices are steadily falling as long term interest rates rise. We expect supply bottlenecks to unwind and growth to hold up in 2023, with the world avoiding recession. This should stabilise equities. Interest rates should peak in the 2–3% range, finally moving clearly away from the zero bound.

Table 1: Market Developments

	Market Levels		Prediction for May/Jun 2023	
	May 04	**Jun 09**	**Previous Letter**	**Current View**
Share Indices				
UK (FT 100)	7545	7476	12486	12373
US (S&P 500)	4217	4097	5962	5793
Germany (DAX 30)	14098	14199	25137	25316
Japan (Tokyo New)	1900	1969	2555	2648
Bond Yields (government				
UK	1.95	2.31	3.50	3.50
US	2.96	3.03	2.80	2.80
Germany	0.99	1.40	0.80	0.80
Japan	0.23	0.52	0.20	0.20
UK Index Linked	−1.68	−1.10	1.00	1.00
Exchange Rates				
UK ($ per £)	1.26	1.25	1.36	1.36
UK (trade weighted)	80.18	80.08	78.7	78.7
US (trade weighted)	106.58	105.06	100.5	100.5
Euro per $	0.95	0.94	0.88	0.88
Euro per £	1.19	1.18	1.20	1.20
Japan (Yen per $)	129.56	134.29	110.5	110.5
Short Term Interest Rates				
UK	0.63	0.63	2.20	2.20
US	1.30	1.74	2.40	2.40
Euro	−0.59	−0.37	0.20	0.20
Japan	−0.05	−0.05	0.10	0.10

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	**Real Growth**	**Inflation**	**Changing Dividend Yield**	**Currency**	**Total**
UK	3.60	2.2	4.3	59.00		69.10
US	1.99	2.3	3.2	35.90	−8.44	34.95
Germany	3.30	2.5	2.8	73.00	−1.64	79.96
Japan	1.90	1.8	0.7	32.00	10.76	47.16
UK indexed[2]	−1.10		4.3	16.00		19.21
Hong Kong[3]	2.60	4.0	3.2	−7.00	−8.44	−5.64
Malaysia	3.30	5.4	3.2	73.00	−8.44	76.46
Singapore	3.50	3.0	3.2	37.00	−8.44	38.26
India	1.40	6.4	3.2	31.00	−8.44	33.56
Korea	1.10	2.3	3.2	−3.00	−8.44	−4.84
Indonesia	2.20	5.3	3.2	49.00	−8.44	51.26
Taiwan	2.80	3.0	3.2	42.00	−8.44	42.56
Thailand	3.20	4.0	3.2	53.00	−8.44	55.96

Bonds: Contribution to £ yield of: −

	Redemption Yield	**Changing Nominal Rates**	**Currency**	**Total**
UK	2.31	−11.88		−9.57
US	3.03	2.29	−8.44	−3.13
Germany	1.40	5.95	−1.64	5.70
Japan	0.25	0.51	10.76	11.52

Deposits: Contribution to £ yield of:

	Deposit Yield	**Currency**	**Total**
UK	0.63		0.63
US	1.74	−8.44	−6.70
Euro	−0.37	−1.64	−2.01
Japan	−0.05	10.76	10.71

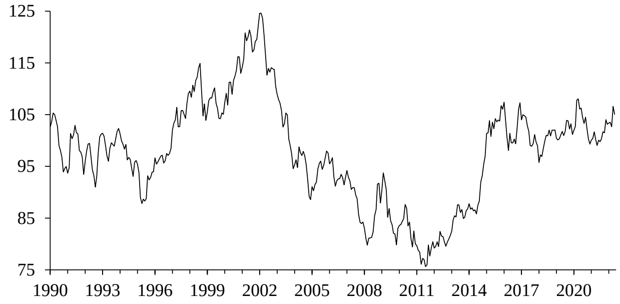
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

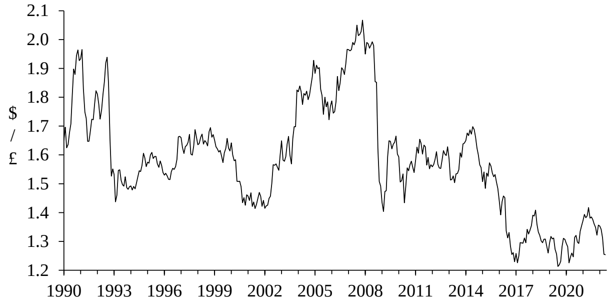
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	May Letter	Current View	May Letter	Current View	May Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
German 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

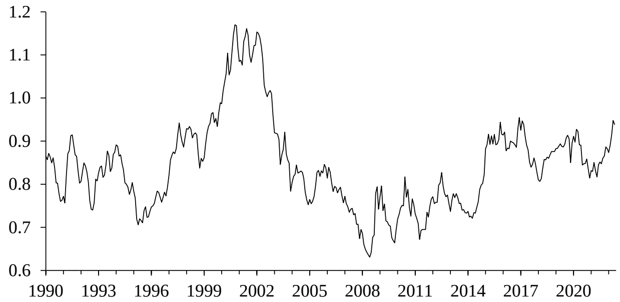
US : Trade Weighted Index
(Bank of England 1990 = 100)



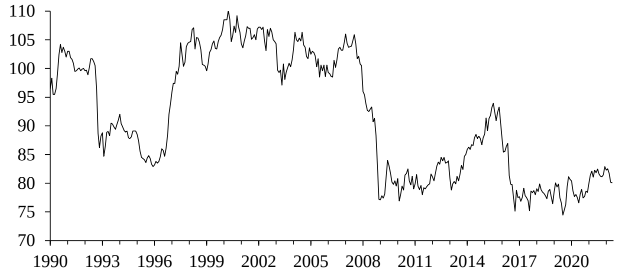
UK: Dollars Per Pound Sterling



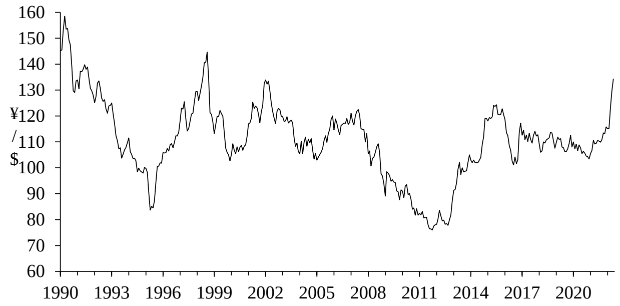
Euro per US dollar



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



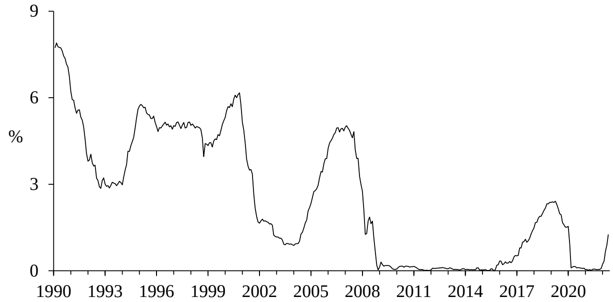
Japan : Yen Per U.S. Dollar



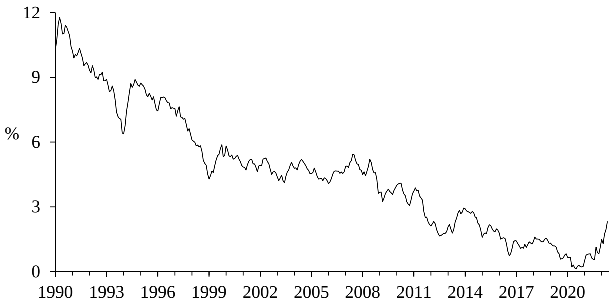
GOVERNMENT BOND MARKETS

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

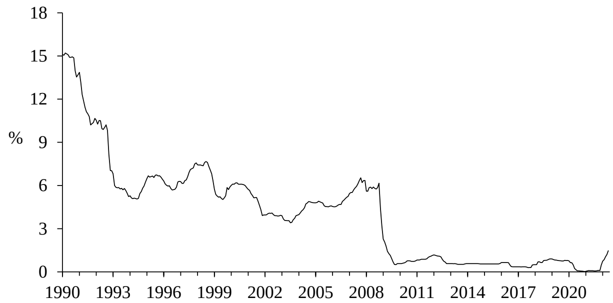
U.S. : 3-Month Treasury Bill



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

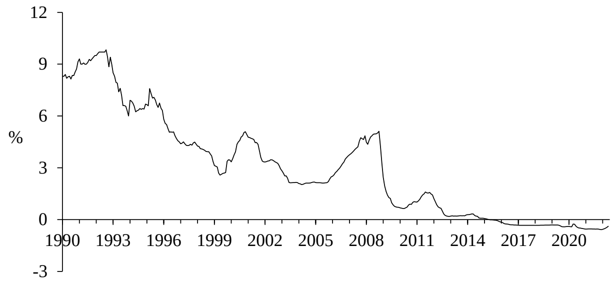


U.K. : 3-Month Certificate LIBOR Rate

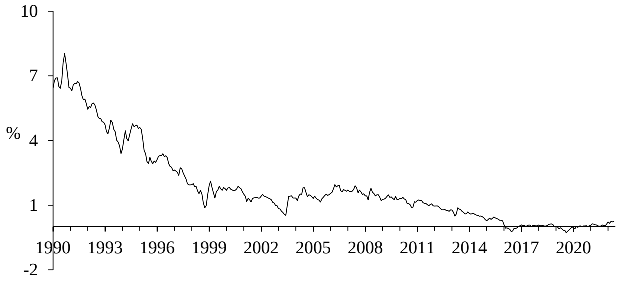


Germany: Yield on Public Authority Bonds

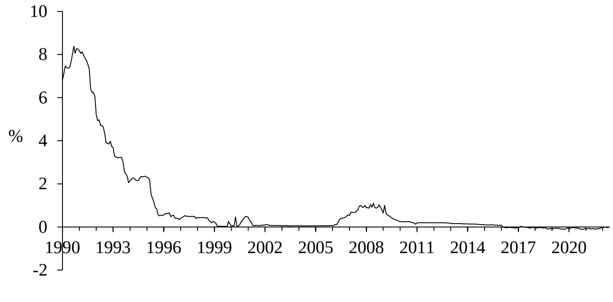
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

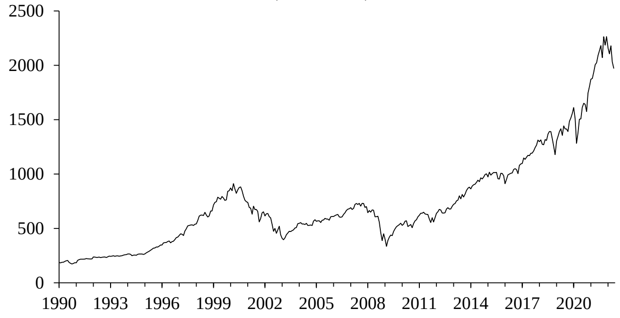


Japan : 3-Month Money Market Rate

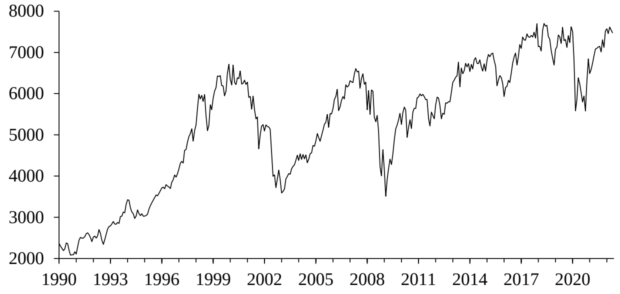


MAJOR EQUITY MARKETS

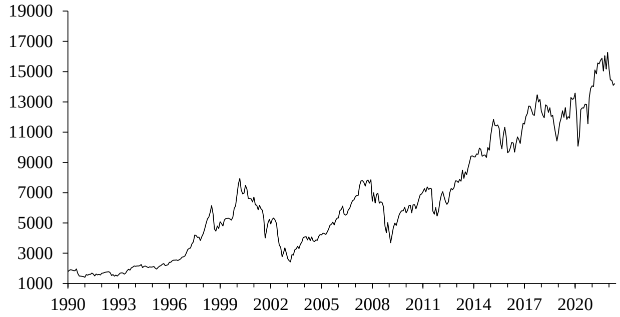
U.S. : S & P 400 Industrial (1985=100)



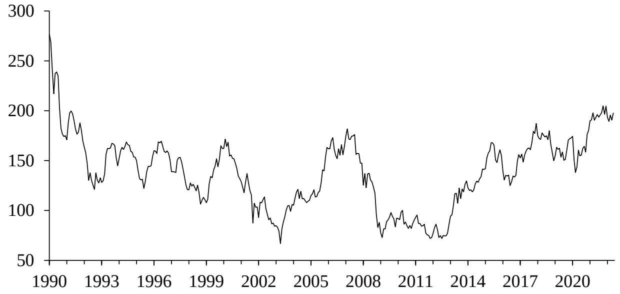
U.K. : FTSE-100 Index (10 April 1962=100)



Germany : DAX 30



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



EMERGING MARKETS

Anupam Rastogi

India

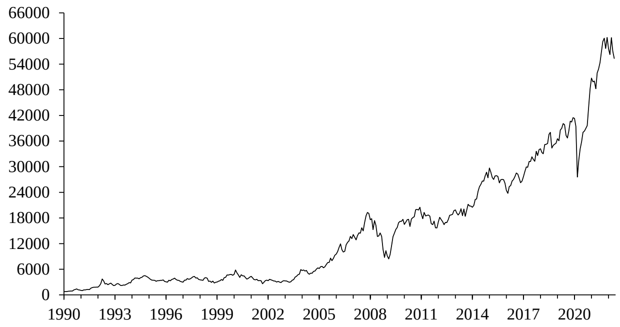
On the roads of cities and airports in India, one can hardly see any remnant of the COVID 19. In the last fiscal year itself, GDP recovered from the contraction of FY20–21. The economy is growing at a rapid pace. The buoyant indirect tax collections of the last four months is supporting robust economic growth. This year's monsoon is expected to be 103 percent of normal and will provide a healthy domestic demand in the coming year. Some of it is showing up in elevated consumer inflation, and the central bank has moved from an accommodative monetary policy to a tightening monetary stance. Eight years under the leadership of a right-wing government, having faced the pandemic squarely, the country has met economic challenges of inflation, economic growth, and fiscal deficit in a deft manner. In the first post-pandemic in-person meeting at Davos, World Economic Forum 2022, which mainly concentrates on future world economic growth, the world is bullish on the Indian economy. At Davos, a contingent of 100 Indians presented India as a stable, dynamic, and growing emerging market. It was in contrast to the troubles in Europe and the US due to the ongoing Ukraine war.

India emerged as the fastest-growing major economy in 2021–22 — the country's GDP grew 8.7%. It is marginally lower than our forecast of 8.9% despite headwinds like the war and high commodity prices leading to inflation in food and fuel. An unfavourable global backdrop, with monetary tightening, geopolitical tensions, a slowing China, and elevated commodity prices is likely to weigh on domestic growth via the trade channel and through flows. We expect GDP growth in the current fiscal year at 6.5% and continue to grow at this rate for the next two fiscal years.

The increase in commodity prices, especially crude oil prices, has fed into India's headline inflation. Consumer prices hit 7% in March, up from 6.1% in February, driven by the costs of food, fuel, and household items. As the crude oil prices are expected to remain high, we forecast consumer inflation to be 5.5% in FY23.

The Indian government's apparent desire is to put a lid on inflation, even hurting industries. The Reserve Bank of India, which had long been focusing on growth over its inflation mandate, has changed course and hiked its repo rate in an unscheduled May meeting, with more hikes to follow to control price pressures. In an off-cycle meeting held on May 2nd and 4th, the RBI's Monetary Policy Committee (MPC) hiked the policy repo rate by 40 bps to 4.4%. The Reserve Bank of India increased the base rate and CRR, sucking around Rs one billion of currency from the market. The upcoming MPC meeting is scheduled for the first week of June. A 40–50 bps rise in the repo rate is expected. We expect another 75–100bps hike in this fiscal year with a terminal rate of 6.5% on the repo rate in the current cycle.

India: BSE Sensex



Exports grew at this year's fastest pace, rising 30.7% in April from a year ago to $40.2 billion, although in value terms, that was lower than the $42.2 billion seen a month prior. Imports also rose 31% to $60.3 billion as high commodities prices pushed up the bill. That widened the trade deficit to $20.1 billion from $18.5 billion in March. We expect the current account deficit to $95–100 billion in FY23, 2.7% of gross domestic product (GDP), from $43 billion, 1.3% of GDP, in FY22

Further widening of the trade deficit and current account deficit is possible. It could weaken the rupee. In May, the Indian rupee plunged to 77.63 against the dollar amid a broader decline in Asian currencies. However, a healthy forex reserve would contain further depreciation.

In May, foreign portfolio investors (FPIs) continued their selling spree, pulling out nearly Rs 440 billion ($5.7 billion) from domestic markets. It is the worst sell-off the markets had seen since March 2020, when foreign investors dumped shares worth Rs 586.32 billion ($7.9 billion) due to the scare triggered by Covid-19. In recent months, the FPI selling in the Indian market is higher than emerging market (EM) peers such as Indonesia. It is due to India's sharp outperformance since March 2020 and better prospects and valuations in other EMs. However, given India's long-term prospects, FPI outflows could reverse after the global headwinds switch.

	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	5.5	5.3	5.0
Current A/c(US$ bill.)	35.0	-42.0	-95.0	-90.0	-80.0
Rs./$(nom.)	75.0	74.5	77.0	79.0	80.0

China

China has made many mistakes for which it is going to pay. Its one-child policy has boomeranged, and building gigantic infrastructure has dead weight on its economy. Both these policies affected China alone. But its Covid Zero strategy will affect the world economy for 3–4 years in terms of elevated consumer prices due to supply chain disruptions. It will continue until the world develops alternative sources to get enough semiconductors, assembled world-class products, and consumer items. The world's misery may get shortened if President Xi does not get reappointed in the 20th Party Congress in November. In Chinese Communist Party politics, the leader can never be wrong on anything, so Mr. Xi can't be seen to be changing his zero-Covid policy — at least not until the Party Congress is held.

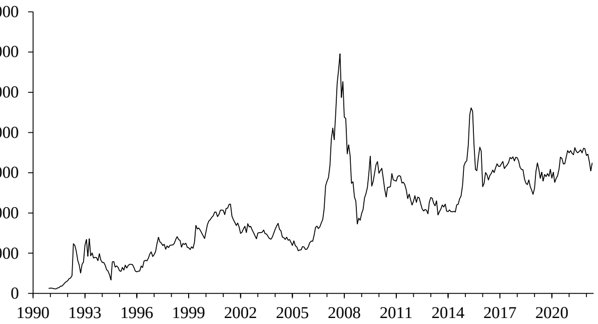
China is doubling down on mass testing. Tens of thousands of lab testing booths are being set up in the country's biggest cities to have residents just a 15-minute walk away from a swabbing point and allow officials to order tests as often as every 48 hours. The country is in the process of establishing "permanent" Covid hospitals. The implication is that China will remain closed to the outside world for travel, and the Chinese will face strict quarantine when they return from an overseas trip.

In the duopolistic Chinese politics, it was not surprising that there was discord at the top related to the Covid Zero strategy because there were bouts of open dissent against the government in places like Shanghai, which has reopened after being locked down for several weeks. China's Premier Li Keqiang, second in command to President Xi Jinping, has been unusually frank. An economist by training, Li understands better than most the monetary consequences of the draconian efforts to deal with the pandemic. The rest of the world's reaction, which will affect the world economy and world trade, is best captured by the Secretary of State of the US, Blinken, who laid out the Biden administration's approach toward China. "We cannot rely on Beijing to change its trajectory. So we will shape the strategic environment around Beijing to advance our vision for an open, inclusive international system."

China's commitment to Covid zero will fail to achieve the economic growth target in 2022. We maintain our forecast of four percent for 2022 and 2023. It is far more optimistic than many, but we are confident that fiscal push and relaxed monetary policy would be able to maintain economic growth. A monthly measure of new home prices in China fell in more than six years for the first time. The housing sector has long served as an economic growth engine.

China has announced that it is rolling back restrictions on movement and trying to stimulate the economy. The May manufacturing Purchasing Managers' Index improved to 49.6 though remained below the 50 levels, expanding from contracting conditions.

China: SSE Composite Index



The People's Bank of China and China's banking regulator urged lenders to "go all out to stabilize the economy's fundamentals."

Shanghai unveiled a 50-step economic support package that includes tax rebates and allows all manufacturers to resume operations in June. The city will speed up approval of property projects, supply more building land, and subsidize EV buyers to boost car sales. Li Keqiang instructs more than 100,000 officials from across China to use whatever resources they have to stabilize the economy as the zero-Covid policy remains in effect.

The People's Bank of China (PBOC) is all out to boost the economy. The PBOC has allowed commercial banks to reduce their mortgage rates by up to 20 basis points from the current floors while keeping the minimum mortgage rates for second-home buyers unchanged. The PBOC has cut reserve requirements further.

China's consumer price index in April was up 2.1% from a year earlier. The producer price index, a gauge of factory-gate inflation, was up 8% in April from a year earlier, down from March's 8.3%. China still imports significant volumes of crude oil and coal, whose prices have been pushed higher by geopolitical turbulence in Europe. In this scenario, we maintain our two percent consumer inflation forecast in 2022 and 2023.

Exports in dollar terms grew 3.9% in April from a year earlier, dropping sharply from the 14.7% growth reported in March. It was the slowest pace since June 2020.

Imports were broadly stable year-on-year, improving slightly from a 0.1% fall in March. The contraction of imports signals a reduction in trade surplus in the coming months. China posted a trade surplus of $51.1 billion in April compared to a $47.4 billion surplus in March.

The yuan hit its lowest levels since September 2020 in the onshore market that Beijing controls. The yuan has lost about 7% of its value against the US dollar in the past three months. In April alone, it posted its biggest monthly drop on record. In the same month, China's foreign exchange reserves fell by the most since late 2016. The loose monetary policy and depletion of forex reserves would push the yuan lower, but we do not expect the yuan to depreciate rapidly. We expect it to average 6.7 to the US dollar in 2022.

Foreign investors' outflows can weigh on the yuan, but China's trade surplus is sufficient to offset the outflows, and the longer-term movement into Chinese markets would continue.

	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	2.2	8.1	4.0	4.0	4.5
Inflation (%p.a.)	2.5	1.8	2.0	2.0	1.5
Trade Balance(US$ bill.)	60.0	80.0	60.0	52.0	45.0
Rmb/$(nom.)	6.7	6.4	6.7	6.7	6.6

South Korea

South Korea is getting impacted far more than other exporting nations due to supply chain interruptions and lockdown in China. We maintain our GDP forecast to 2.4% in 2022 and 2023 as well. The new government has proposed a supplementary budget to help small businesses recover from financial losses caused by the Covid-19 pandemic. Money will be used as cash handouts and financial support for merchants and small companies hit by pandemic-related curbs on business activities.

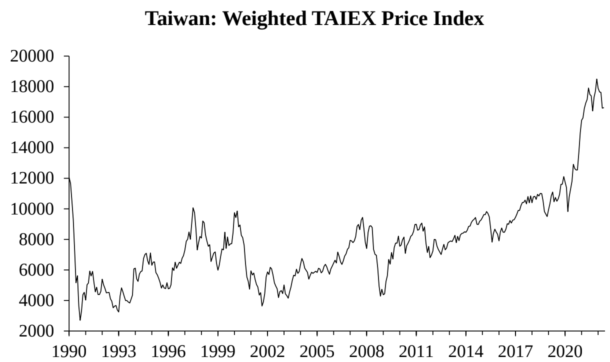
The Statistics Korea data showed the consumer price index (CPI) rose 4.8% in April from a year before, speeding up from a 4.1% rise in the previous month. Due to global supply bottlenecks and stimulus policies, surging prices of commodities have contributed to rapid price increases. We expect consumer inflation to be four percent on average in the current year and 2.5% next year.

South Korea's central bank raised its benchmark interest rate and signalled it would tighten policy further as it keeps up its fight against high inflation. The bank raised its benchmark seven-day repurchase rate by 25 basis points to 1.75% after increasing the same size at the previous meeting in April. It was the fifth rate increase since August 2021.

South Korea's exports grew faster in May compared to a slow pace in April. It suggests that global demand remains resilient in the face of war in Ukraine and a slowing economy in China. Overall exports rose 21.3 % in May from a year earlier. Total exports were USD 61.5 billion in May. Overall imports rose 32% from a year earlier to USD 63.2 billion, resulting in a trade deficit of $1.71 billion. For the third consecutive month, the country has logged a trade deficit. In the face of the stubborn rise in commodity prices, the trend will continue for a while, with a twin deficit becoming more likely.

The cumulative trade deficit so far this year nears $12 billion. This year, Korea could set a new record for the all-time high annual trade deficit. The worst annual trade deficit was $20.6 billion in 1996.

The two trade deficits are impacting South Korea's won. It hit the weakest level of 1291 to a USD in more than a decade in the second week of May. The won is likely to remain weak, influenced by FPI outflows, persistent trade deficit, rising geopolitical tensions, depreciation in the yuan, and Federal Reserve tightening. The average won to the USD is expected to be 1250.



	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	-0.9	4.2	2.4	2.4	2.3
Inflation (%p.a.)	0.5	2.5	4.0	2.5	2.0
Current A/c(US$ bill.)	70.0	91.0	50.0	40.0	35.0
Won/$(nom.)	1070	1150	1250	1300	1310

Taiwan

Taiwan's economy was not expected to grow at the same rate as the last year, and we expected it to grow four percent in 2022. We maintain our forecast for 2022 and three percent growth in 2023. The demand for semiconductors, the central plank of Taiwan's economy, will remain strong.

The government has revised its GDP forecast to 3.9% this year compared to an over-optimistic projection of 4.4% in February. Nonetheless, Taiwan's GDP per capita is expected to surpass South Korea's for the first time in 19 years.

Rising import prices have fuelled consumer prices. Consumer inflation is forecast to 2.7% on average this year, rising by 0.70 percentage points. In the current world trade scenario, we forecast inflation to be 2% on average in 2023 as Taiwan would continue to face higher commodity prices, supply-chain disruptions, and a new phase of COVID-19 in Taiwan.

Taiwan's export orders fell for the first time in more than two years in April, caused by China's strict anti-virus measures and broader global supply chain disruptions. As China opens up slowly, Taiwan's exports are expected to grow 15% this year. Taiwan's trade surplus may hit a new high above US$70 billion this year, mainly because of the ongoing robust global demand for semiconductors.

The central bank is managing to keep the Taiwan currency stable. It would allow the currency to appreciate marginally.

President Biden's gaffe in committing the US to defend Taiwan may have given some hope to Taiwan, but his actions reveal real-politic. He did not include Taiwan in the new Indo-Pacific Economic Framework that the US Administration announced in May. Interestingly, the US and Taiwan are planning to announce negotiations to deepen economic ties in a fresh challenge to Beijing. The talks would focus on enhancing economic cooperation and supply-chain resiliency. In the given scenario, we would argue that the US has moved from the "strategic ambiguity" toward Taiwan's defence, which has long been US policy. Under the 1979 Taiwan Relations Act, Washington committed to arming the island democracy to defend itself.

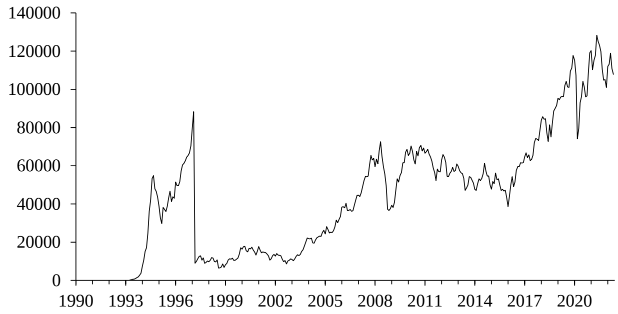
	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	3.1	6.5	4.0	3.0	2.8
Inflation (%p.a.)	-1.0	2.0	2.7	2.0	1.6
Current A/c(US$ bill.)	71.0	90.0	90.0	65.0	60.0
NT$/$(nom.)	29.0	27.5	27.5	27.0	27.0

Brazil

The fiscal stimulus and an increase in a cash transfer program to poorer people have helped the Brazilian economy to remain in positive territory. As people acquire immunity to the Omicron coronavirus, the job market situation is improving as social mobility continues to show improvement. The GDP is expected to grow one percent in 2022. The aggressive central bank monetary tightening to tame inflation will start affecting economic activity from the second half of the year onwards, and hence growth will remain subdued in 2023. We expect GDP to grow 1.5% next year in the current world trade environment.

Brazil's inflation slowed in April from March as the cost of power declined, and food and transportation prices rose

Brazil: Bovespa



more slowly. It is the highest reading in the last eighteen years. Brazil's central bank has been raising the cost of borrowing since early last year to slow consumer price increases. The bank raised its benchmark Selic interest rate by one percentage point to 12.75% at its policy meeting in May, and we expect it to raise it again at its next meeting in June. We expect the raise to be 75 basis points only. Higher prices for food and fuel have been the primary source of consumer inflation. The central bank's job is getting more challenging as the inflationary pressure extends through the rest of the economy.

The trade surplus reduced a little in April as exports could not keep pace with a more robust jump in imports. In April, the trade surplus was $8 billion compared to a $10 billion surplus a year ago. Higher prices had fundamentally driven the increase in exports and imports.

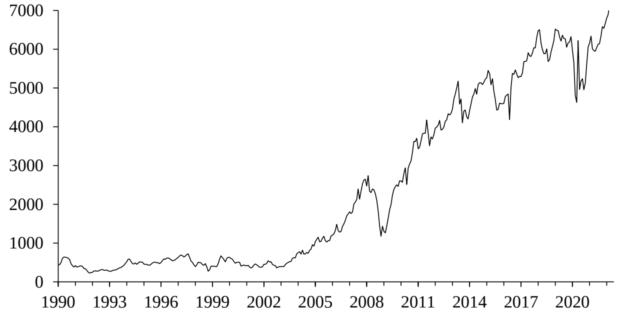
The real gained as much as 23% against the dollar this year, and it remained the world's best-performing currency. The real is trading around 4.8 to a US dollar, and we expect it to weaken toward 5.2 per dollar by the end of the year.

	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	-3.9	4.6	1.0	1.5	2.0
Inflation (%p.a.)	4.5	8.5	8.0	4.0	4.0
Current A/c(US$ bill.)	-7.6	-10.0	-10.0	-12.0	-20.0
Real/$(nom.)	5.5	5.3	4.8	4.9	4.9

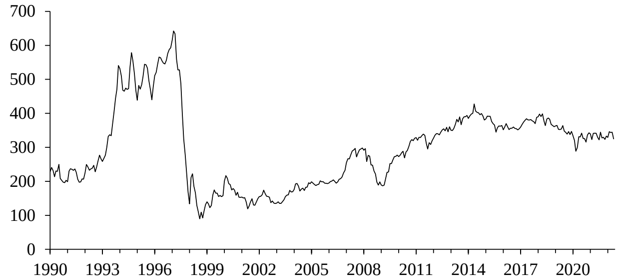
Other Emerging Markets

Hong Kong: FT-Actuaries

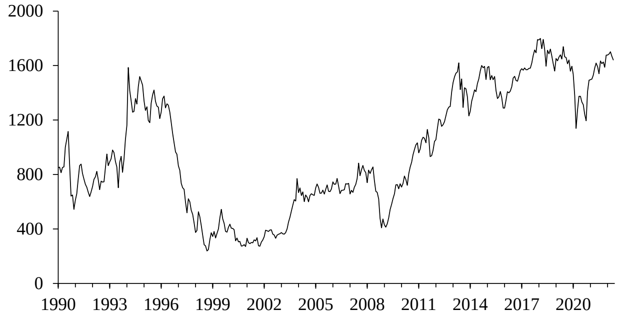
Indonesia: Jakarta Composite



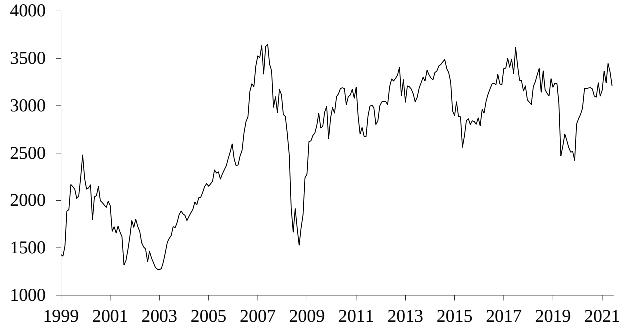
Malaysia: FT-Actuaries (US$ Index)



Thailand: Composite Index



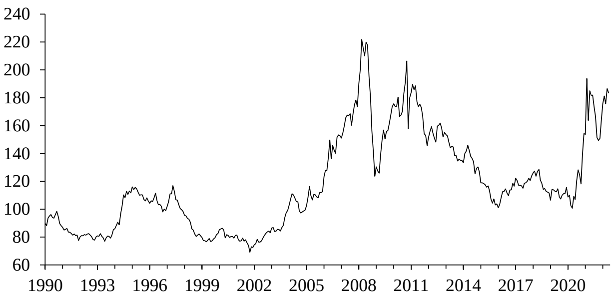
Singapore: Straits Times Index



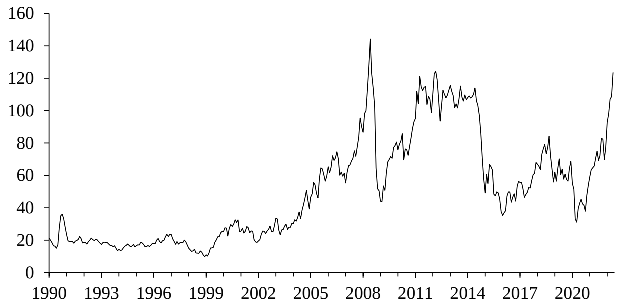
Philippines: Manila Composite

COMMODITY MARKETS

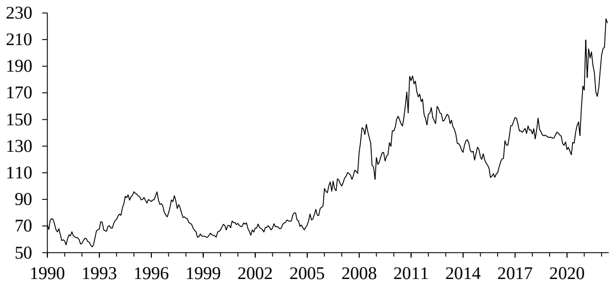
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



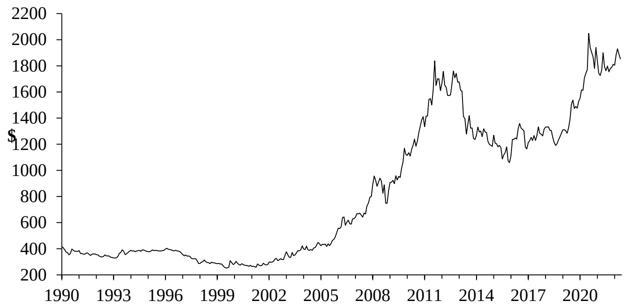
Oil Price: North Sea Brent (in Dollars)



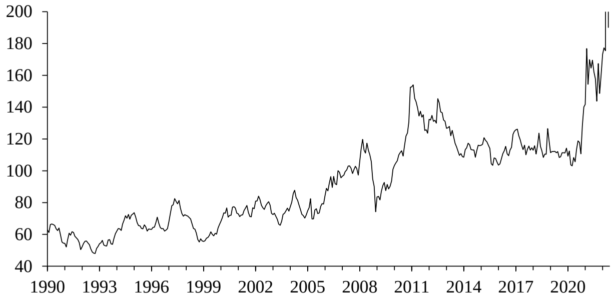
Commodity Price Index (Sterling)
(Economist, 2015 = 100)



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	1.5	-1.4
2021	2.5	0.4	0.1	81.5	78.2	-5.6	4.0	-5.3
2022	7.0	1.9	1.5	77.3	77.6	-4.0	8.7	-3.5
2023	4.3	3.5	2.4	76.7	78.9	-1.1	5.7	0.0
2024	3.2	3.0	2.9	76.3	80.0	0.5	4.3	0.6
2020:1	1.7	0.4	0.6	79.5	74.9	-0.2	2.6	-0.4
2020:2	0.8	0.0	0.1	77.6	71.9	-1.0	1.2	-1.1
2020:3	0.8	-0.1	0.1	77.6	72.2	-1.5	1.1	-1.7
2020:4	0.8	0.0	0.1	78.0	72.6	-2.7	1.1	-2.7
2021:1	0.9	0.2	0.1	80.6	76.2	-3.9	1.4	-3.8
2021:2	2.1	0.4	0.1	81.7	77.6	-5.2	3.4	-4.9
2021:3	2.7	0.3	0.1	81.7	78.7	-6.3	4.5	-6.1
2021:4	4.4	0.6	0.1	81.9	80.2	-6.9	6.7	-6.4
2022:1	6.9	0.7	0.3	77.8	77.4	-6.2	9.0	-5.8
2022:2	7.1	1.7	1.7	77.7	77.3	-4.2	8.7	-4.2
2022:3	7.0	2.2	1.8	76.9	77.3	-3.3	8.5	-2.9
2022:4	7.0	3.0	2.0	76.9	78.4	-2.3	8.5	-1.3

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	296.1	5.8	4.5	1.3	154.5
2022	314.8	6.7	4.1	1.1	154.0
2023	328.4	4.3	3.6	1.0	154.0
2024	341.1	4.1	2.8	0.7	155.4
2020:1	279.7	2.7	4.0	1.1	150.0
2020:2	270.1	-0.2	4.1	1.2	145.9
2020:3	278.6	0.2	4.8	1.4	149.0
2020:4	288.2	3.7	5.2	1.6	154.0
2021:1	292.1	4.5	4.9	1.4	155.3
2021:2	289.7	7.3	4.7	1.3	153.4
2021:3	298.4	7.1	4.3	1.3	155.5
2021:4	301.1	4.5	4.1	1.2	153.6
2022:1	311.7	6.7	4.0	1.1	155.0
2022:2	309.3	6.8	4.1	1.1	152.9
2022:3	318.3	6.7	4.1	1.1	155.0
2022:4	319.9	6.7	4.1	1.1	153.1

1 Whole Economy
2 Average Earnings
3 Wage rate deflated by CPI

Estimates and Projections of the Gross Domestic Product[1] (£ 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	163.3	782161.7	452309.6	292118.7	208538.0	-36908.1	133896.5
2022	172.3	825357.2	479861.8	289024.0	218557.2	-23886.6	138199.2
2023	176.1	843295.7	494513.6	282408.2	225319.4	-18612.0	140333.5
2024	181.0	866882.8	509517.7	285194.7	232155.8	-15890.3	144095.1
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	15.8	5.2		7.7
2022/21	5.6		6.2	-0.3	4.8		3.2
2023/22	2.2		3.1	1.2	3.1		1.5
2024/23	2.8		3.0	1.7	3.0		2.7
2020:1	163.4	195632.5	118032.8	72147.1	51656.8	-11632.2	34572.0
2020:2	131.6	157502.4	91565.8	47009.3	43743.5	429.6	25245.8
2020:3	155.3	185971.2	109964.7	64749.1	50846.1	-8204.0	31384.7
2020:4	157.9	188991.2	108012.5	74826.5	52985.9	-13688.8	33144.9
2021:1	155.5	186205.9	106678.2	68183.6	51087.4	-7838.9	31904.4
2021:2	163.9	196217.8	112089.9	66707.0	51382.2	-672.0	33289.3
2021:3	166.4	199176.5	116084.7	78828.1	52892.3	-14394.2	34234.4
2021:4	167.5	200561.5	117456.8	78400.1	53176.1	-14003.1	34468.4
2022:1	169.2	202535.5	118569.8	73860.3	53932.3	-9285.7	34541.2
2022:2	172.2	206121.1	119522.6	69230.1	54465.4	-2829.4	34267.6
2022:3	173.5	207696.3	120433.1	73370.9	54873.9	-6098.3	34883.3
2022:4	174.6	209004.2	121336.4	72562.6	55285.5	-5673.1	34507.2

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	2.2	2196.3	49.1	-89.1
2020	15.8	2006.2	317.2	-57.6
2021	7.4	2311.2	169.9	-63.8
2022	2.1	2579.1	55.0	-37.9
2023	1.2	2732.3	31.9	-25.5
2024	0.8	2903.4	23.5	-18.1
2020:1	-0.9	549.4	-5.0	-18.7
2020:2	30.6	437.6	133.8	-11.9
2020:3	14.6	519.2	76.0	-12.3
2020:4	12.2	525.7	64.3	-14.8
2021:1	8.2	523.6	43.0	-11.3
2021:2	11.1	554.9	61.6	-13.9
2021:3	7.1	568.4	40.1	-24.0
2021:4	5.8	582.1	33.9	-14.6
2022:1	5.7	605.7	34.2	-15.0
2022:2	2.1	625.2	13.2	-19.3
2022:3	2.3	638.1	14.5	-6.9
2022:4	2.1	654.1	13.7	3.3

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	5.6	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	1.8	1.0	2.5	7.0	4.3
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	–0.2	–2.3	–6.9	–2.8	–1.9
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	1.5	2.4
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	–2.4	–6.6	–2.4	–0.8
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	1.9	3.5
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 (2000=100)[1]

	2018	2019	2020	2021	2022	2023
U.S.A.	93.5	96.3	97.6	95.5	98.5	97.0
U.K.	77.4	78.6	78.3	78.2	77.6	78.9
Japan	57.8	59.4	60.6	54.8	52.1	51.5
Germany	96.5	94.8	95.8	96.6	94.3	93.8
France	97.4	95.6	96.4	95.7	93.2	93.1
Italy	102.8	100.4	100.9	100.5	100.0	99.5

[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]	112.01	115.73	117.78	113.13	111.49	112.10
U.K.	1.34	1.28	1.28	1.38	1.35	1.35
Japan	112.10	110.40	109.02	106.78	115.10	114.80
Eurozone	0.85	0.89	0.88	0.85	0.88	0.88

[1] The series for the USA is a nominal broad U.S dollar index (2006=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model