LIVERPOOL INVESTMENT LETTER

January 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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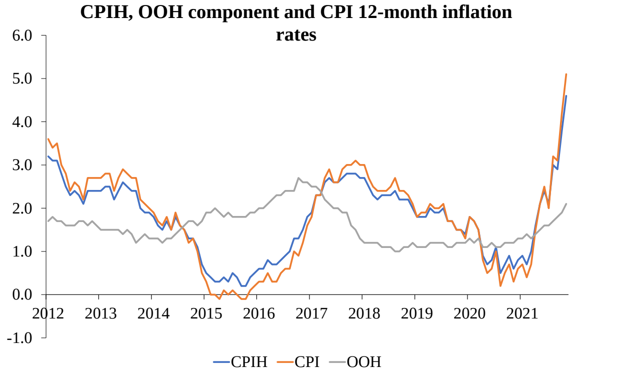
WHERE IS INFLATION HEADED?

The latest inflation data looks ominous, with the YOY rate reaching 5.1%.



The CPIH includes owner-occupiers' housing costs (OOH), a new addition.

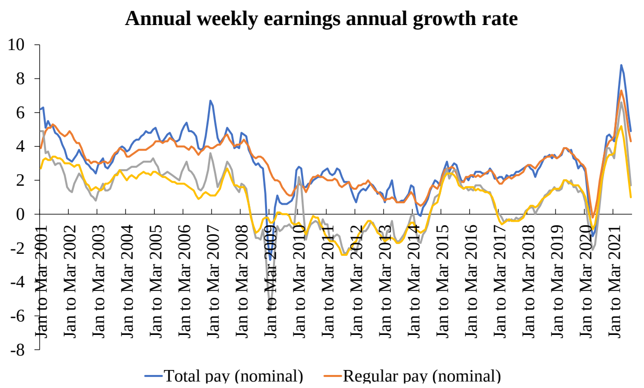
Wages are rising around 5%. The question is whether they will grow faster in coming months, in response to the higher inflation we are seeing. To gauge this, we need to estimate what inflation workers will expect, as they will aim to get an appropriate real pay gain in the light of economic conditions. This may not need to be much above the 2% where it was pre-Covid in 2019. There has been a recent labour shortage in key industries but with workers still coming off furlough, the labour market as a whole looks roughly in balance.

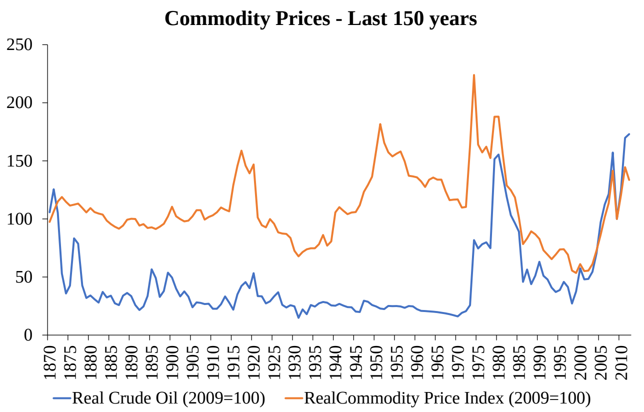
Table 1: Summary of Forecast

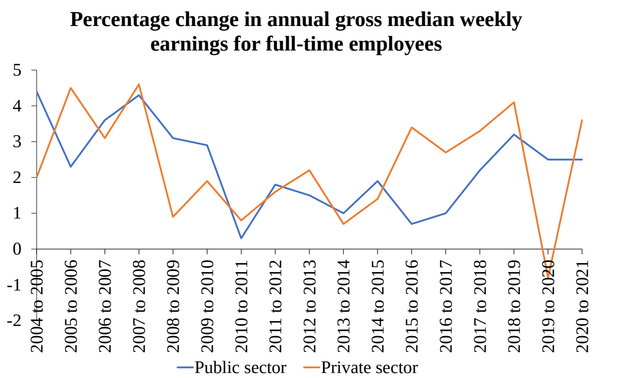
	2018	2019	2020	2021	2022	2023	2024
GDP Growth[1]	1.3	1.4	-9.9	6.7	5.7	2.9	2.1
Inflation CPI	2.4	1.7	1.0	2.3	5.0	4.3	3.2
Wage Growth	3.0	3.5	1.6	6.1	4.8	4.6	4.4
Survey Unemployment	4.1	3.8	4.5	4.6	4.9	3.6	2.8
Exchange Rate[2]	78.6	78.3	78.2	81.0	78.5	77.5	77.1
3 Month Interest Rate	0.4	0.8	0.2	0.1	0.7	1.4	2.9
5 Year Interest Rate	1.0	0.6	0.1	0.3	1.1	2.5	3.0
Current Balance (£bn)	-82.9	-89.1	-58.2	-48.3	-36.0	-24.3	-17.0
PSBR (£bn)	39.3	49.1	306.6	178.7	56.8	41.4	18.5

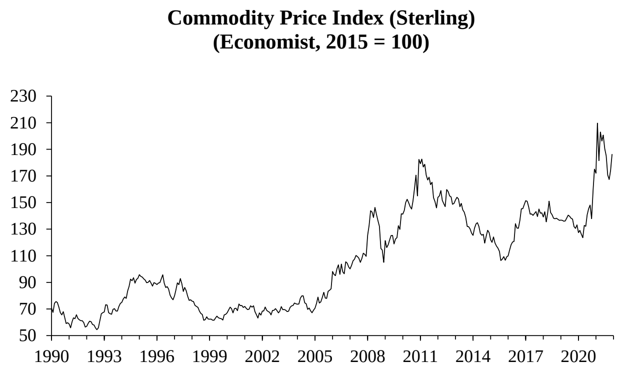
[1]Expenditure estimate at factor cost
[2]Sterling effective exchange rate, Bank of England Index (2005 = 100)

Much has been made of the huge increases in the money supply during the pandemic. However, these were the result of massive QE in support of fiscal expansion to offset Covid effects on output; they are now being tapered off, with interest rates rising in the UK and expected to rise in the US. In the EU they will probably not rise but QE is being tapered. The central banks of all three areas are committed to bringing inflation down to 2%. In this they will be helped by a downwards backlash in commodity prices which have surged in the Covid recovery process. The nearest parallel to the recent pandemic commodity surge is the period after WW1 in the 1918 flu pandemic — see chart below. Real commodity prices came back to their pre-war levels in 1920.









Other input prices have followed commodity prices upwards — including shipping rates and computer chips. It is likely that during 2022 they will fall as demand normalises and capacity increases in the usual commodity cycle. This will sharply moderate inflation, allowing central banks to hit their targets in 2023. Workers will anticipate this and these expectations will keep pay increases down.

Hence our forecast for inflation and interest rates are fairly moderate, as shown in our latest forecast tables for the world below. This outlook is disappointing from a policy viewpoint as it reveals that interest rates are still stuck close to the zero bound. It would be better if fiscal policy was more expansionary, driving inflation and interest rates upwards more solidly. However, the signs are that fiscal retrenchment is now taking over. The UK situation is shown below, according to our calculations. As can be seen, UK fiscal policy is turning negative, in response to the Treasury concerns we discussed in the last Liverpool Investment Letter. This is inappropriate, given the need to keep tax rates down to support growth.

Budget Effect on Demand

	2020	2021	2022
Trend GDP growth %	2.0	2.0	2.0
Growth GDP Covid %	-9.0	6.7	5.7
Covid effect GDP %	-11.9	4.7	3.7
PSBR £billion			
Covid direct effect	109	-44	-34
PSBR outturn/forecast	307	180	58
Fiscal ex-Covid	198	224	92
% GDP	8.7	9.7	4.0
Fiscal impact-demand	8.7	1.0	-5.7

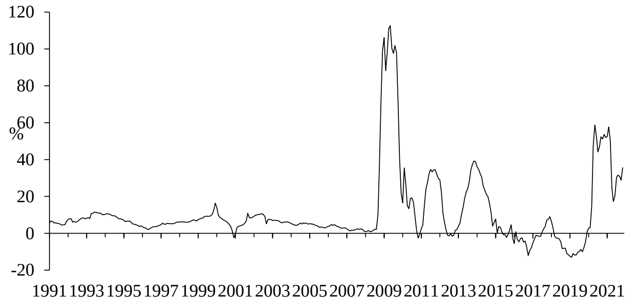
Growth Of Consumer Prices

	2018	**2019**	**2020**	**2021**	**2022**	**2023**
U.S.A.	2.4	1.8	1.2	4.6	4.6	3.8
U.K.	2.4	1.7	1.0	2.3	5.0	4.3
Japan	1.0	0.5	0.0	–0.2	0.5	0.8
Germany	1.8	1.4	0.5	3.1	2.7	2.5
France	1.9	1.1	0.5	1.8	2.2	2.1
Italy	1.2	0.6	–0.2	0.8	1.9	2.3

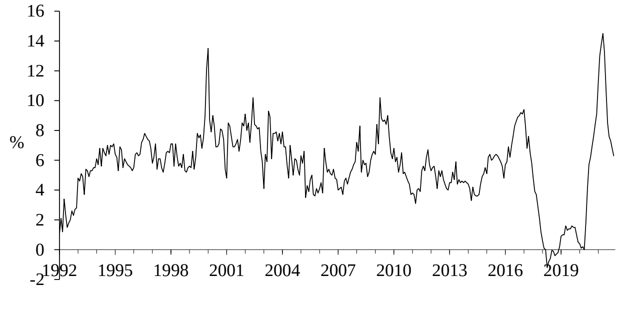
Nominal Short-Term Interest Rates

	2018	**2019**	**2020**	**2021**	**2022**	**2023**
U.S.A.	2.4	1.5	0.1	0.1	0.5	1.5
U.K.	0.7	0.8	0.2	0.1	0.7	1.4
Japan	0.1	0.1	0.1	0.0	0.1	0.1
Germany	–0.3	–0.4	–0.5	–0.6	–0.1	0.1
France	–0.3	–0.4	–0.4	–0.6	–0.1	0.1
Italy	–0.3	–0.4	–0.4	–0.6	–0.1	0.1

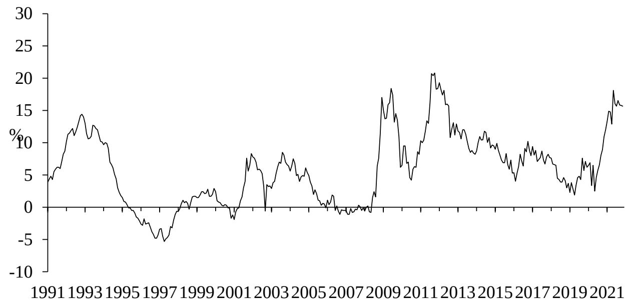
U.S.: Growth in M0 (Yr - on - Yr)



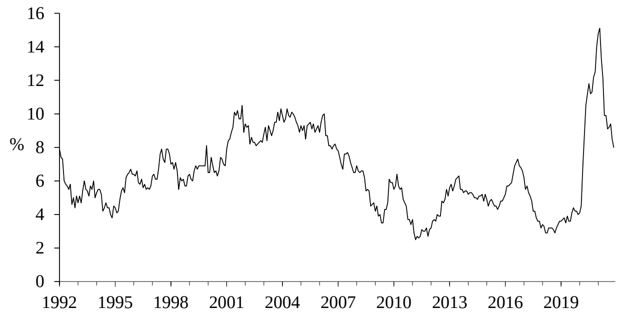
UK: Notes and Coins in Circulation Growth



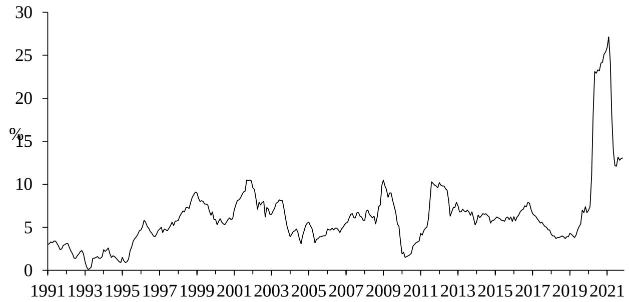
U.S.: Growth in M1 (Yr - on - Yr)



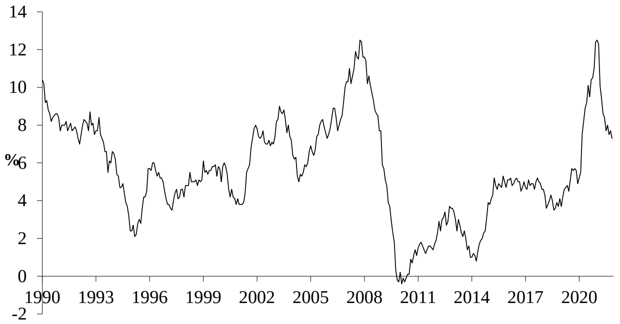
UK: M4 Growth



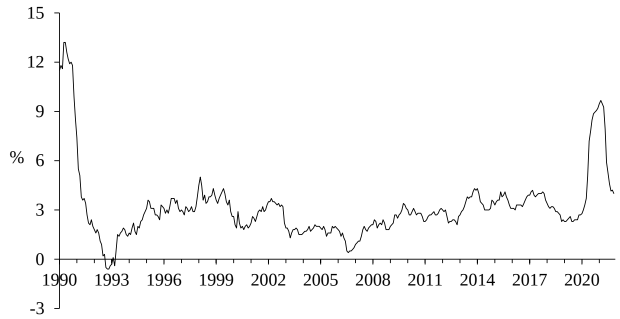
U.S.: Growth in M2 (Yr - on - Yr)



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japan economic prospects for 2022

Japan's economy will likely grow in 2021 and the first three months of next year, as consumer and corporate activity are expected to rebound from a heavy pandemic-induced toll, a recent Reuters poll of 40 economists showed. Japan's GDP growth is set to fall by 2 percentage points (y-o-y) in the last quarter of 2021 — that is -0.9% q-o-q. This means that GDP growth was 1.1% for the whole of 2021. We are more optimistic with a 2.7% growth. The IMF, for its part, projects that Japan's GDP will grow 3.2%. That rebound follows the third quarter's 1.1 percentage increase (y-o-y) and would be welcomed by policymakers hoping to see the economy steadily shake off the drag from the health crisis after the lifting of pandemic curbs following a summer spike in COVID-19 cases.

Toshiaki Ono, senior economist at Fukoku Mutual Life Insurance said that "it's of course hard to imagine consumption will recover to pre-coronavirus levels at once. Still, a pickup in the number of people going out was likely to boost the economic growth rate this quarter, even with services spending remaining lower than before the crisis". Overall, analysts have expressed hopes private consumption, which accounts for more than half of GDP, will benefit from the government's spending package, especially its plan to restart a domestic tourism campaign.

The poll also showed that more than 90% of economists said changes in oil, energy and raw material prices were likely to have a damaging impact on the economy over the next year, even as any price rises in the country will likely be moderate compared with other advanced economies. Any possible fluctuations in input price levels could make it harder for firms to expand their business aggressively, said Masamichi Adachi, chief economist for Japan at UBS Securities. "Large changes in input prices due to import costs may make it more difficult for companies to manage their operations," Adachi said.

The first preliminary GDP data will be released on February 15th, however there are signs that GDP growth in the last quarter will not be as disappointing as economists expect. For instance, sentiment in the services sector has clearly improved in recent months. The quarterly Tankan survey showed that actual business conditions in the non-manufacturing sector gained 7 points in December compared with three months earlier. Moreover, consumer confidence improved in October and November to levels seen before the outbreak of the pandemic, although remaining low relative to its long-term average. However, activity in the manufacturing sector continues to be affected by supply disruptions and rising production costs that are reducing profit margins. Industrial production growth actually slowed in the three months to October compared to the preceding three-month period.

There is also room for more optimism for 2022. Indeed, growing evidence of the effectiveness of booster shots, combined with Japan's already high vaccination rate, is helping to lift some of the pessimism of last year, and many experts believe that 2022 will be the year when the economy gets back on track as people tap into the savings they've amassed. "Signs of resuscitation have already been visible in the October–December quarter, and we think that this recovery will continue," said Saisuke Sakai, senior economist at Mizuho Research and Technologies, a Tokyo-based think tank. The speed of recovery will depend on how consumption fares. Economists say that although they expect it to gain momentum, it won't reach pre-pandemic levels due to the risks of further coronavirus waves and rising prices, which could dampen consumer sentiment.

Japan's service industry is expected to be the driving force for consumption this year, Sakai said, as more people will dine at restaurants and travel in the first half of the year. Prime Minister Fumio Kishida's administration is considering resuming the "Go To Travel" tourism program early in 2022, in which the government subsidizes a part of individual vacationers' travel costs. However, demand for durable goods, such as home appliances and computers, may be not so strong. During the early stage of the pandemic, demand for those kinds of items saw a boost, since many had to stay home, but that is already starting to wane. Another factor determining the extent of the recovery is how willing people will be to make use of their savings. Households have piled up "an excessive amount of savings during the pandemic; whether they will spend it or not will be a significant point," said Yasunari Tanaka, a researcher at Tokyo-based think tank Mitsubishi Research Institute. According to their estimate, Japan has amassed about ¥40 trillion ($347 billion) in excess savings during the pandemic, thanks in part to the government's ¥100,000 cash handouts to all residents.

There is another looming risk for consumption: rising prices. Import costs for commodities have climbed in recent months, damaging companies' profits and household purchasing power as well as having a knock-on effect on energy costs, given Japan's lack of natural resources. Another risk is the potential threat of further economic fallout from the pandemic due to the rapid global spread of the omicron variant. Economists are still uncertain how omicron, which seems to be even more transmissible than the delta variant, will impact the economy, given that its nature is still not entirely clear.

It seems that Japanese Prime Minister Fumio Kishida faces a 2022 of profound challenges. Between Covid-19 and sluggish economic growth Kishida shouldn't expect many calm moments in the year ahead.

MARKET DEVELOPMENTS

With interest rates and inflation staying low, and recovery from Covid settling in, equities should remain fairly strong.

Table 1: Market Developments

	Market Levels Dec 3	Market Levels Jan 5	Prediction for Dec/Jan 2022/23 Previous Letter	Prediction for Dec/Jan 2022/23 Current View
Share Indices				
UK (FT 100)	7122	7517	12863	12899
US (S&P 500)	4538	4701	5914	7065
Germany (DAX 30)	15170	16272	26001	28541
Japan (Tokyo New)	1958	2039	2624	2569
Bond Yields (government				
UK	0.83	1.13	1.50	2.00
US	1.40	1.73	3.00	2.00
Germany	–0.38	–0.06	0.00	0.00
Japan	0.04	0.13	0.10	0.10
UK Index Linked	–2.67	–2.35	1.00	1.00
Exchange Rates				
UK ($ per £)	1.32	1.36	1.30	1.30
UK (trade weighted)	81.47	82.89	78.8	78.8
US (trade weighted)	104.01	103.13	100.5	100.5
Euro per $	0.89	0.88	0.88	0.88
Euro per £	1.17	1.20	1.14	1.14
Japan (Yen per $)	113.23	115.79	107.5	107.5
Short Term Interest Rates				
UK	0.63	0.63	1.70	1.00
US	0.17	0.18	2.00	1.00
Euro	–0.59	–0.59	–0.10	–0.50
Japan	0.00	0.00	0.10	0.00

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.60	2.6	5.0	64.00		75.20
US	1.99	2.4	5.0	42.90	4.17	56.46
Germany	3.30	1.8	1.6	72.00	4.40	83.10
Japan	1.90	1.5	0.5	24.00	11.03	38.93
UK indexed[2]	–2.35		5.0	16.00		18.65
Hong Kong[3]	2.60	5.2	5.0	5.00	4.17	21.97
Malaysia	3.30	4.5	5.0	64.00	4.17	80.97
Singapore	3.50	3.8	5.0	45.00	4.17	61.47
India	1.40	5.5	5.0	22.00	4.17	38.07
Korea	1.10	3.0	5.0	4.00	4.17	17.27
Indonesia	2.20	5.3	5.0	49.00	4.17	65.67
Taiwan	2.80	3.3	5.0	45.00	4.17	60.27
Thailand	3.20	4.2	5.0	41.00	4.17	56.17

Bonds: Contribution to £ yield of: –

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.13	–8.71		–7.58
US	1.73	–2.74	4.17	3.16
Germany	–0.06	–0.56	4.40	3.78
Japan	0.13	0.25	11.03	11.41

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.63		0.63
US	0.18	4.17	4.35
Euro	–0.59	4.40	3.81
Japan	0.00	11.03	11.03

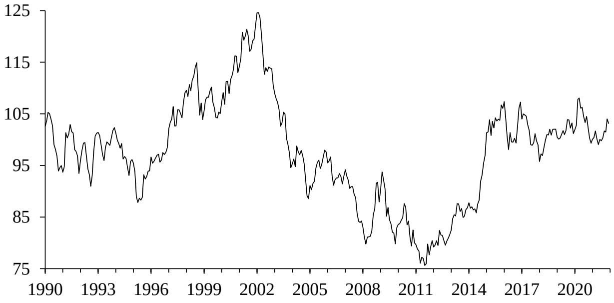
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

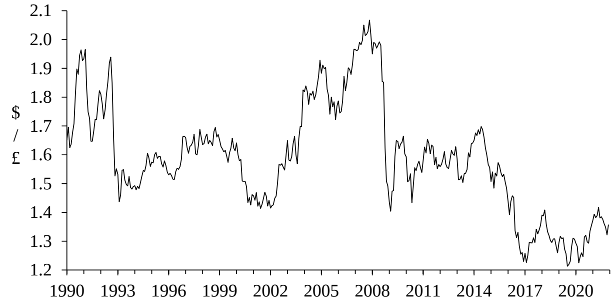
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	December Letter	Current View	December Letter	Current View	December Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-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

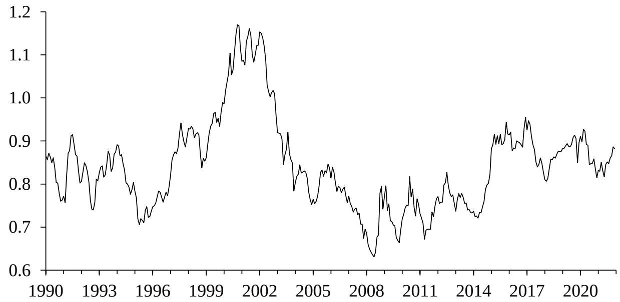
US : Trade Weighted Index
(Bank of England 1990 = 100)



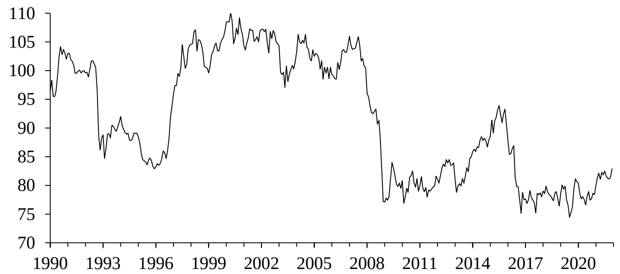
UK: Dollars Per Pound Sterling



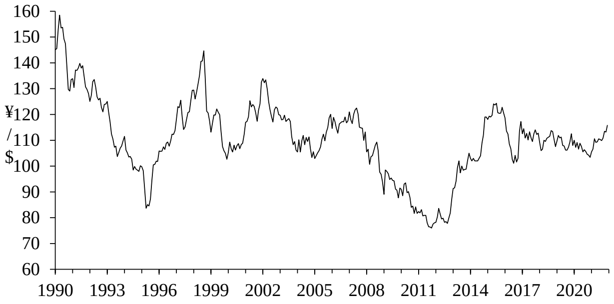
Euro per US dollar



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

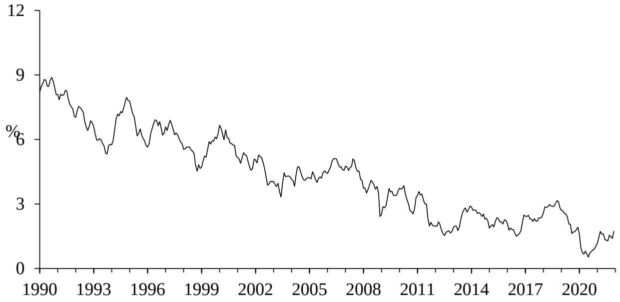


Japan : Yen Per U.S. Dollar

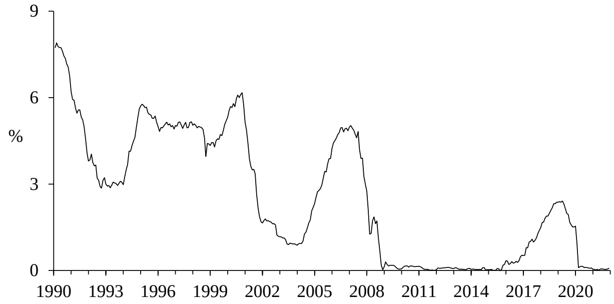


GOVERNMENT BOND MARKETS

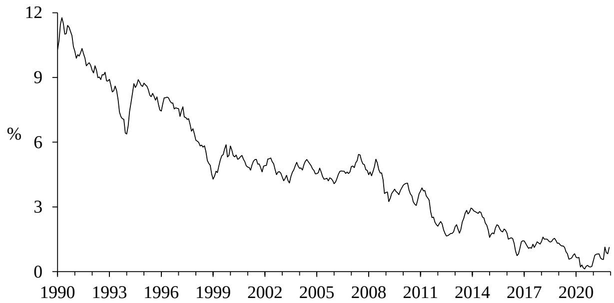
U.S.: Yield on Long-Term Government Bonds



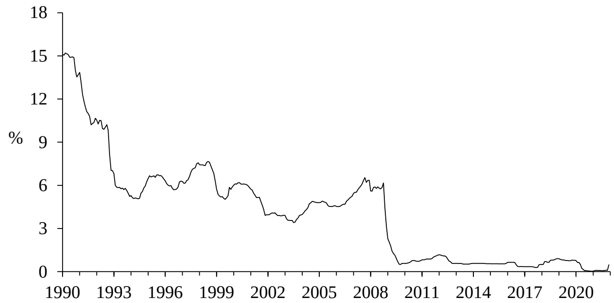
U.S. : 3-Month Treasury Bill



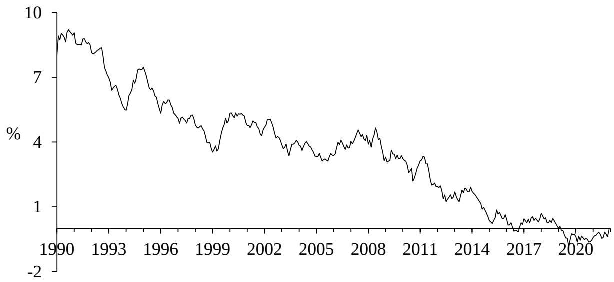
U.K.: Yield on Long-Term Government Bonds



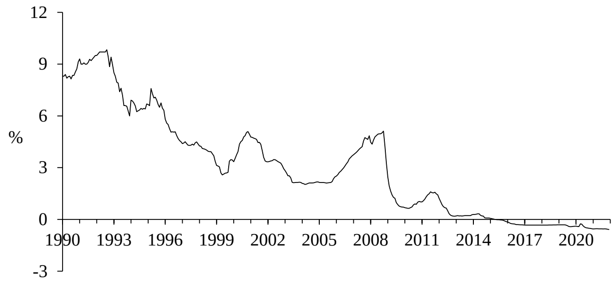
U.K. : 3-Month Certificate LIBOR Rate



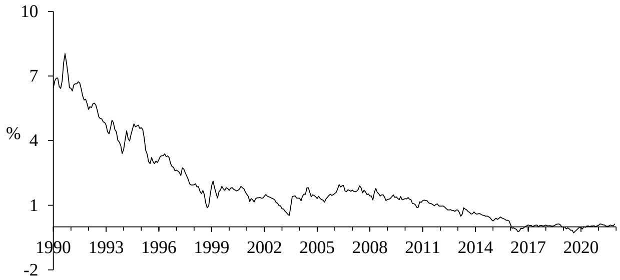
Germany: Yield on Public Authority Bonds



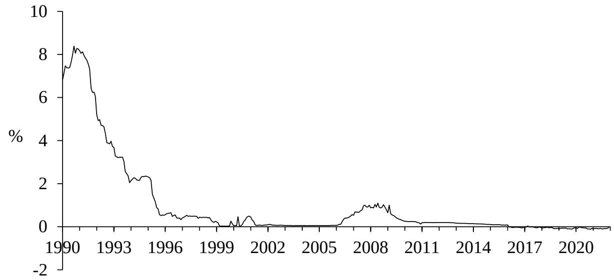
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

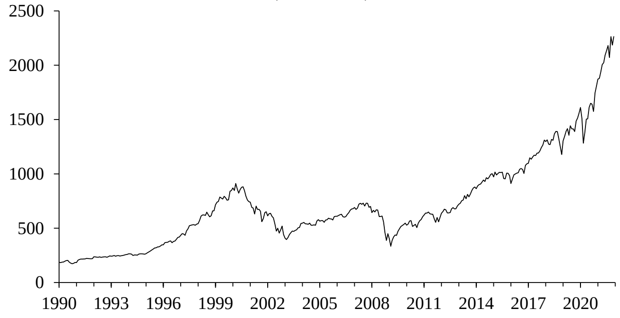


Japan : 3-Month Money Market Rate

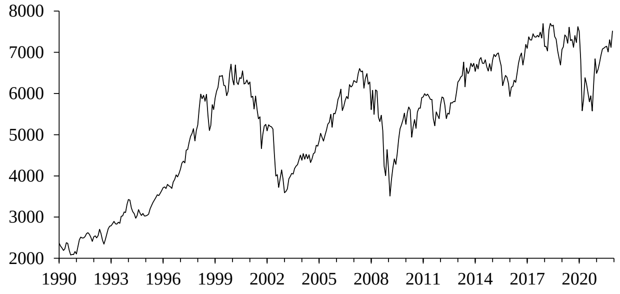


MAJOR EQUITY MARKETS

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

India is passing through the rising cases of the Omicron virus. But less than one in 20 infected patients is in hospital. A South African study offers a possible hint that the pandemic is giving way to endemic now. The Indian government is heavily relying on mass vaccination. More than 1.5 billion jabs are already given, and roughly 60% of eligible people are vaccinated. The government has put some restrictions on the movement of people, but there would not be any lockdown this time. Life is normal in many cities now. Scientific studies confirm that the variant does not cause as severe illness as Delta, and it will have a transitory effect on the economy.

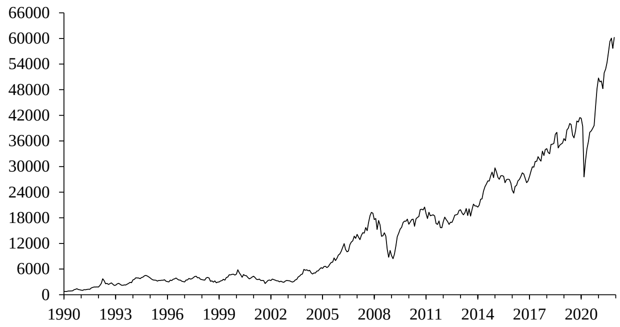
The Indian economy is expected to surpass the pre-pandemic level by growing at 9.2% in the fiscal year ending March 31, 2022, according to the first Advance Estimates released by the National Statistical Office (NSO). In the preceding year, the economy contracted 7.3%. For the second quarter of the financial year, GDP grew by 8.4% from a year ago, one of the fastest rates among major economies. For FY23, we expect the economy to grow 7.5%. An Indian rating agency and some investment banks expect the economy to grow between 8% and 9% in the next financial year. Consumption demand has been improving, and rural demand is showing resilience. Urban demand has also shown signs of strengthening. However, there is a clear K-shaped divergence amongst the formal and informal parts of the economy, and the larger companies are gaining market share at the cost of the small companies. The visibility of tax revenue growth will see more financial support to the infrastructure sector in 2022. Further, the central government would transfer substantial funds on a cash flow basis to provincial governments, which would offer the states a softer landing. This would bolster state spending, a key engine of growth and confidence in the economy.

Services Purchasing Managers' Index turned out to be 55.5 in December from 58.1 in November, the lowest since September but still well above the 50-mark that separates growth from contraction.

Business confidence was at a four-month high in December on robust demand.

Consumer prices in rural India grew at 4.29% in November, while it was 5.54% in urban areas. Retail inflation had risen to 4.48% in October from 4.35% in September. The high-base effect plays a crucial role in keeping headline CPI inflation lower than last year. In the coming months, we expect non-food inflation to remain under pressure as commodity prices remain elevated and producers pass

India: BSE Sensex



through high input costs to consumers amid improving demand conditions.

As expected, India's central bank held its key policy rate steady in December. It maintained its policy repo rate at 4.00% and its reverse repo rate at 3.35%. The Reserve Bank of India is not expected to raise interest rates until the next quarter, as inflation has been within its 2–6% target range since July. As we advance, we expect 50 basis points increase in the repo rate by December 2022, keeping in line with the US Fed fund rates, as this would not depreciate INR more than the difference between the productivity of the two economies.

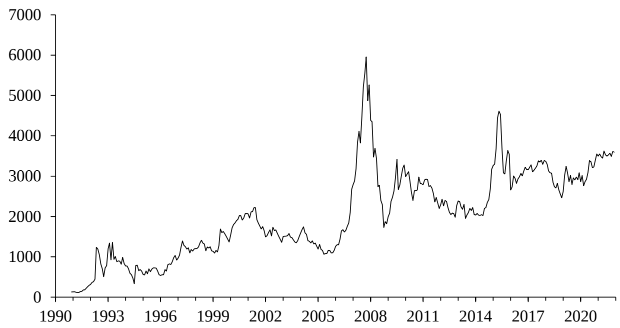
India's current account balance surprised on the negative side by recording a deficit of US$9.6bn, or -1.3% of GDP, in Q2FY22 versus a surplus of US$6.6bn, or +0.9% of GDP, in the preceding quarter. A 45% QoQ increase primarily led to the merchandise trade deficit due to a strong surge in imports (17% QoQ), partly offset by 8% QoQ growth in exports. While imports witnessed a strong rebound due to the rising commodity prices and recovery in consumer demand, exports exhibited resilience on persistent traction in economic activities of advanced economies. The capital account recorded a substantial surplus of US$40bn, +57% QoQ, as better foreign portfolio inflows and a one-time SDR allocation of US$17.9bn by the IMF more than made up for muted foreign direct investment inflows. This translated into a Balance of Payment (BoP) surplus of US$31.2bn in Q2FY22. Excluding the SDR allocation, the BoP surplus was much lower at US$13.3bn.

India is charging full steam ahead on a host of free trade agreements that have been under negotiations for some time now to take full advantage of the China+1 policy being followed by many multination organizations. The government is close to concluding an interim trade deal with Australia, while trade negotiations with the United Kingdom begin this month. Talks on the proposed comprehensive Trade Partnership agreement with the UAE are also close to conclusion. Meanwhile, India is also set to launch trade negotiations with Canada and Israel soon.

The Indian rupee has held around Rs75 against the US dollar. Going ahead, the Indian Rupee is most likely to face depreciating pressures on account of the widening trade deficit coupled with a divergent policy stance between the Fed and the RBI. However, adequate foreign exchange reserves (US$634bn as of December 31, 2021) should curtail volatility and limit depreciating bias.

	20–21	21–22	22–23	23-24	24-25
GDP (%p.a.)	-7.3	9.2	7.5	6.4	6.5
WPI (%p.a.)	5.5	6.0	5.5	5.3	5.1
Current A/c(US$ bill.)	35.0	-45.0	-30.0	-30.0	-30.0
Rs./$(nom.)	75.0	74.0	75.0	76.0	77.0

China: SSE Composite Index



China

China's Covid Zero strategy appears increasingly untenable. Beijing's implausible zero-Covid policy continues to weigh on the economy as officials impose draconian lockdowns with no warning whenever cases pop up. China's latest outbreak shows no signs of easing. The country is largely safe from the highly virulent omicron strain as yet, partly due to border controls. But that too could change, as thousands of athletes descend in Beijing to participate in the winter Olympics.

China shifted its focus back to keeping growth stable as a string of policies to curb debt and speculation have triggered a sharp economic slowdown, particularly in the property market. China has ordered banks to start lending to the property market.

Every year China's top leadership gets together and hashes out economic priorities for the coming twelve months at the Central Economic Work Conference. The communiqué from this year's conference, which wrapped up on December 10, was unusually explicit: the terms "stable," "steady," or "stabilize" were mentioned roughly twice as many times as last year. Over the past several weeks, it also follows a clear shift toward more stimulative monetary policy and less restrictive property policies. The communiqué instructed all local officials to shoulder responsibility for stabilizing the economy, to front-load policies when appropriate, and called for quickening fiscal expenditure in general. But it also called for resolutely containing off-balance-sheet government debt and financial discipline. These mixed messages come as local governments are under significant financial pressure due to collapsing land sales.

Given the above long-term economic goals, the Chinese Academy of Social Sciences, a government think tank, recommended that the government set an economic growth target of about 5% and a target of around 3% for consumer inflation for next year. In 2022, the government may take one step back and avoid causing too much collateral damage but keep the long-term goals intact.

With these goals, the earlier policy of liberal market forces to determine outcomes are put on the back burner. China is increasingly asserting that political bosses will make decisions about market share, access to capital, control of all the industries that are re-regulated. Chinese policymaking is more opaque, and it becomes less predictable when it tries to avoid collateral damages.

China's GDP is set to grow 8% in 2021, and we forecast a growth rate of 5.2% in 2022. Even though China is facing many headwinds and its zero Covid policy is not helping economic growth, it will only slow down to 5.2% in the current year.

China's official manufacturing purchasing managers' index rose to 50.3 in December, up from November's 50.1. The improved PMIs showed market confidence was boosted by recent easing moves and top leaders' pledge to prioritize stability. But it doesn't mean major economic indicators will soon end their downward course. Consumption and investment will continue to be dragged down by the continuing property-sector slump, as well as the likelihood of more Covid-19 shocks and slower government spending.

The producer-price index rose 12.9% from a year earlier in November, down from 13.5% growth in October, the fastest increase since 1995. The consumer price index (CPI) rose 2.3% year-on-year, slower than expectations for a 2.5% rise but picking up from 1.5% in October. Consumer inflation remains modest as strict COVID-19 curbs impede consumption and weigh on demand, pointing to a limited pass-through from high factory gate prices.

China's central bank cut the one-year loan prime rate amid a slowing economy that has been dragged by a slump in the property sector. The one-year loan prime rate (LPR) was lowered to 3.80% from 3.85%, and the five-year LPR remained at 4.65%. The last time the central bank cut the LPR was April last year when the pandemic shock hit the economy.

The coronavirus's Omicron variant outbreak may have a complicated impact on China's foreign trade. It may keep demand for Chinese goods high as many economies are hit hard again by the new variant. The possible spread of Omicron in Chinese ports may add to logistics strains.

China's imports increased 31.7% on year in November. That compared with a 20.6% increase in October. China's trade surplus stood at $71.72 billion in November, narrowing from October's $84.5 billion.

China joins US allies, including Japan and Australia, in a new Asia-Pacific trade agreement with the US watching from the sidelines. The new Regional Comprehensive Economic Partnership, or RCEP, will eventually eliminate more than 90% of tariffs on commerce among its 15 member countries. This will be a boon to trade in the region. The RCEP will benefit China by making its parts and components more attractive to factories that make up supply chains in Southeast Asia and boosting trade with Japan and South Korea. The RCEP was initiated in 2012 by the Association of Southeast Asian Nations to strengthen ties with China and other nations in Asia.

The Chinese yuan has been a surprise winner in 2021, making steady gains against the dollar for the last two years, even as China's economy has been faltering. That is unlikely to last. There have been a few key factors propping up the yuan. First is China's robust trade surplus. A vast, pandemic-related shift in Western demand for goods over services massively favoured China, still the world's factory floor even after years of trade tensions.

What is more, Covid-19 breakouts elsewhere have frequently shut down production and port activity in rival exporting nations such as Vietnam, increasing the world's reliance on Chinese manufacturing. Second, China's heavy hand against Covid-19 at home has kept domestic consumption suppressed, putting a lid on imports. We expect the yuan to strengthen to 6.3 per dollar in the first few months of next year and gradually settle below 6.4 per dollar in 2022.

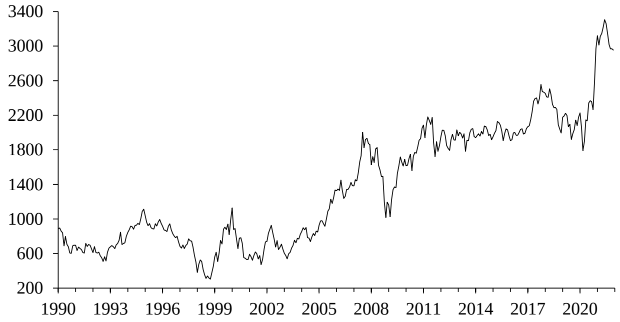
China has released pilot versions of its digital yuan wallet application on mobile phone app stores as its central bank pushes its digital currency. The "e-CNY (Pilot Version)" app, developed by the People's Bank of China's (PBOC) digital currency research institute, is available for download on Chinese Android and Apple app stores.

	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	2.3	8.0	5.2	5.0	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	6.4	6.4	6.3

South Korea

South Korea expects to continue its economic recovery in 2022 after finishing 2021 on a high note despite challenges from the Covid-19 pandemic. The gross domestic product of Asia's fourth-largest economy is expected to grow 3% in 2022, led by improving private consumption and brisk exports. The services sector is expected to recover faster, and exports of memory chips are likely to remain firm on increasing global trade.

Korea: Composite Index



Growth is expected to moderate from this year's estimated 4% expansion, which is coming off a low base in 2020 when the economy contracted 0.9% amid the worst of the pandemic. The country's legislature approved an increased stimulus budget for next year to quicken the economic recovery.

South Korea's inflation topped 3% for a third straight month in December, as still-high commodity prices, ongoing supply issues, and resilient domestic demand all worked to lift consumer prices.

Consumer prices rose 3.7% from a year earlier, far exceeding the Bank of Korea's 2% target. South Korea's headline inflation averaged 2.5% in 2021 after remaining above the central bank's annual 2% target for a ninth consecutive month in December. Inflation is forecast to moderate to 2.2% in 2022. The Bank of Korea has signalled it would tighten policy further to curb inflation since it raised interest rates in November for the second time in 2021.

Consumer price inflation is expected to fall somewhat to a level close to the target level of 2.2%. However, it should be noted that inflationary pressures could be more significant than expected, partly due to prolonged global supply bottlenecks, expanded demand-side pressures, and rising inflation expectations which remain on the central bank's radar.

The government expects exports to reach an annual record of $656 billion in 2022, up from an estimated $643 billion in 2021. South Korea's exports grew 25.8% in 2021 on brisk demand for semiconductors, petrochemicals, and other goods, with its annual shipment growth at an 11-year high. South Korea's export growth eased substantially in December and is set to slow further in 2022 as external demand normalizes and the base of comparison becomes less favourable.

Imports rose 37.4% to $61.32 billion after a 43.6% jump in November, resulting in a trade deficit of $586 million. Exports expanded 25.8% to an annual record of $645 billion for the whole year, while imports grew 31.5% to $615 billion. The trade surplus stood at $30 billion in 2021. The government expects the country's current account surplus to narrow $80 billion in 2022 from an estimated $91 billion in 2021, as imports are likely to outpace exports.

	20	21	22	23	24
GDP (%p.a.)	-0.9	4.0	3.0	2.5	2.3
Inflation (%p.a.)	0.5	3.7	2.2	2.5	2.0
Current A/c(US$ bill.)	70.0	91.0	80.0	40.0	35.0
Won/$(nom.)	1070	1150	1170	1200	1210

Taiwan

Taiwan's GDP is likely to grow 6.1% in 2021, and Taiwan will post 3.6% GDP growth in 2022. The main drivers of growth in 2021 have been private investment, exports, and a spurt in investment. The business activities in Taiwan are likely to continue to pick up as the world gradually adapts to the existence of COVID-19, which is expected to prompt companies in the country to invest more to meet growing global demand.

Taiwan's consumer prices rose 2.6% in December from a year earlier, remaining above the government's 2% inflationary alert level for the fifth consecutive month. The inflation was mainly driven by an increase in the price of airline tickets, fruit, vegetables, eggs, meat, and clothing. We forecast an increase in domestic inflation of 2.2% for 2022. The rapid spread of the Omicron COVID-19 variant in many countries is affecting the global supply chain, putting immense pressure on logistics and the production system and causing an imbalance between supply and demand. If inflation gets worse in the United States — a major trading partner of Taiwan — domestic inflation is unlikely to ease.

Taiwan's central bank kept its benchmark rate at a record low as economic recovery across industries remains uneven, while inflation is mainly under control. It kept its benchmark discount rate at 1.125%. It also maintained the secured loan rate at 1.50% and kept the unsecured loan rate at 3.375%. Taiwan has kept its key interest rates unchanged since March 2020, when it cut rates for the first time in nearly four years at the peak of the pandemic's economic impact.

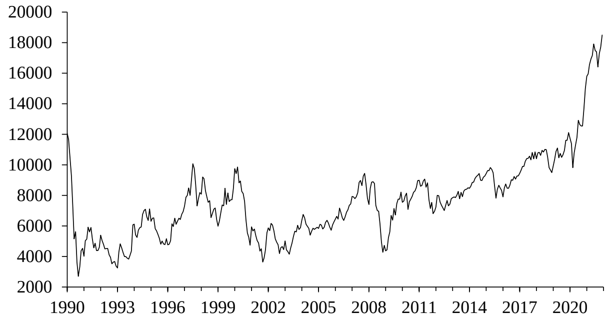
"Monetary policy is moderately loose now, but it will move toward tightening next year," Governor Yang Chin-long said at a briefing after the decision, adding that the timing of a hike is flexible. This implies that the bank would adjust monetary policy in a "timely manner" if needed, given uncertainties in global inflation. We expect the bank to raise borrowing costs twice in 2022, with one 12.5 basis-point hike to 1.25% in the third quarter of 2022. The benchmark rate will likely be raised again to 1.375% in the fourth quarter. This would be in line with the US Fed fund rates increases.

Exports have soared all year and hit a record $41.5 billion in November. In the first 11 months of this year, the country's exports hit US$405.8 billion, up 30% from a year earlier. Imports reached US$346.2 billion, up 33.8% from a year earlier, with a trade surplus rise to a total of US$59.6billion.

Taiwan's nominal effective exchange rate has hit multiple record highs this year, and the exchange rate to the US dollar has consistently hovered close to a 24-year high.

Brazil: Bovespa

Taiwan: Weighted TAIEX Price Index



The Taiwan dollar got a boost from the country's strong export performance and became the strongest currency in Asia last year, after soaring almost 3% against the US dollar in 2021.

The Taiwan dollar benefited from Taiwan's strong export growth as global demand for tech gadgets remained solid on the back of emerging technologies such as 5G applications, high-performance computing devices, the Internet of Things, and automotive electronics.

In addition, old-economy industries, including steelmakers, also saw a robust cyclical recovery, which pushed up exports further and in turn paved the path for a higher Taiwan dollar.

	20	21	22	23	24
GDP (%p.a.)	3.1	6.1	3.6	3.2	2.8
Inflation (%p.a.)	-1.0	2.6	2.2	1.8	1.6
Current A/c(US$ bill.)	71.0	90.0	100.0	65.0	60.0
NT$/$(nom.)	29.0	27.5	27.2	27.0	27.0

Brazil

Brazil's GDP is expected to grow 4.4% in 2021 and expand by 1% in 2022. Since 2022 is an election year, there can be more volatility. However, the economy should benefit from the normalization of public services — still running below pre-pandemic levels — and a few industrial sectors, primarily those connected to investments, like the construction market chain and capital goods.

Seeking a popularity boost, Bolsonaro has nearly doubled the average welfare payment for low-income families to 415 reais ($72) a month and moved to expand the number of eligible recipients.

However, a jump in social spending may only further fuel inflation.

Brazil's annual inflation rate hit an 18-year high of 10.74% in November, although the monthly rate fell slightly, showing the Central Bank's aggressive tightening cycle may be starting to work. The worst drought in almost a century has contributed to inflation, drying up hydroelectric reservoirs and adding to demand at more-expensive thermal plants. The future interest-rate increases in the US risk boosting inflation further in Brazil.

Brazil's history of hyperinflation makes it harder to fight rising prices today. One relic is indexation, under which the country links costs such as wages to inflation to protect the purchasing power of companies and average Brazilians amid spiralling prices.

The downside is that temporary price shocks — such as those affecting the global economy — end up sticking. A temporary surge in the price of oil, for example, increases wages and boosts demand for other goods.

Brazil's central bank raised its benchmark lending rate by 1.5 percentage points to 9.25% and signalled another increase of the same size at its next meeting in February as consumer prices continue their rapid rise. The central bank faces the complicated task of slow galloping price increases, and tame inflation expectations, just as Brazil's economy has begun to struggle following a post-lockdown recovery.

Brazil swung to a trade surplus in December from a deficit in November as exports surged and imports declined. In 2021, Brazil posted a trade surplus of $61 billion, with exports of $280.4 billion and imports of $219.4 billion.

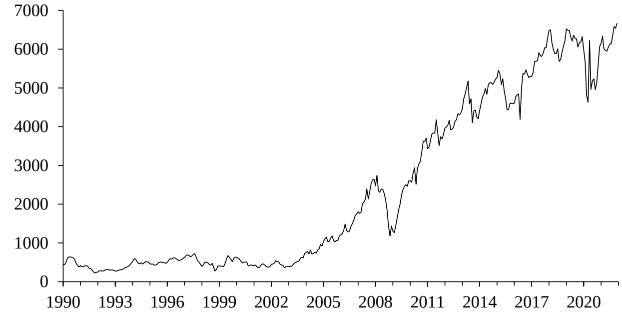
A sharp 25% depreciation in the Brazilian real over the past two years has increased the price of imported goods and fuel. President Jair Bolsonaro's efforts to boost spending for the poor before the election, at the expense of the country's fiscal health, are partly to blame for the currency weakness.

	20	**21**	**22**	**23**	**24**
GDP (%p.a.)	-4.5	4.4	1.0	2.0	2.0
Inflation (%p.a.)	4.5	8.5	4.5	4.0	4.0
Current A/c(US$ bill.)	-7.6	-10.0	-16.0	-22.0	-20.0
Real/$(nom.)	5.5	5.2	5.5	5.5	5.6

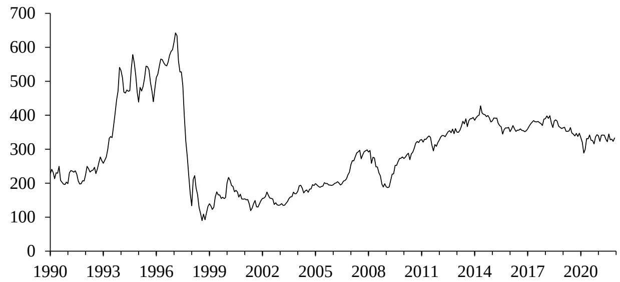
Other Emerging Markets

Hong Kong: FT-Actuaries

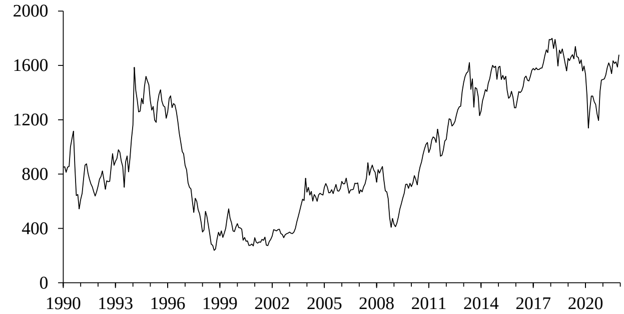
Indonesia: Jakarta Composite



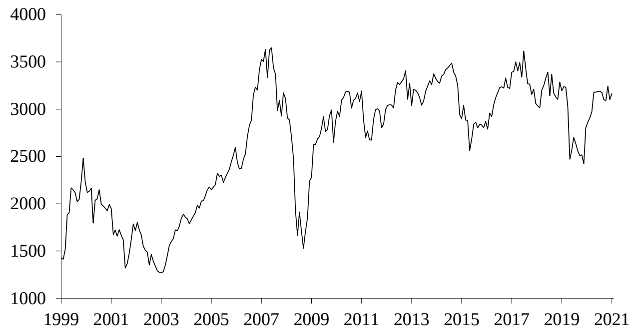
Malaysia: FT-Actuaries (US$ Index)



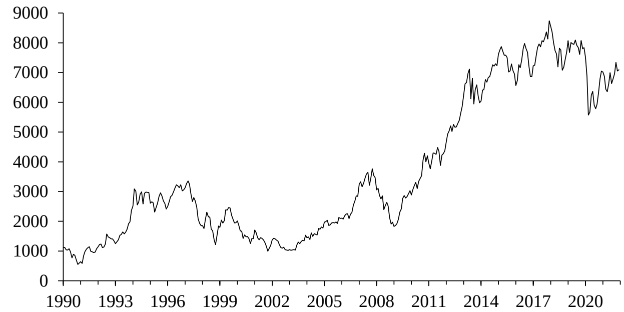
Thailand: Composite Index



Singapore: Straits Times Index

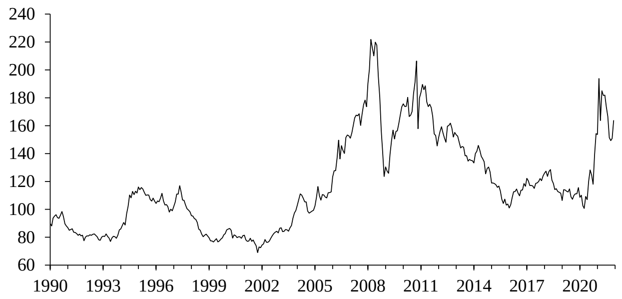


Philippines: Manila Composite

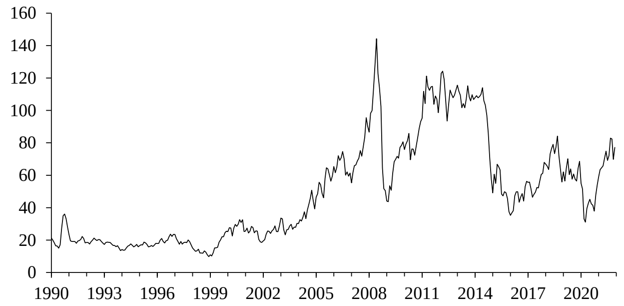


COMMODITY MARKETS

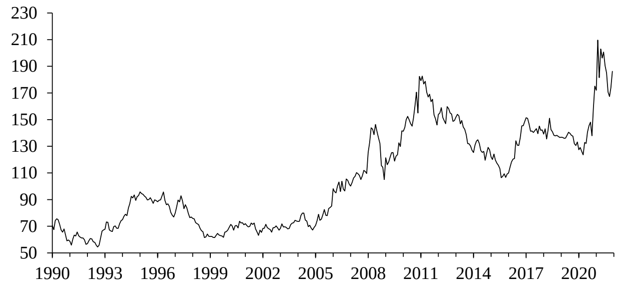
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



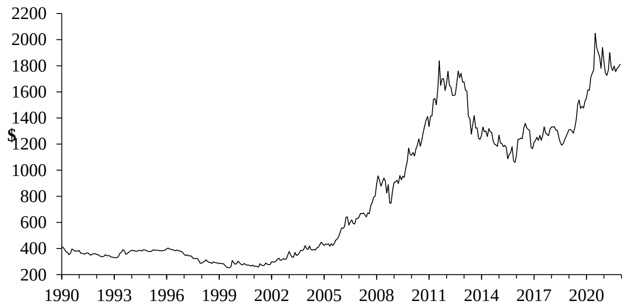
Oil Price: North Sea Brent (in Dollars)



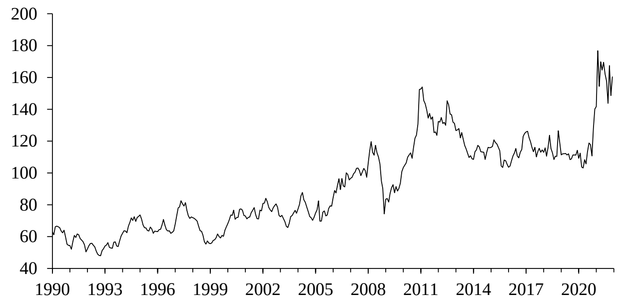
Commodity Price Index (Sterling)
(Economist, 2015 = 100)



Gold Price (in Dollars)



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



UK FORECAST DETAIL

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

	Inflation %[1] (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100) [2]	Real Exchange Rate[3]	Real 3 Month Int. Rates %[4]	Inflation (RPIX)	Real Short Dated Rate of Interest[5]
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	2.3	0.3	0.1	81.0	77.4	-4.1	4.0	-3.9
2022	5.0	1.1	0.7	78.5	77.6	-4.0	6.7	-3.6
2023	4.3	2.5	1.4	77.5	78.9	-2.1	5.7	-1.0
2024	3.2	3.0	2.9	77.1	80.0	0.5	4.3	0.6
2021:1	0.9	0.2	0.1	80.7	76.2	-3.2	1.4	-3.1
2021:2	2.1	0.4	0.1	81.7	77.6	-3.9	3.4	-3.6
2021:3	2.7	0.3	0.1	81.8	78.7	-4.5	4.5	-4.3
2021:4	3.5	0.4	0.2	79.8	77.0	-4.8	6.7	-4.6
2022:1	4.8	0.5	0.3	79.0	77.3	-4.7	7.0	-4.5
2022:2	5.0	0.7	0.7	78.7	77.3	-4.1	6.7	-4.1
2022:3	5.0	1.2	0.8	78.0	77.3	-3.8	6.5	-3.4
2022:4	5.1	2.0	1.0	78.2	78.4	-3.3	6.5	-2.3
2023:1	4.8	2.0	1.0	77.6	78.7	-2.9	6.4	-1.9
2023:2	4.4	2.5	1.2	77.6	78.7	-2.4	6.0	-1.1
2023:3	4.0	2.5	1.5	77.2	78.7	-1.9	5.5	-0.9
2023:4	3.8	3.0	2.0	77.5	79.7	-1.2	5.0	-0.2

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	6.1	4.6	1.3	155.3
2022	310.2	4.8	4.9	1.5	155.0
2023	324.6	4.6	3.6	1.0	155.5
2024	338.7	4.4	2.8	0.7	157.4
2021:1	292.1	4.5	4.7	1.4	155.3
2021:2	289.7	7.3	4.5	1.3	153.4
2021:3	298.4	7.1	4.5	1.3	155.5
2021:4	304.0	5.5	4.6	1.4	157.0
2022:1	305.6	4.6	5.0	1.5	155.0
2022:2	303.4	4.7	5.0	1.5	152.9
2022:3	312.3	4.7	5.0	1.5	155.0
2022:4	319.6	5.1	4.7	1.4	157.0
2023:1	321.2	5.1	4.2	1.2	155.5
2023:2	316.8	4.4	3.6	1.0	152.9
2023:3	325.8	4.3	3.4	0.9	155.4
2023:4	334.4	4.6	3.2	0.9	158.3

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	151.3	724452.0	427617.5	255473.0	199184.4	-33404.9	124418.0
2021	161.5	773430.7	444381.6	278695.0	211525.7	-29492.9	131678.7
2022	170.6	817215.5	466389.4	286916.0	224211.8	-23600.0	136701.7
2023	175.6	840913.4	480433.8	287796.4	230958.3	-18612.3	139662.8
2024	179.4	858903.3	494089.1	285247.4	237888.0	-15890.6	142430.6
2019/18	1.4		0.3	3.1	3.0		-0.1
2020/19	-9.9		-10.1	-17.3	-4.8		5.0
2021/20	6.7		4.8	13.0	6.6		5.8
2022/21	5.7		5.0	2.7	6.0		3.8
2023/22	2.9		3.0	0.1	3.0		2.2
2024/23	2.1		2.9	-0.9	3.0		2.0
2021:1	154.0	184353.8	105676.5	72020.2	51082.9	-12804.4	31621.4
2021:2	162.4	194420.4	107095.1	72112.9	51382.2	-3077.5	33092.3
2021:3	164.2	196612.6	112840.6	71080.8	52882.5	-6641.1	33550.2
2021:4	165.4	198044.0	118769.3	63481.1	56178.1	-6969.9	33414.6
2022:1	167.9	201014.9	111605.2	80613.2	54149.8	-10996.2	34357.1
2022:2	169.9	203457.2	113521.3	72071.6	54465.3	-2834.6	33766.4
2022:3	171.6	205461.7	115429.0	73573.5	56068.1	-5094.0	34514.9
2022:4	173.1	207281.7	125833.7	60657.7	59528.5	-4675.2	34063.0
2023:1	173.8	208090.7	114937.8	83267.9	55769.9	-11225.2	34659.7
2023:2	175.3	209926.7	116926.9	74469.1	56099.2	-2732.1	34836.4
2023:3	176.0	210739.5	118895.3	71382.2	57753.0	-2249.2	35041.8
2023:4	177.2	212156.4	129673.9	58677.2	61336.2	-2405.7	35125.2

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	2.3	2166.6	49.1	-89.1
2020	15.9	1990.1	306.6	-58.2
2021	7.9	2281.4	178.7	-48.3
2022	2.3	2504.7	56.8	-36.0
2023	1.6	2668.7	41.4	-24.3
2024	0.7	2812.3	18.5	-17.0
2021:1	8.7	517.9	44.8	-21.3
2021:2	11.6	549.3	63.5	-18.8
2021:3	8.2	562.3	46.3	-8.0
2021:4	6.3	575.0	36.1	-0.1
2022:1	5.5	594.7	32.8	-17.6
2022:2	2.2	606.0	13.5	-18.9
2022:3	2.4	621.3	14.6	-4.9
2022:4	2.4	633.1	14.9	5.4
2023:1	2.1	644.3	13.8	-18.5
2023:2	1.8	652.1	11.6	-19.1
2023:3	2.2	661.1	14.3	1.9
2023:4	1.2	672.2	8.1	11.4

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2018	2019	2020	2021	2022	2023
U.S.A.	2.9	2.3	–3.4	5.6	4.0	3.0
U.K.	1.3	1.4	–9.9	6.7	5.7	2.9
Japan	0.6	0.0	–4.7	2.7	2.2	2.0
Germany	1.1	1.1	–4.6	2.5	3.8	2.5
France	1.8	1.8	–8.0	6.4	3.3	2.3
Italy	0.9	0.4	–8.9	6.2	4.1	2.1

Growth Of Consumer Prices

	2018	2019	2020	2021	2022	2023
U.S.A.	2.4	1.8	1.2	4.6	4.6	3.8
U.K.	2.4	1.7	1.0	2.3	5.0	4.3
Japan	1.0	0.5	0.0	–0.2	0.5	0.8
Germany	1.8	1.4	0.5	3.1	2.7	2.5
France	1.9	1.1	0.5	1.8	2.2	2.1
Italy	1.2	0.6	–0.2	0.8	1.9	2.3

Real Short-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	0.6	0.3	–4.5	–4.5	–3.3	–1.5
U.K.	–1.1	–0.7	–1.3	–4.1	–4.0	–2.1
Japan	–0.4	0.1	0.2	–0.6	–0.8	–0.7
Germany	–1.7	–0.9	–3.5	–3.3	–2.6	–2.2
France	–1.4	–0.9	–2.2	–2.8	–2.2	–1.9
Italy	–0.9	–0.2	–1.2	–2.5	–2.4	–2.1

Nominal Short-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	2.4	1.5	0.1	0.1	0.5	1.5
U.K.	0.7	0.8	0.2	0.1	0.7	1.4
Japan	0.1	0.1	0.1	0.0	0.1	0.1
Germany	–0.3	–0.4	–0.5	–0.6	–0.1	0.1
France	–0.3	–0.4	–0.4	–0.6	–0.1	0.1
Italy	–0.3	–0.4	–0.4	–0.6	–0.1	0.1

Real Long-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	–0.5	–1.5	–2.8	–1.7	–0.9	1.2
U.K.	–1.7	–0.5	–1.4	–3.9	–3.6	–1.0
Japan	–0.6	–0.4	–0.5	–0.7	–0.9	–0.9
Germany	–1.8	–2.4	–3.0	–2.6	–2.2	–1.9
France	–0.8	–1.6	–2.3	–2.1	–1.8	–1.6
Italy	1.7	0.0	–1.1	–1.2	–0.9	–0.6

Nominal Long-Term Interest Rates

	2018	2019	2020	2021	2022	2023
U.S.A.	2.7	1.9	0.9	1.5	1.8	3.5
U.K.	1.0	0.6	0.1	0.3	1.1	2.5
Japan	0.0	0.0	0.1	0.1	0.1	0.1
Germany	0.2	–0.2	–0.6	–0.3	0.0	0.2
France	0.7	0.1	–0.3	0.0	0.2	0.4
Italy	2.8	1.4	0.7	0.9	1.2	1.4

Index Of Real Exchange Rate(2000=100)[1]

	2018	2019	2020	2021	2022	2023
U.S.A.	95.1	97.8	99.3	96.7	95.9	95.4
U.K.	76.9	73.8	72.9	77.4	77.6	78.9
Japan	59.4	61.2	61.8	56.6	54.0	52.1
Germany	97.6	96.2	97.2	98.2	96.1	95.4
France	97.9	96.5	97.3	96.7	96.2	95.7
Italy	103.2	101.0	101.5	101.3	101.7	101.1

[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]	118.54	122.51	124.77	119.15	117.42	116.87
U.K.	1.34	1.28	1.28	1.38	1.39	1.40
Japan	110.43	109.03	106.79	109.76	109.50	108.10
Eurozone	0.85	0.89	0.88	0.85	0.88	0.87

[1] The series for the USA is a trade weighted index (2010=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model