LIVERPOOL INVESTMENT LETTER

June 2021

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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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THE OUTLOOK TO BE REVEALED IS MUCH BETTER THAN THE CONSENSUS EXPECTED

It has been fashionable among forecasters to take a negative view of the UK. This attitude comes from the widespread hostility of both the business and the official forecasting community to Brexit; as we know, this hostility was consistent with the strong business and civil service interests in remaining inside the EU, so continuing protection and easily-lobbied regulation, as well as official opportunities for promotion.

However, the post-Covid situation will be one of strong rebound, in which the UK, thanks to a highly successful vaccination strategy, will grow considerably faster than most other major countries. The negative Remainer commentary will continue, nevertheless, shifting its focus to trade and productivity; this is exemplified in the FT columns of Martin Wolf and others.

The trade negotiations with Australia will be a pivotal moment. It seems that Boris Johnson's government has decided to reach agreement in spite of strong complaints from the farming lobby. So much comment on FTAs misguidedly focuses on the size of new market access for UK producers; but the key gain for the UK is hiding in plain sight — namely, lower prices for consumers and increased competition on producers, forcing higher productivity. As we stated frequently in the Brexit campaign, only some 10% of UK residents work in protected industries, the other 90% have an overwhelming interest in lower prices, particularly poorer people for whom food prices contribute more to their budget. So the government's determination to free trade with Australia is not just good economics but also excellent politics — notably in 'red wall' areas of the country.

The FTA with Australia is just the first. Others will continue with other countries on the Pacific Rim, primarily, leading it is hoped to full membership of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). This should eventually include the US, besides the existing members NZ, Japan and the other SE Asian growth tigers like S Korea and Vietnam. These countries can supply food and manufactures at the most competitive world prices, bringing yet further benefits to our consumers. As for our producers, they will gain from higher productivity and from long term links to and competition with the fastest-growing markets in the world.

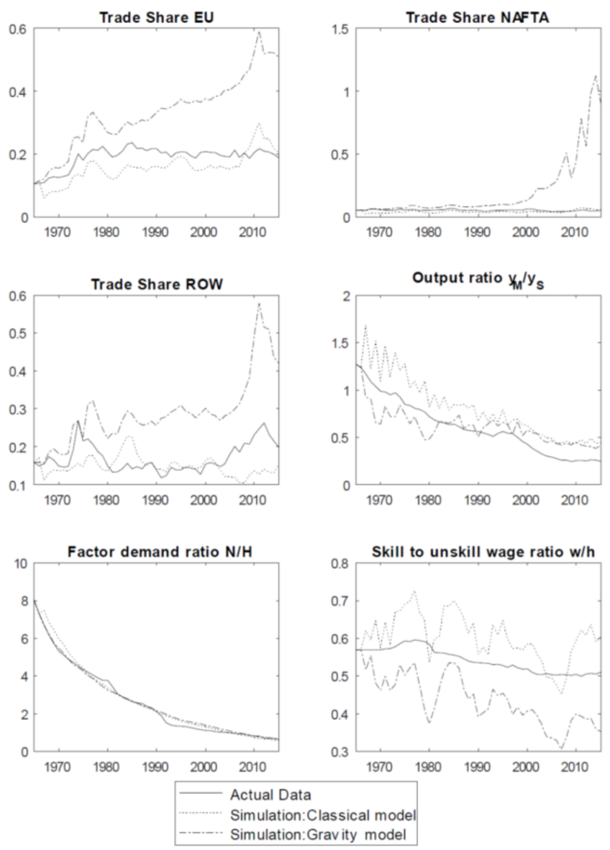
It has been the 'gravity' modelling by Remainer trade economists that have damned these gains relative to supposed losses from reduced trade with the EU. Yet our work on these models compared with the 'classical' one we have used based on comparative advantage shows that the facts of world trade lie far closer to our classical than to the gravity model for the UK; and that this extends also to other major countries and groups including the US, China and the EU. These tests compare the simulated behaviour of our models with the actual behaviour of the data. The latter's probability under the model can be assessed from this comparison. Basically, one can see how well the two models do by comparing the trends in the data with the average simulated trends from the model. The charts below show this for the UK. If you examine the trade shares, you can see that the average gravity simulations depart sharply from the data, while the classical broadly mirror the data.

Table 1: Summary of Forecast

	2018	2019	2020	2021	2022	2023	2024
GDP Growth[1]	1.3	1.4	-9.9	7.9	8.2	2.6	1.8
Inflation CPI	2.4	1.8	1.0	1.6	5.0	4.0	3.0
Wage Growth	3.0	3.5	1.5	3.8	6.0	5.3	4.2
Survey Unemployment	4.1	3.8	4.5	6.1	5.2	3.6	2.8
Exchange Rate[2]	78.6	78.3	78.0	80.4	78.8	78.0	77.8
3 Month Interest Rate	0.4	0.8	0.2	0.2	1.5	4.5	5.0
5 Year Interest Rate	1.0	0.6	0.3	0.5	1.5	4.7	5.0
Current Balance (£bn)	-82.9	-89.1	-58.4	-49.3	-36.3	-24.4	-17.2
PSBR (£bn)	39.3	49.1	313.4	138.4	57.9	42.4	23.7

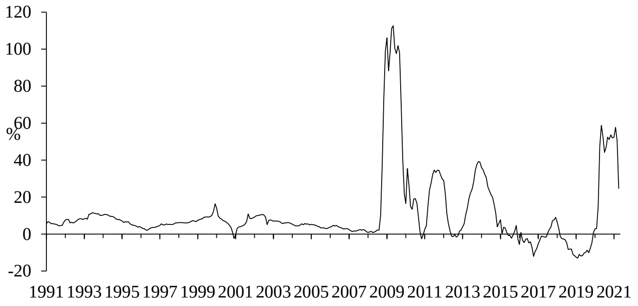
[1]Expenditure estimate at factor cost
[2]Sterling effective exchange rate, Bank of England Index (2005 = 100)

Figure 2: Actual and average of simulated data

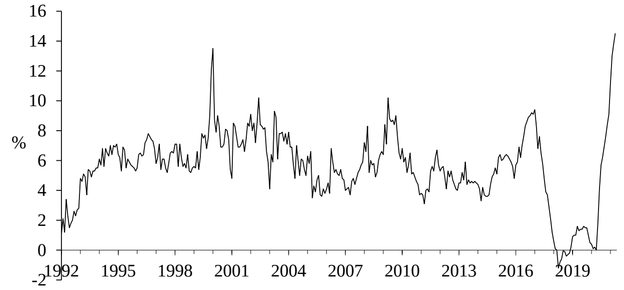


The classical model when simulated over past histories comfortably fits the data of actual history. This implies that the classical model is likely to be close to the true model; and a reliable guide to the policy effects of the government's programme of free trade deals around the world. According to this model the total gains from this programme in the long run — from fully eliminating the EU's protection of 20% on food and manufactures are around 9% of GDP, with consumer prices lowered by around 12%. The main effect on UK trade with the EU will be to lower the prices at which it happens by 20% on food and manufactured trade; the volumes of trade are not likely to change much, since there will continue to be no tariffs and each exporting side will meet required import standards.

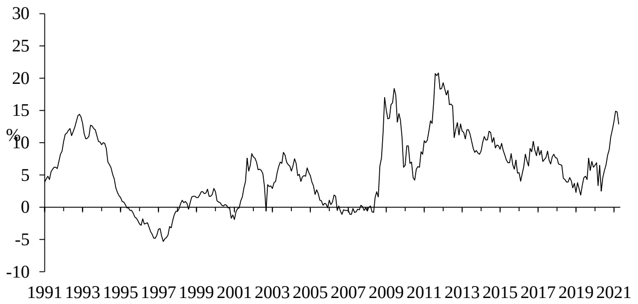
U.S.: Growth in M0 (Yr - on - Yr)



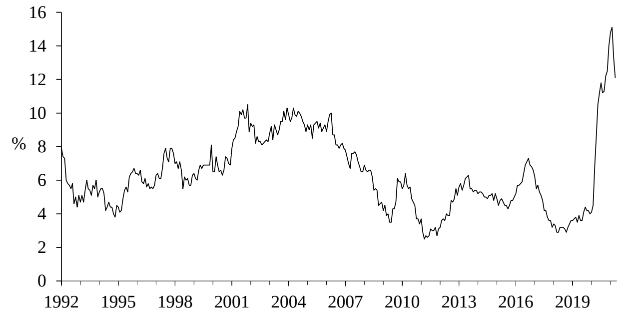
UK: Notes and Coins in Circulation Growth



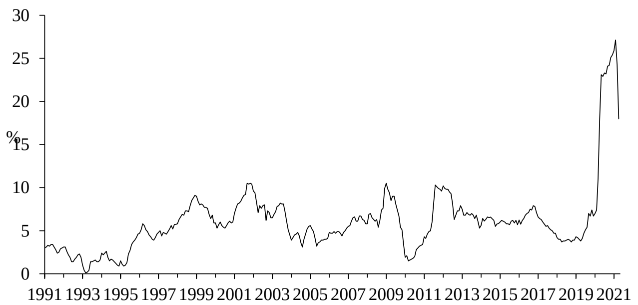
U.S.: Growth in M1 (Yr - on - Yr)



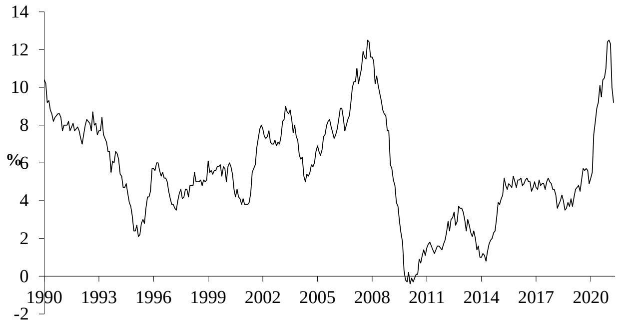
UK: M4 Growth



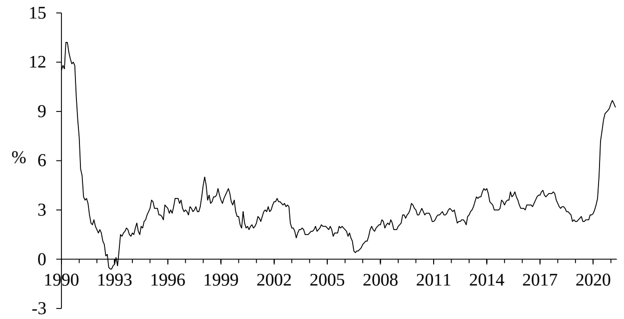
U.S.: Growth in M2 (Yr - on - Yr)



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japan's Economy Shrinks

Japan's economy shrank more than expected in the first quarter as a slow vaccine rollout and new COVID-19 infections hit spending on items such as dining out and clothes, raising concerns the country will lag others emerging from the pandemic. Official data released by the cabinet office showed that the economy contracted 1.3% q-o-q in the first quarter following a 2.8% jump in the previous quarter and 5.8% in the July-September quarter. The y-o-y the decline was 1.9% compared to 1.1% of the previous quarter.

Regarding demand components, private consumption fell 1.4% q-o-q, following two quarters of expansion, reflecting slower spending in the services sector. Capital investment also dropped 1.4%, though housing investment rose 1.1%. The drop in private consumption was not as bad as some had feared, noted Marcel Thieliant, senior Japan economist at Capital Economics. The two "big disappointments", he wrote in a note, came from drops in non-residential investment and public demand. And while exports were up 2.3%, imports rose by a larger 4.0%, "so net trade knocked 0.2%-points off GDP growth" he added. Takeshi Minami, chief economist at Norinchukin Research Institute echoed. "Domestic demand is weak shows the adverse effects from the coronavirus haven't been shaken off at all", he said.

Overall, Japan's economy registered its first annual contraction since 2009 last year, reeling from the effects of the pandemic despite experiencing a smaller outbreak than many countries. In the fiscal year that ended in March this means that the economy slumped a record 4.6% despite massive monetary and fiscal stimulus. "There will undoubtedly be fiscal money poured on this problem to soften the blow, though after so much already, it is difficult to see this having more than a fairly marginal effect", analysts at ING wrote in a research note, adding they expect the economy to shrink again in the current quarter. "And the Bank of Japan seems to be out of fresh policy stimulus ideas currently, so we don't anticipate anything new from them apart from extending existing measures".

Economists warn that the slowdown is likely to continue, with the government forced to impose a third state of emergency in several parts of the country — including economic engines Tokyo and Osaka — earlier last month. The emergency measures are tougher than in the past and have been extended until June 19 five weeks before the postponed Tokyo 2020 Olympics are due to start. "The GDP slump will continue in Q2 2021. The third state of emergency introduced in April calls for shorter working hours and longer leave periods than previous ones", wrote Naoya Oshikubo, senior economist at SuMi TRUST. Further complicating the growth picture is Japan's comparatively slow vaccine rollout. "With the medical situation still worsening and the vaccine rollout too slow, it will take until the end of the year for output to return to pre-virus levels", Thieliant said. Naohiko Baba, economist at Goldman Sachs, is more optimistic and sees a mild rebound in the next quarter before strengthening growth towards the end of the year. "We expect a turn to modest growth in 2021Q2, mainly on a rebound effect, but highlight the lack of visibility on trends moving forward with a state of emergency reimposed. We expect real GDP growth to peak in April-June in the US and in July-September in the euro area along with steady progress on vaccinations. However, with Japan's vaccine roll-out delayed significantly, we assume peak growth will be pushed back to October-December."

A more thorough vaccination effort is indeed the only realistic way economic activity can resume close to normal and growth can recover to pre-pandemic levels. This is even though Japan has so far registered only about 13,000 coronavirus deaths and has avoided the strict lockdowns seen in some places. Cases are surging especially in urban areas, such as Osaka and Tokyo, and hospital beds are running out in some spots. The public has grown increasingly opposed to holding the Tokyo Olympics, postponed from last year and set to begin in July, Japanese media surveys and an online protest petition show.

The worse-than-expected result leaves the economy in a vulnerable position this quarter, as Prime Minister Yoshihide Suga's administration struggles to find the right balance in a targeted approach to virus containment that attempts to limit damage to the economy and keep the staging of the Olympics on track. "Consumer spending is the biggest missing piece for the economy and it's hard to predict because it's very much dependent on the virus situation", said economist Yoshiki Shinke at Dai-Ichi Life Research Institute. Suga last month added three more prefectures to the latest emergency, putting about half of the economy under restrictions that are slightly tighter than the ones in winter, but still less draconian than Europe's lockdowns. The current order now encompasses 10 prefectures where restaurants, bars and other dining establishments have been asked to close by 8pm and stop serving alcohol completely. With the state of emergency active in 10 prefectures, pre-emergency measures in place in 8 and dining establishments asked to close early in 18 others — all until at least June 19 — restrictions of varying intensity are now in effect in more than three quarters of the country's 47 prefectures. If measures expire on June 20, the third emergency will have lasted longer than the country's first, which continued for 48 days from early April to late May last year.

With the general election having to be held by the autumn and with the economy shrinking, Suga needs to take extra action on the vaccination campaign if he wants to maintain his hopes of surviving as premier. The lengthy vaccine approval process and its slow roll-out have left the country well behind the US, the UK and other countries with more aggressive inoculation programmes. So far, only about 3% of Japan’s population has received even a single dose. So the best economic measure now is to accelerate vaccination. “While many other countries consider loosening restrictions, Japan isn’t there yet”, said Shinke.

MARKET DEVELOPMENTS

With the recovery looking so strong, equity prospects are good. Interest rates will need to rise to head off inflation; but solid firms with good profits will absorb these rises without damage.

Table 1: Market Developments

	Market Levels		Prediction for May/Jun 2022	
	May 4	Jun 1	Previous Letter	Current View
Share Indices				
UK (FT 100)	6923	7080	10821	11442
US (S&P 500)	4165	4202	5668	5824
Germany (DAX 30)	14856	15567	24379	25904
Japan (Tokyo New)	1898	1926	2225	2427
Bond Yields (government				
UK	0.82	0.82	0.50	0.50
US	1.60	1.61	1.30	3.00
Germany	–0.23	–0.19	–0.20	0.00
Japan	0.09	0.08	0.00	0.10
UK Index Linked	–2.14	–2.15	1.00	1.00
Exchange Rates				
UK ($ per £)	1.39	1.42	1.30	1.30
UK (trade weighted)	81.06	82.28	80.0	80.0
US (trade weighted)	100.15	99.05	102.5	102.5
Euro per $	0.83	0.82	0.88	0.88
Euro per £	1.15	1.16	1.14	1.14
Japan (Yen per $)	109.20	109.40	107.5	107.5
Short Term Interest Rates				
UK	0.83	0.63	0.30	0.30
US	0.21	0.18	1.00	1.00
Euro	–0.49	–0.49	–0.50	–0.50
Japan	–0.05	0.00	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	2.6	5.0	54.00		65.20
US	1.99	2.4	2.3	33.90	8.27	48.86
Germany	3.30	1.8	1.6	63.00	1.16	70.86
Japan	1.90	1.5	0.5	24.00	9.86	37.76
UK indexed[2]	–2.15		5.0	10.00		12.86
Hong Kong[3]	2.60	5.2	2.3	2.00	8.27	20.37
Malaysia	3.30	6.9	2.3	85.00	8.27	105.77
Singapore	3.50	5.0	2.3	54.00	8.27	73.07
India	1.40	5.5	2.3	19.00	8.27	36.47
Korea	1.10	2.2	2.3	–7.00	8.27	6.87
Indonesia	2.20	4.8	2.3	41.00	8.27	58.57
Taiwan	2.80	3.5	2.3	44.00	8.27	60.87
Thailand	3.20	4.1	2.3	51.00	8.27	68.87

Bonds: Contribution to £ yield of: –

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	0.82	–6.77		–5.95
US	1.61	–13.87	8.27	–3.99
Germany	–0.19	–1.85	1.16	–0.87
Japan	0.08	–0.21	9.86	9.73

Deposits: Contribution to £ yield of:

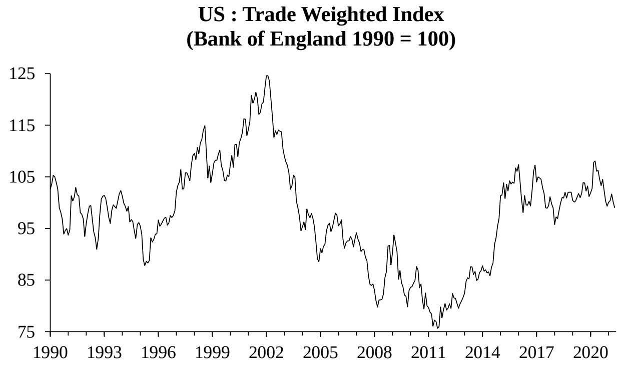
	Deposit Yield	Currency	Total
UK	0.63		0.63
US	0.18	8.27	8.45
Euro	–0.49	1.16	0.67
Japan	0.00	9.86	9.86

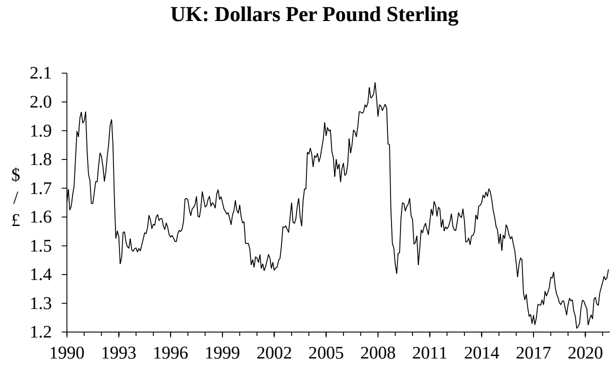
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

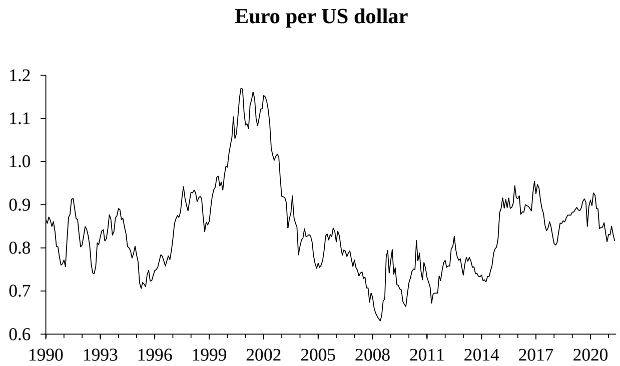
Table 3: Portfolio(%)

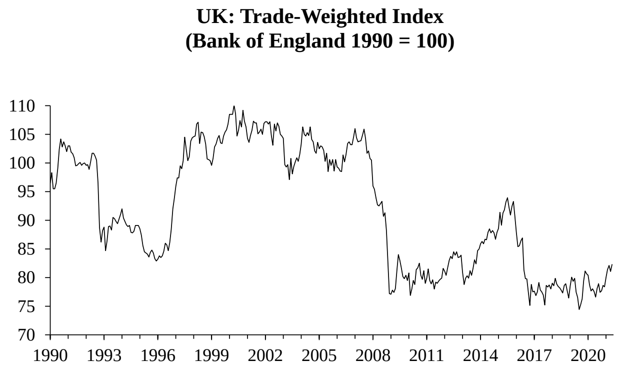
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	May Letter	Current View	May Letter	Current View	May Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
German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

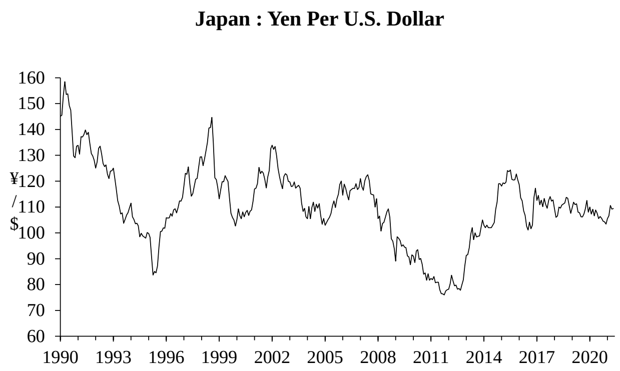
INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS







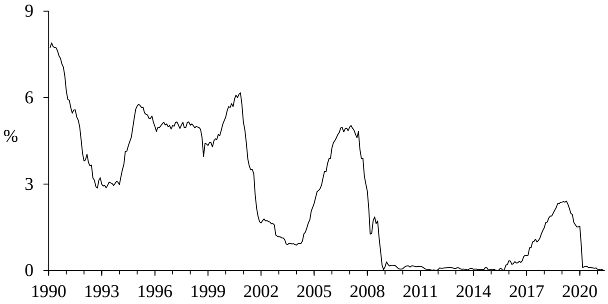




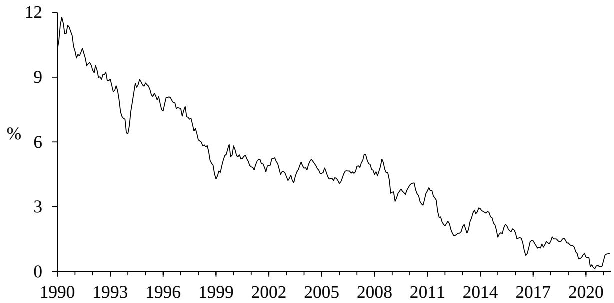
GOVERNMENT BOND MARKETS

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

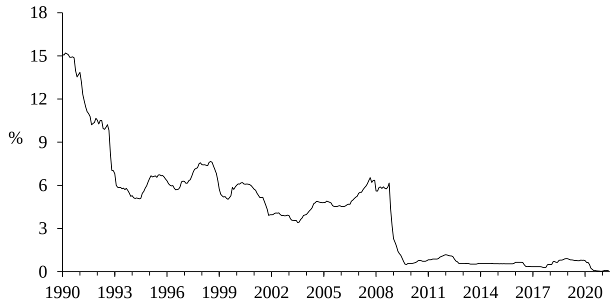
U.S. : 3-Month Treasury Bill



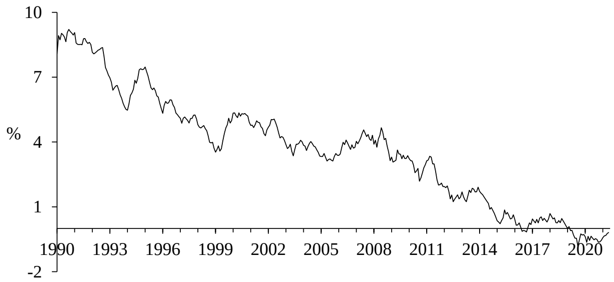
U.K.: Yield on Long-Term Government Bonds



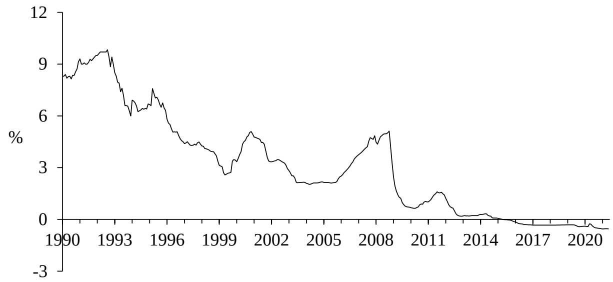
U.K. : 3-Month Certificate LIBOR Rate



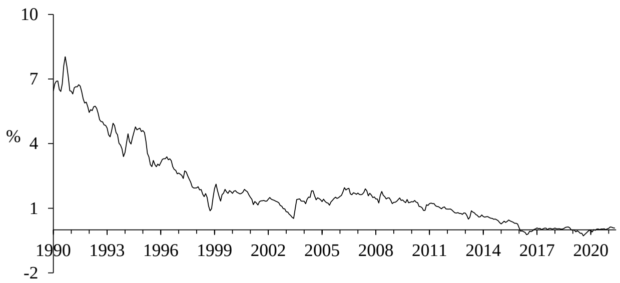
Germany: Yield on Public Authority Bonds



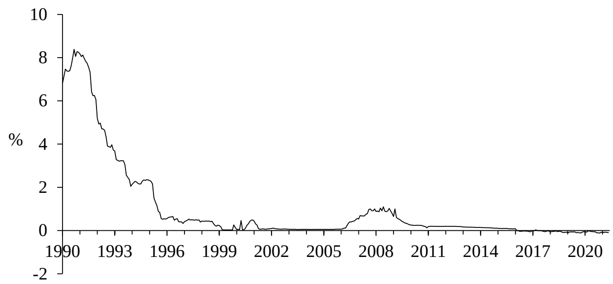
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

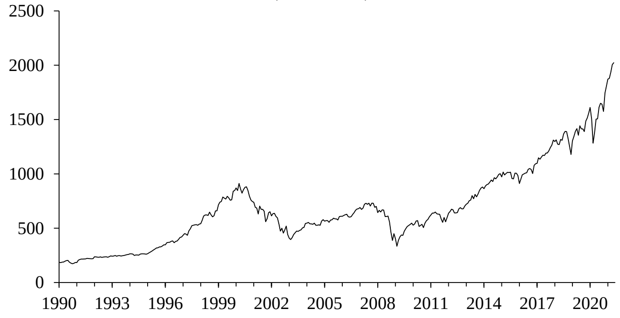


Japan : 3-Month Money Market Rate

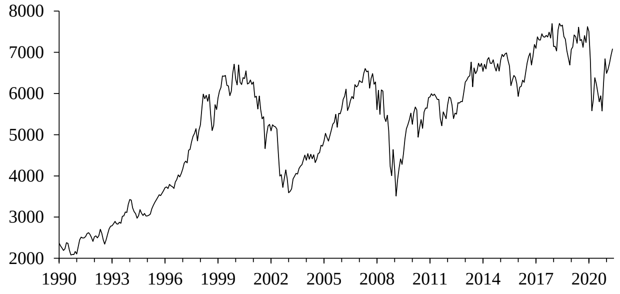


MAJOR EQUITY MARKETS

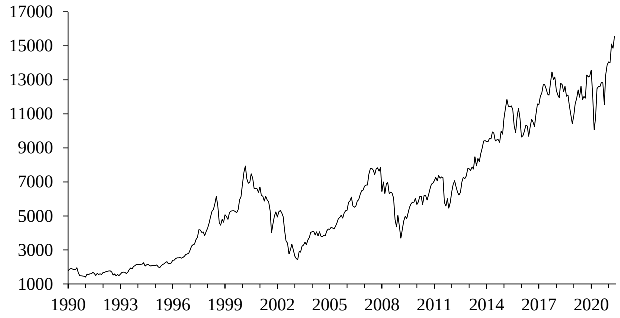
U.S. : S & P 400 Industrial
(1985=100)



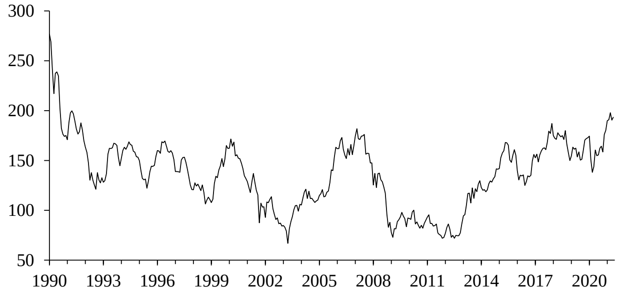
U.K. : FTSE-100 Index
(10 April 1962=100)



Germany : DAX 30



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



EMERGING MARKETS

Anupam Rastogi

India

India's second wave of coronavirus pandemic is receding now. The daily cases have fallen to below 130,000 per day after topping 400,000 per day in April, and some cities and regions of India are gradually lifting lockdown restrictions. A record-breaking boom in stock markets, growing foreign exchange reserves and pessimism related to consumer sentiments on the basis of 'headline grabbing' news items tell diagrammatically opposite stories.

Indians are living under a mild fear of a third wave of coronavirus to sweep in. It is widely believed that there has been a massive under reporting of coronavirus cases in April and May when the pandemic battered India. If that is true it implies that hundreds of millions of Indians have likely been infected already. This suggests that there are fewer people left for the virus to infect and from whom it can spread and mutate. At present the government strategy rests on three prongs: seroprevalence surveys to determine the population's true immunity, genome sequencing to detect mutant viruses quickly and an accelerated vaccination program to give the virus less room to mutate in a way that makes it vaccine-resistant.

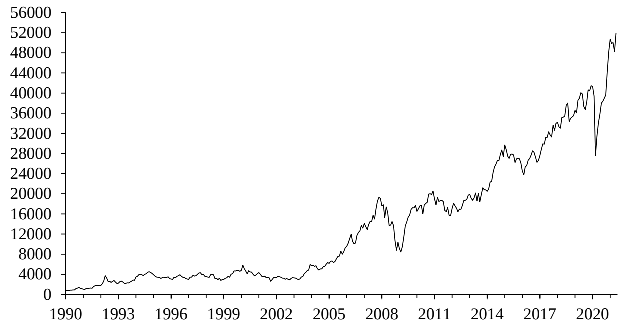
The federal government is unlikely to go for a countrywide lock down and it is pushing for localized lockdown. Many states will continue to have localized restrictions until the end of June. States are trying to maintain all of its Covid protocols to prevent a further deterioration until mass vaccination is achieved. According to the federal government plan, it will have roughly two billion vaccines by the end of December and will be able to vaccinate at least one billion people by mid-2022.

According to Devi Sridhar, chair of global public health at the University of Edinburgh, pandemic retreats gradually and until a significant population of the world gets vaccinated it will remain a headache. Free movement and gathering of people will remain restricted and constrained. This will impact the world economy and the Indian economy for the next few years.

The markets are optimistic about the economy's resilience while TV news channels are busy with their business and making handsome profits.

We maintain our forecast of GDP growth of 11% in the year that began April 1. The economy came out of technical recession in Q3 FY2021, and expanded by a revised 0.5% after reporting two consecutive quarters of de-growth in the last fiscal year. In the FY2021, GDP contracted by 7.3%. This is slightly better than the 8% dip the Central Statistics Office estimated in February. The Q4 GDP grew 1.6%

India: BSE Sensitive



which suggests that in the second half of FY2021, the economy shed pessimism faster than what was estimated that time. At 7.3%, India's FY2021 GDP contraction is the worst in the world.

India's Manufacturing PMI fell to a 10 month low in May. The manufacturing sector stood at 50.8 in May versus 55.5 in April. Overall, the manufacturing activity has remained above 50, which indicates expansion, since July 2020. It shows that the localised lockdowns have allowed industrial activity to continue at a healthy level. The Indian monsoon is expected to be 101% of normal. We can expect the agriculture sector to continue to play a supportive role in FY2022.

Rising inflation remains a cause of worry, with a silver lining that the pace has softened compared to April. As demand for goods and services pick up gradually, producers are passing on raw material cost increases to output prices, pushing core inflation higher. Inflationary pressures are hitting WPI inflation across all the key categories — food, fuel and core components.

We expect headline inflation at 6% in FY2022 and 5.5% in FY 2023. Headline CPI inflation declined to a three-month low of 4.3% in April from 5.5% in the previous month. This was primarily on the back of a favourable base (7.2% in April) even as inflation inched up on a sequential basis in a broad-based manner for the third month in a row, signalling a build-up of inflationary pressures.

The RBI's Monetary Policy Committee (MPC) unanimously decided to keep the policy rates unchanged (repo rate: 4%).

The six-member MPC retained its accommodative policy for as long as necessary to revive and sustain growth, indicating there's still room to cut rates further. "At this juncture, policy support from all sides is required to gain the momentum of growth," according to RBI Governor Shashikant Das.

India's exports touched $32 billion in May 2021 — over 67% higher than May last year and almost 8% more than the corresponding period in 2019 — led by a rise in the shipments of engineering goods, oil products and iron ore.

Although export growth in May 2021 was slower than April, the combined increase still adds up to over 12%, giving the government the confidence that it is on course to achieve strong recovery in this segment of the economy, once the impact of the lockdown across a large number of states wears off in the coming months. In the current fiscal year the current account will be in deficit as imports are growing faster than exports in terms of USD mainly due to higher crude oil prices.

The rupee has appreciated over 4.5% in the last 5 weeks benefiting from steady foreign inflow and risk appetite play. Rising inflation concerns and the Fed's ultra-accommodative monetary policy have kept the US dollar under pressure. In short, it is more about dollar weakening rather than rupee strengthening. India has accumulated forex reserves of more than $600 billion.

Indian markets have been resilient amid a devastating second wave of coronavirus — showing investors think India's long-term growth potential is intact despite the humanitarian crisis and that big companies will avoid severe financial damage. The domestic benchmark equity index touched a new all-time high on the last day of May.

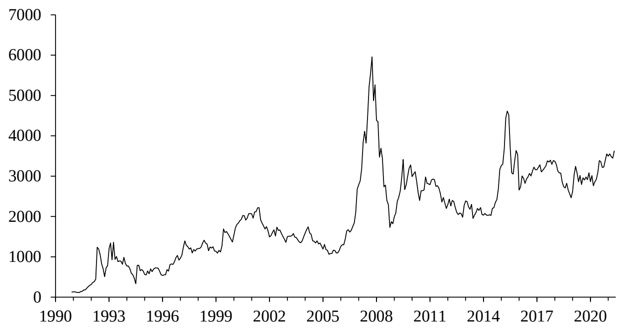
	19–20	**20–21**	**21–22**	**22–23**	**23-24**
GDP (%p.a.)	4.0	-7.3	11.0	5.5	6.0
WPI (%p.a.)	3.6	5.5	6.0	5.5	5.3
Current A/c(US$ bill.)	-20.0	35.0	-20.0	-10.0	-10.0
Rs./$(nom.)	73.0	75.0	74.0	76.0	78.0

China

China, expecting to be spared from the ravages of the pandemic, is coming round to the view that it cannot live in isolation. It is vaccinating its population at the breath-taking pace of 20 million per day after a slow start because of supply issues and some vaccine hesitancy. China is using its homegrown vaccine to inoculate its population. The Seychelles used a shot developed by China's Sinopharm to inoculate its population. The experience of Seychelles suggests what to expect in the months to come. The archipelago in the Indian Ocean reopened its borders earlier this year after vaccinating 64% of its population. The result was that infections increased substantially, but the number of hospitalizations was low. The vaccination has shown to be less effective at preventing infections, but it has high efficacy at preventing serious illness.

China's economy expanded by an impressive 18.3% in the first quarter of 2021 in spite of uncertainty over the growth of its private sector after the ugly faceoff between billionaire Jack Ma and the authorities. This has posed several challenges for the country. One of the biggest short-term challenges is employment generation, which in turn affects domestic consumption.

China: SSE Composite Index



China's PMI data for May showed the economic recovery is on track. The gauge for manufacturing came in at 51, slightly lower than expected. The non-manufacturing index was at 55.2, a modest increase in the services sector. Possible headwinds for factories include power shortages which have triggered rationing of electricity in Guangdong and surging commodity costs

The gap between China's PPI and CPI is at its highest since the early 1990s. China's factory-gate prices jumped 6.8% in April from a year earlier, the biggest gain in more than three years. Consumer prices rose 0.9%, a touch less than anticipated, but the largest increase since September. Beijing insists the impact of commodity prices on the domestic economy will be limited and that price growth remains manageable. Still, officials have pledged to strengthen controls on the raw-materials market to curb costs to companies. Firms aren't passing along the full impact of price increases and some profit margins are being squeezed. We expect CPI to be 1.8% for 2021 as a whole even though the government is trying to manage food costs. China's handling of surging input costs will have far-reaching implications for global growth and prices.

China's exports growth lost some momentum in April on moderating overseas demand and the fading base effect of the trade slump seen early last year, while higher commodity prices are expected to have kept a brisk pace of imports.

Exports are expected to have risen 24.1% in April from a year earlier compared to the 30.6% jump in March. Imports rose 42.5% in April, higher than the 38.1% gain in March. This led to a trade surplus of $29 billion in April, following a surplus of $14 billion in March.

The yuan is at a 3-year high. It has risen about 1.4% in the past four weeks and clocked its best monthly performance in May since last November. The People's Bank of China is not allowing a stronger yuan to counter inflation. The central bank fears that a stronger yuan may create asset bubbles. Any attempt to prevent it from rallying further would provide a clash between Beijing and Washington over currency manipulation. A stronger yuan would lead China to export inflation to the rest of the world, just as it arguably exported deflation in the 1990s and 2000s when the entry of the nation's workforce to the world market at an artificially cheap exchange rate helped keep a check on prices in the rest of the world.

The problem with a stronger currency would be competitiveness. China's announcement that banks must increase the amount of foreign currency they hold in reserve has signalled that the authorities would like the appreciation to stop.

We expect the Chinese yuan to remain well-supported because of strong export performance, sizable trade surplus and ongoing capital inflow into Chinese capital markets for both tactical and structural factors. The PBOC may opt to curb appreciation momentum from time to time, but a stronger Chinese yuan has its benefits in keeping imported prices low and encouraging international capital into the Chinese markets. China's CSI 300 index, a gauge of the biggest shares listed in either Shanghai or Shenzhen, gained roughly 5% in May.

China's population policy remains a big headache for the policy makers. As in the cities, the impact of the new policy is likely to be limited in the countryside. Many families already have two or more children because of China's less restrictive birth policy in rural areas. In conjunction with its lifting of birth restrictions, China is considering a gradual raise in the national retirement age for men and women. China now has one of the world's lowest retirement ages, 60 for most men and 50 for women.

President Xi made an open request to the Politburo to create a "trustworthy, lovable and respectable" image for the country. It is an admission that aggressive defence of the country's policies by Beijing's diplomats — often referred as "Wolf Warrior" diplomacy — hasn't helped. President Xi called on officials to have "a grip on tone" in its communications with the world, he added, and should be "open and confident, but also modest and humble."

The world has moved quite far now and view China with a tinted glass. The Biden administration is banning Americans from investing in dozens of Chinese defence and surveillance technology companies in an effort to stop US capital from being used by China to undermine national security. The ban includes marquee Chinese groups such as Huawei, the telecoms equipment manufacturer, and Semiconductor Manufacturing International Corporation, China's largest chipmaker, which according to the US intelligence is critical to the Chinese military. The ban would take effect on August 2.

The impact of the news that Covid 19 virus was deliberately leaked by China is going to have far reaching consequences and its impact is not yet baked in prices yet.

Korea: Composite Index

	19	20	21	22	23
GDP (%p.a.)	6.1	2.0	7.5	5.2	5.0
Inflation (%p.a.)	2.9	2.5	1.8	2.0	2.0
Trade Balance(US$ bill.)	40.0	60.0	50.0	40.0	42.0
Rmb/$(nom.)	7.1	6.7	6.3	6.2	6.0

South Korea

South Korea, using social distancing and other measures, seems to have contained the spread of the pandemic but the service sector is still languishing. The government has banned gatherings of five or more people across the country under Level 2 social distancing. The measure, the third highest in a five-tier system, is in place until June 13 in the capital Seoul and its surrounding areas, with Level 1.5 in force in the rest of the country. Roughly 10.5% of the total population have received their first shots of the vaccine by now.

South Korea reported better-than-expected economic growth. IHS Markit showed the country's manufacturing sector expanded at a slower pace, with the purchasing managers' index for May at 53.7, down slightly from the previous month. The economy is forecast to grow 4% this year on the back of strong export growth and expansionary macroeconomic policy. This would mark the country's fastest economic growth since 2010 when it clocked 6.8% after recovering from the 2008–2009 global financial crisis. South Korea injected nearly 15 trillion won ($13.53 billion) of fiscal stimulus since March 2021 to fight the pandemic led slowdown.

South Korea's consumer prices grew at the sharpest pace in nearly a decade in May. The consumer price index gained 2.6% on-year in May, marking the fastest pace of growth since April 2012. The corresponding figure for April 2012 also stood at 2.6%. Prices of agricultural, livestock and fisheries extended their gains due to a tight supply and the impact of bird flu. Prices of petroleum goods also jumped (as oil prices rose) due to last year's low base.

We expect inflation to peak at 2% for 2021 — the annual target for inflation. The Bank of Korea (BOK) revised up its 2021 inflation outlook to 1.8% from its earlier estimate of 1.3%. The BOK is expected to stand pat throughout the year before starting to withdraw its economic support next year.

We expect an increase in policy rate in January 2022. According to the BOK Governor Lee the central bank is now tasked with “neither rushing nor delaying” its exit from the current super easy-money policy.

Exports of goods were 4.4% higher in the first quarter compared with the final quarter of 2019, before the pandemic hit. South Korea’s exports surged the most since 1988 in May as a reopening of overseas economies boosted demand for products manufactured by the Asian nation. While export growth was in part inflated by last year’s 24% drop, the huge gains reinforce the view that global commerce is recovering from the pandemic and fuelling Korea’s economic expansion. Exports are the key to achieving GDP growth of 4% this year as they help fuel investment and buoy confidence. South Korea posted a trade surplus for 12 straight months as exports grew faster than imports.

South Korea’s won gained further ground on a broadly weaker US dollar.

	19	**20**	**21**	**22**	**23**
GDP (%p.a.)	1.8	-1.0	4.0	2.2	2.5
Inflation (%p.a.)	0.4	0.5	2.0	1.2	1.0
Current A/c(US$ bill.)	60.0	70.0	60.0	40.0	40.0
Won/$(nom.)	1200	1070	1100	1100	950

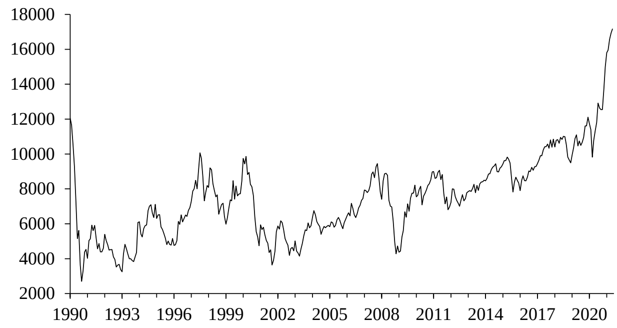
Taiwan

Taiwan is paying for its complacency related to the pandemic. It is grappling with an outbreak of Covid-19 that has forced restrictions across the island. Taiwan barred foreigners from May 19, 2021 to June 18, 2021 and closed schools for two weeks in mid-May. Taipei imposed restrictions in mid-May and shut many venues and limited gatherings after a rise in community transmissions. Its parliament approved an extra $15.20 billion in stimulus spending to help the economy deal with the pandemic.

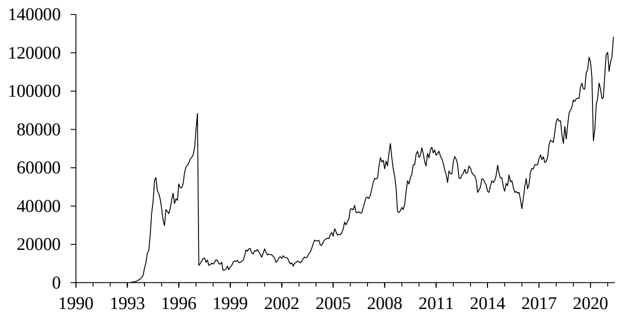
Taiwan’s GDP has been growing at a steady pace and would be affected only if the pandemic is not brought under control in the current quarter itself. Confirmed cases have jumped many folds in the last week of May from 20 a day to more than 100 a day. Its continuation in the third quarter of 2021 would shave off approximately one half a percent of GDP which is being compensated by higher government spending. The government has signalled that individuals from sectors affected by closures can apply for financial support, while companies can seek wage subsidies. Moreover, authorities are trying to vaccinate its people. Only 1% of the island’s population has been immunized. The US is donating more vaccines to Taiwan. Due to the pandemic, local lockdown will happen, on and off, leading to supply constraints in 2021 and spilling over to first half of 2022.

Exports are likely to rise between 25% and 31% in May and textile exports were boosted by strong demand in April. But, ongoing water shortage remains a concern for chip production.

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



The outbreak of the pandemic impacted the stock market severely. A collapse in investor confidence, fears about a coronavirus resurgence and concern over the outlook for technology shares helped trigger a wave of panic selling in Taiwanese stocks. The Taiex fell as much as 8.6% in mid-May, the most since 1969, amid a rush of activity in the options market. The risk of sentiments of investors impacted leveraged investors to exit the market. Increased margin calls led them to sell more stocks to raise the cash in response. By the end of May it recovered almost all its losses. The market has appreciated more than 15% year to date and more than 20% in the last six months.

	19	**20**	**21**	**22**	**23**
GDP (%p.a.)	2.0	3.1	4.6	3.5	3.0
Inflation (%p.a.)	1.0	-1.0	1.0	1.0	1.0
Current A/c(US$ bill.)	70.0	71.0	90.0	100.0	65.0
NT$/$(nom.)	31.0	29.0	28.5	27.5	27.0

Brazil

Thanks to the rise in commodity prices, further progress on the Covid vaccination front and renewed fiscal stimulus the economic turnaround of Brazil surprised many. The gradual reopening of the economy has built consumer and business confidence gradually. However, the government struggles to source Covid vaccinations. A vaccination experiment, carried out by the Butantan Institute, the São Paulo-based public-research center, had vaccinated all adults of Serrana. This reduced Covid-19 deaths by 95%. The success of the experiment proved that vaccination is the only weapon to fight the coronavirus.

Our forecast for the GDP growth is 4.5% and 2.5% in 2021 and 2022 respectively as part of the fiscal and monetary stimulus are removed in the coming quarters. Brazil's government spent approximately 8.3% of its annual economic output last year on stimulus. It gave cash handouts to residents of up to $233 a month. The country's farmers grew a record crop of soybeans in the first quarter, and good commodities prices on global markets boosted incomes. High prices on world markets for iron ore delivered another boost for Brazil, the world's second-largest producer of iron ore after Australia.

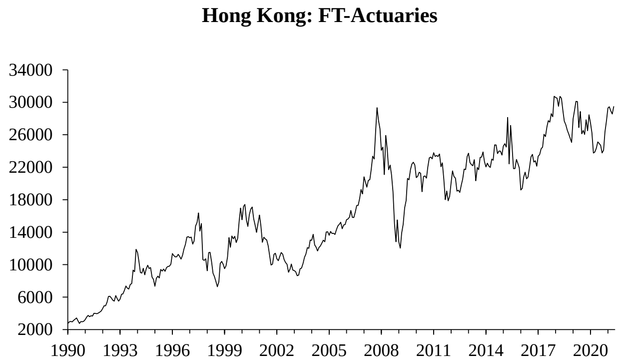
Inflation is expected to hit 5.3%, well above the central bank's year-end goal of 3.75% and breaching the upper limit of its wider target range at 5.25%. The central bank raised its benchmark lending rate for a second time to 3.5% and pledged another 75-basis point hike in June. The central bank is optimistic with the economy's reaction and vigilant with inflation. The bank expects that price pressures are temporary and expects inflation to fall below the 2022 target if the key rate is raised to the neutral level in the current cycle. The bank signalled its plan to pause the tightening later this year.

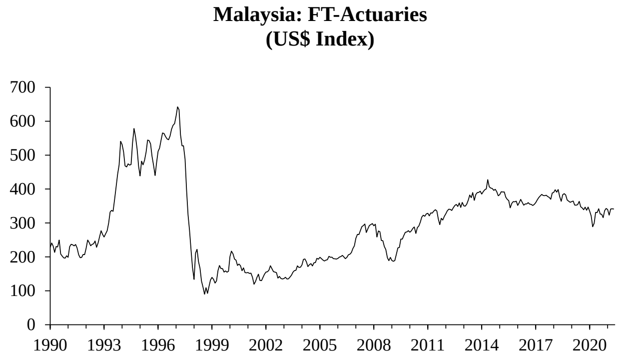
Brazil posted a trade surplus of $9.3 billion in May as record exports for that month helped fuel the second largest overall surplus ever. Brazil's trade surplus in the first five months of the year totalled $27.5 billion, sharply up from the $15.8 billion surplus a year ago. The central bank is forecasting a $70 billion surplus this year, compared to last year's surplus of $53 billion. Exports in the January-May period totalled $109.1 billion, up 31% on the year, while imports of $81.5 billion were 21% higher than a year ago.

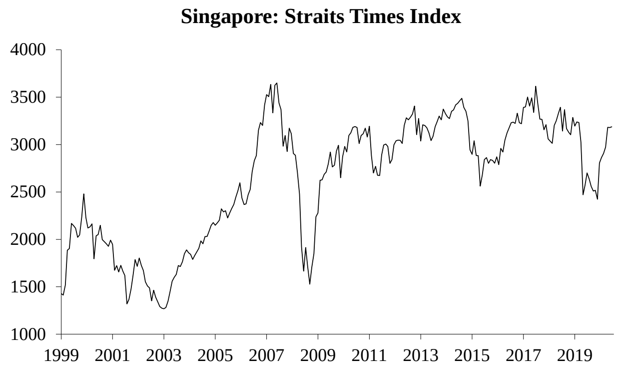
The Brazilian real appreciated after the central bank lifted its benchmark rate by 75 basis points and promised another hike of the same size next month in a renewed push to bring inflation back to target. The real is trading nearly 5.3 per dollar. In response to rising interest rates, it appreciated roughly 6% amid rising commodity prices, and the central bank's forward guidance on interest rates opens room for more gains.

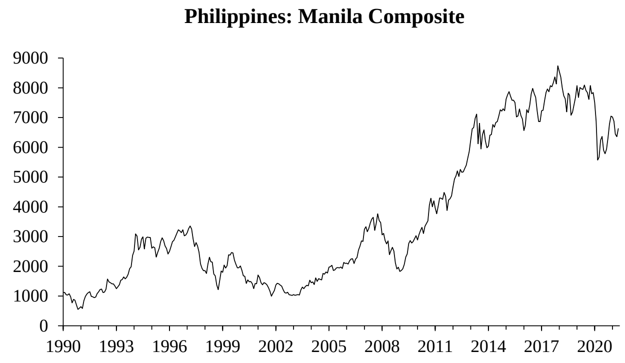
	19	**20**	**21**	**22**	**23**
GDP (%p.a.)	0.8	-4.5	4.5	2.5	3.0
Inflation (%p.a.)	4.3	4.5	5.3	4.0	4.0
Current A/c(US$ bill.)	-36.0	-7.6	-20.0	-26.0	-22.0
Real/$(nom.)	4.2	5.5	5.8	5.5	5.3

Other Emerging Markets



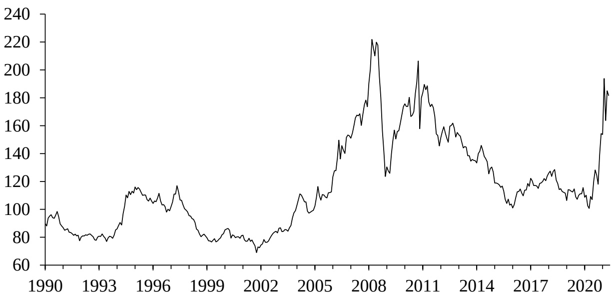




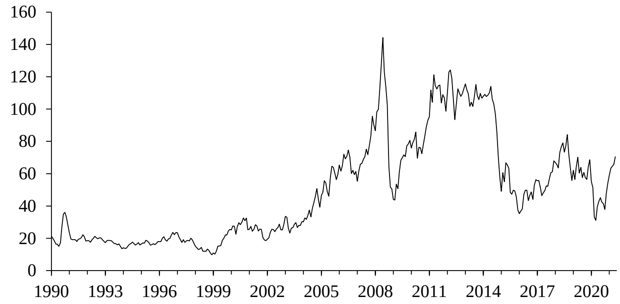


COMMODITY MARKETS

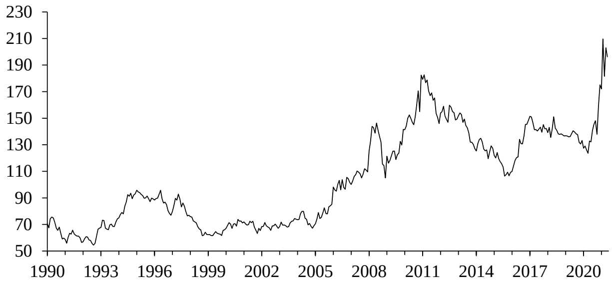
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



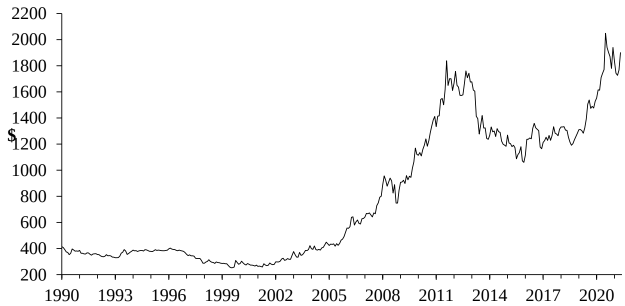
Oil Price: North Sea Brent (in Dollars)



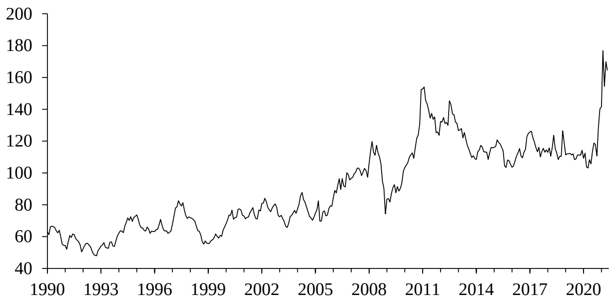
Commodity Price Index (Sterling)
(Economist, 2015 = 100)



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	0.3	0.2	78.0	72.8	-1.0	1.6	-0.9
2021	1.6	0.5	0.2	80.4	76.1	-3.6	2.3	-3.3
2022	5.0	1.5	1.5	78.8	77.6	-2.8	6.1	-2.9
2023	4.0	4.7	4.5	78.0	78.9	1.1	5.5	1.4
2024	3.0	5.0	5.0	77.8	80.0	2.6	4.6	2.6
2020:1	1.7	0.4	0.6	79.5	74.9	-0.2	2.7	-0.4
2020:2	0.8	0.0	0.1	77.6	71.9	-0.9	1.3	-1.0
2020:3	0.8	0.4	0.1	77.3	72.2	-1.2	1.1	-0.9
2020:4	0.8	0.4	0.1	77.6	72.3	-1.5	1.1	-1.2
2021:1	0.9	0.5	0.5	80.2	75.8	-2.1	1.1	-2.1
2021:2	1.6	0.5	0.1	80.6	75.9	-3.3	3.0	-2.9
2021:3	1.8	0.6	0.1	79.9	75.9	-4.1	2.5	-3.6
2021:4	2.0	0.6	0.2	80.8	77.0	-4.8	2.6	-4.4
2022:1	4.9	1.0	1.0	78.8	77.3	-3.8	5.4	-3.8
2022:2	5.0	1.5	1.5	79.0	77.3	-3.0	6.5	-3.0
2022:3	5.0	1.6	1.7	78.4	77.3	-2.6	6.3	-2.7
2022:4	5.1	2.0	2.0	79.2	78.4	-2.0	6.3	-2.0

1 Consumer's Expenditure Deflator
2 Sterling Effective Exchange Rate Bank of England
3 Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate
4 Treasury Bill Rate less one year forecast of inflation
5 Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100)[1]	Wage Growth[2]	Unemployment (New Basis) Percent[3]	Millions	Real Wage Rate[4] (1990=100)
2019	275.7	3.5	3.8	1.0	148.8
2020	279.5	1.6	4.5	1.3	149.8
2021	290.0	3.8	6.1	1.9	153.1
2022	307.5	6.0	5.2	1.6	154.7
2023	323.8	5.3	3.6	1.0	156.7
2024	337.5	4.2	2.8	0.7	158.5
2020:1	279.7	2.7	4.0	1.1	150.0
2020:2	270.1	-0.5	4.1	1.2	145.9
2020:3	279.6	0.5	4.8	1.4	149.4
2020:4	288.6	3.8	5.2	1.5	154.1
2021:1	292.6	4.6	5.3	1.6	155.5
2021:2	280.2	3.7	6.1	1.9	149.0
2021:3	288.6	3.2	6.9	2.2	151.4
2021:4	298.6	3.5	6.3	2.0	156.3
2022:1	309.5	5.7	5.8	1.8	156.9
2022:2	297.4	6.2	5.2	1.6	150.7
2022:3	306.1	6.1	5.0	1.5	153.0
2022:4	317.0	6.2	4.7	1.4	158.1

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	151.3	724355.9	419988.4	261719.7	199161.5	-33375.3	123138.4
2021	162.2	776817.5	440070.8	287688.0	211550.0	-29532.9	132958.4
2022	175.5	840426.3	466407.5	313298.4	224220.2	-23605.6	139894.2
2023	179.9	861371.5	480436.0	311846.7	230959.3	-18606.2	143264.3
2024	183.6	879481.0	494662.6	308857.5	237826.1	-15888.6	145976.6
2019/18	1.4		0.3	3.1	3.0		-0.1
2020/19	-9.9		-11.7	-15.0	-4.8		3.9
2021/20	7.9		5.7	12.6	6.6		8.0
2022/21	8.2		6.0	8.6	6.0		5.2
2023/22	2.6		3.0	-0.3	3.0		2.4
2024/23	1.8		3.0	-2.0	3.0		1.9
2020:1	163.4	195632.5	118032.8	72147.1	51656.8	-11632.2	34572.0
2020:2	132.0	158002.4	91565.8	47009.3	43743.5	429.6	24745.8
2020:3	153.9	184260.6	99906.5	74429.8	50861.9	-9722.9	31214.7
2020:4	155.7	186460.4	110483.3	68133.6	52899.3	-12449.8	32606.0
2021:1	154.3	184789.4	105316.5	73605.8	51097.1	-12799.0	32431.0
2021:2	158.1	189305.3	107090.8	65942.4	51381.6	-3100.0	32009.5
2021:3	165.4	197989.7	108892.7	76843.9	52892.3	-6663.8	33975.4
2021:4	171.0	204733.1	118770.8	71295.9	56179.0	-6970.0	34542.6
2022:1	173.0	207097.2	111593.0	87052.7	54146.4	-11003.1	34691.8
2022:2	175.1	209586.4	113522.4	79269.9	54465.4	-2829.7	34841.6
2022:3	176.4	211185.9	115432.9	80068.8	56071.4	-5098.5	35288.7
2022:4	177.5	212556.7	125859.2	66907.0	59537.0	-4674.4	35072.1

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	16.2	1990.9	313.4	-58.4
2021	6.1	2288.1	138.4	-49.4
2022	2.3	2545.4	57.9	-36.4
2023	1.6	2703.1	42.4	-24.6
2024	0.8	2842.0	23.7	-17.4
2020:1	-0.9	542.0	-5.0	-18.7
2020:2	27.3	431.7	118.0	-11.9
2020:3	14.4	508.7	73.5	-15.5
2020:4	13.7	510.9	70.2	-12.3
2021:1	10.2	496.0	50.6	-21.8
2021:2	8.6	513.6	43.9	-19.5
2021:3	6.6	544.1	36.1	-9.1
2021:4	5.7	568.5	32.6	-0.8
2022:1	4.7	590.7	27.8	-17.9
2022:2	4.7	595.7	28.3	-19.7
2022:3	4.3	607.4	26.0	-5.8
2022:4	3.0	616.5	18.5	4.5

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2017	2018	2019	2020	2021	2022
U.S.A.	2.3	3.0	2.2	–3.5	5.7	4.0
U.K.	1.8	1.3	1.4	–9.9	7.9	8.2
Japan	2.2	0.3	0.7	–5.3	2.7	2.3
Germany	2.6	1.3	0.6	–5.4	3.5	3.8
France	2.4	1.8	1.5	–9.3	5.5	3.7
Italy	1.7	0.9	0.3	–9.0	4.1	4.0

Growth Of Consumer Prices

	2017	2018	2019	2020	2021	2022
U.S.A.	2.1	2.4	1.8	1.2	2.4	5.0
U.K.	2.6	2.4	1.8	1.0	1.6	5.0
Japan	0.5	1.0	0.5	0.0	0.0	0.5
Germany	1.5	1.8	1.4	0.5	2.0	1.6
France	1.0	1.8	1.1	0.5	1.0	1.1
Italy	1.2	1.2	0.6	0.0	0.8	0.9

Real Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	–1.0	0.6	–0.5	–1.6	–1.0	0.0
U.K.	–2.0	–1.1	–0.2	–1.4	–4.8	–2.5
Japan	–0.9	–0.4	0.1	0.0	–0.4	–0.5
Germany	–2.1	–1.7	–0.9	–1.9	–2.2	–1.9
France	–2.1	–1.4	–0.9	–1.2	–2.0	–1.7
Italy	–1.5	–0.9	–0.2	–0.8	–1.5	–1.4

Nominal Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	1.4	2.4	1.5	0.4	1.0	2.0
U.K.	0.4	0.7	0.8	0.2	0.2	1.5
Japan	0.1	0.1	0.1	0.0	0.1	0.1
Germany	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1
France	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1
Italy	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1

Real Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	0.4	0.9	0.1	0.3	0.8	1.0
U.K.	–1.2	–0.7	–2.3	–2.8	–2.7	–1.1
Japan	–0.6	–0.6	–0.6	–0.5	–0.6	–0.7
Germany	–1.2	–1.4	–1.9	–2.3	–2.2	–2.0
France	–0.6	–0.7	–1.4	–1.9	–1.7	–1.6
Italy	0.9	1.8	0.2	–0.6	–0.5	–0.3

Nominal Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	2.4	2.9	2.1	2.3	2.8	3.0
U.K.	0.6	1.0	0.6	0.3	0.5	1.5
Japan	0.1	0.0	0.0	0.1	0.1	0.1
Germany	0.4	0.2	–0.2	–0.5	–0.3	0.0
France	0.8	0.7	0.1	–0.3	0.0	0.2
Italy	1.9	2.8	1.4	0.7	0.9	1.2

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

	2017	2018	2019	2020	2021	2022
U.S.A.	94.5	93.5	96.3	96.2	95.5	94.9
U.K.	75.5	76.9	73.8	72.8	76.1	77.6
Japan	58.3	57.8	56.3	54.2	51.4	48.0
Germany	94.3	96.5	95.6	94.1	92.2	90.0
France	95.3	97.4	96.3	94.5	92.1	89.4
Italy	101.2	102.8	104.5	105.2	103.8	101.7

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

Nominal Exchange Rate
(Number of Units of Local Currency To $1)

	2017	2018	2019	2020	2021	2022
U.S.A.[1]	101.68	10.96	104.31	106.43	101.34	100.53
U.K.	1.29	1.34	1.28	1.28	1.36	1.38
Japan	112.14	110.43	109.03	106.79	104.70	103.90
Eurozone	0.89	0.85	0.89	0.88	0.83	0.82

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

* Forecasts based on the Liverpool World Model