# LIVERPOOL INVESTMENT LETTER

**September 2021**

Cardiff University
Prifysgol Caerdydd
Cardiff Business School
Ysgol Busnes Caerdydd

**Julian Hodge Institute of Applied Macroeconomics**

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

## LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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

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

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# LIVERPOOL INVESTMENT LETTER

## September 2021

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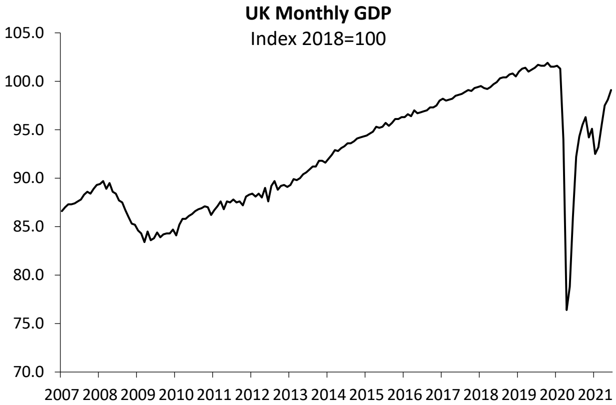
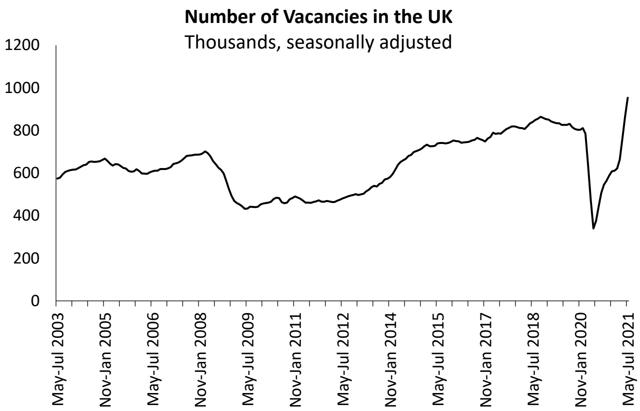
# THE LATEST STATE OF THE ECONOMY AND LABOUR MARKET

The latest monthly figures for GDP and employment show that by June GDP was just 2.2% below its pre-pandemic level. This is continuing along the track of our previous forecast.




Source: Office for National Statistics — GDP monthly estimate

In the labour market vacancies are up strongly and shortages are appearing:



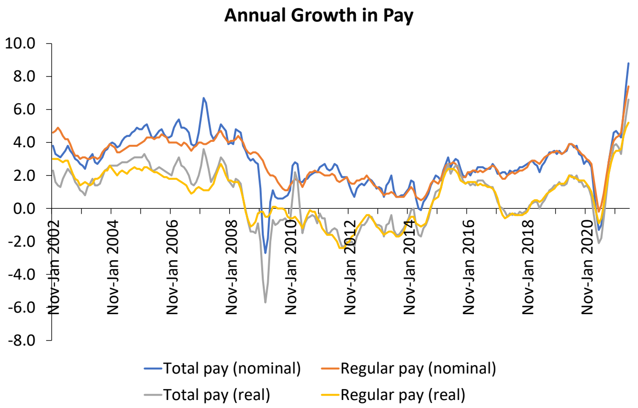

Source: Office for National Statistics — Vacancy Survey

Hence weekly earnings are up around 8% on a year ago. The ONS suggests that if you allow for composition effects (i.e. that the share of lower-paid workers has fallen) and base effects (i.e. that a year ago pay was depressed by Covid), then this falls to between 3.5% and 4.9%.

**Table 1: Summary of Forecast**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|
| GDP Growth[1] | 1.3 | 1.4 | -9.9 | 8.1 | 8.2 | 2.4 | 2.1 |
| Inflation CPI | 2.4 | 1.8 | 1.0 | 1.8 | 5.0 | 4.0 | 3.0 |
| Wage Growth | 3.0 | 3.5 | 1.6 | 5.6 | 4.5 | 4.3 | 4.2 |
| Survey Unemployment | 4.1 | 3.8 | 4.5 | 4.9 | 5.0 | 3.6 | 2.8 |
| Exchange Rate[2] | 78.6 | 78.3 | 78.2 | 81.3 | 78.7 | 77.8 | 77.5 |
| 3 Month Interest Rate | 0.4 | 0.8 | 0.2 | 0.1 | 1.5 | 4.5 | 5.0 |
| 5 Year Interest Rate | 1.0 | 0.6 | 0.1 | 0.4 | 1.5 | 4.7 | 5.0 |
| Current Balance (£bn) | -82.9 | -89.1 | -58.2 | -48.4 | -36.0 | -24.3 | -17.0 |
| PSBR (£bn) | 39.3 | 49.1 | 311.2 | 135.2 | 57.0 | 41.5 | 22.7 |

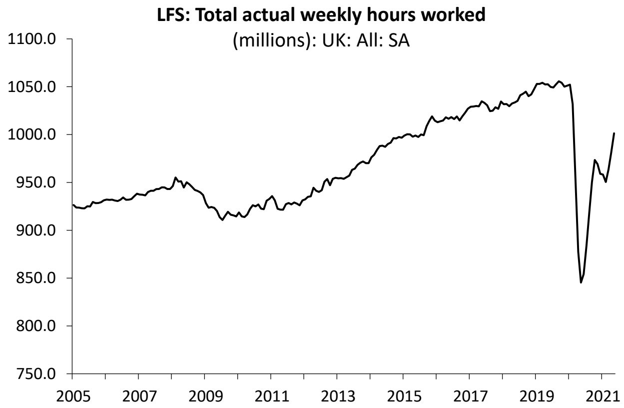
[1]Expenditure estimate at factor cost
[2]Sterling effective exchange rate, Bank of England Index (2005 = 100)




Source: Office for National Statistics — Monthly Wages and Salaries Survey

The picture is one of an economy returning rapidly to normal, with employment up sharply. Furthermore, productivity is growing, as firms respond to labour shortages by making better use of available workers. Total weekly hours are 4.8% below the pre-pandemic level, whereas GDP is 2.2% below, implying a rise in productivity per hour of 2.6% compared with pre-pandemic.

According to HM Treasury about 1.1 million workers are still on furlough. This is down from a peak of 9 million in May 2020 at the height of the pandemic. With the labour market now tight, vacancies exceed the number on furlough, and wages are rising rapidly. We should see those on furlough be quickly absorbed back into employment. Many of them may well move to new jobs where shortages are greatest.




Source: Office for National Statistics — Labour Force Survey

A final question concerns the regional pattern of the labour market overall recovery.

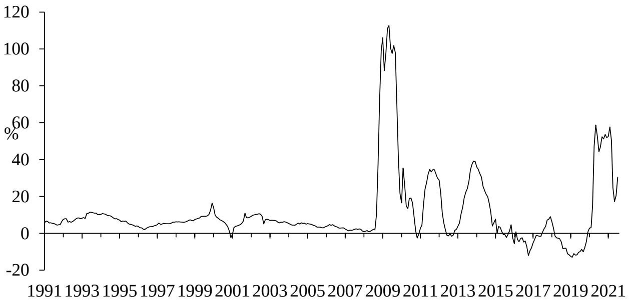
**Table 2: Summary of latest headline estimates and annual changes, for regions of the UK, seasonally adjusted, April to June 2021**

| | Employment rate[1] (%) aged 16 to 64 years | Change on January to March 2021 | Unemployment rate[2] (%) aged 16 years and over | Change on January to March 2021 | Inactivity rate[3] (%) aged 16 to 64 years | Change on January to March 2021 |
|---|---|---|---|---|---|---|
| UK | 75.1 | 0.3 | 4.7 | -0.2 | 21.1 | -0.2 |
| Great Britain | 75.2 | 0.3 | 4.7 | -0.2 | 21.0 | -0.2 |
| England | 75.3 | 0.4 | 4.8 | -0.2 | 20.8 | -0.2 |
| North East | 71.6 | -0.4 | 5.8 | 0.0 | 24.1 | 0.7 |
| North West | 73.2 | 0.6 | 4.7 | -0.3 | 23.1 | -0.4 |
| Yorkshire and The Humber | 72.9 | 0.5 | 5.0 | 0.0 | 23.2 | -0.6 |
| East Midlands | 75.3 | 0.5 | 4.3 | -0.8 | 21.2 | 0.2 |
| West Midlands | 74.5 | 1.6 | 5.0 | -1.1 | 21.4 | -0.9 |
| East | 78.1 | 0.4 | 3.9 | 0.0 | 18.7 | -0.4 |
| London | 74.7 | 0.2 | 6.4 | -0.5 | 20.2 | 0.3 |
| South East | 77.9 | -0.3 | 4.4 | 0.9 | 18.4 | -0.5 |
| South West | 77.0 | 0.3 | 3.6 | -0.2 | 20.0 | -0.1 |
| Wales | 74.2 | 0.3 | 4.1 | -0.4 | 22.5 | 0.0 |
| Scotland | 74.2 | -0.1 | 4.3 | -0.1 | 22.4 | 0.2 |
| Northern Ireland | 71.1 | 0.9 | 3.8 | 0.4 | 25.9 | -1.3 |

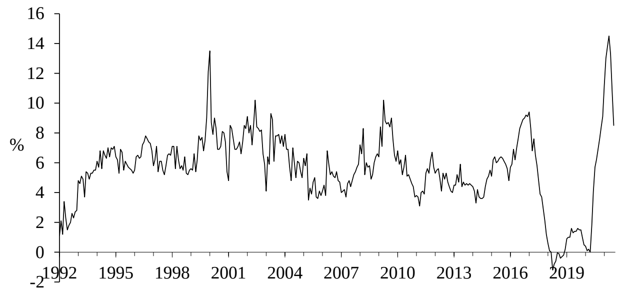
Source: Office for National Statistics — Labour Force Survey

What we see in the latest regional table from the ONS, is that compared to the beginning of 2020-pre-pandemic London and the South have been the worst affected regions, with their employment rates falling by 0.8–1.2%; while the best affected regions have been the West Midlands, where the employment rate rose by 0.5%, and East England, where it rose 0.8%. We see here the effects of the predominance in the South of the service economy, while manufacturing dominates the West Midlands and R&D activity the East. The regional winners and losers have changed since Covid.

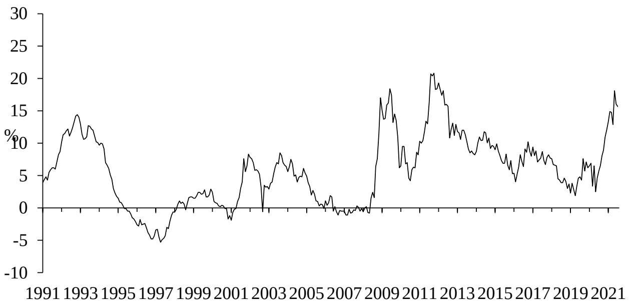
**U.S.: Growth in M0 (Yr - on - Yr)**



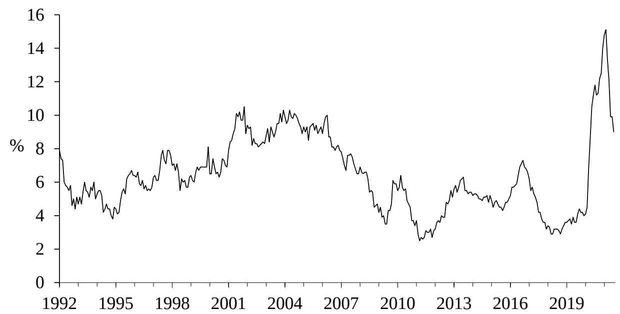

**UK: Notes and Coins in Circulation Growth**



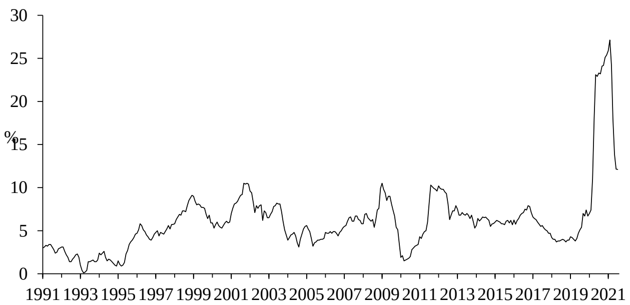

**U.S.: Growth in M1 (Yr - on - Yr)**



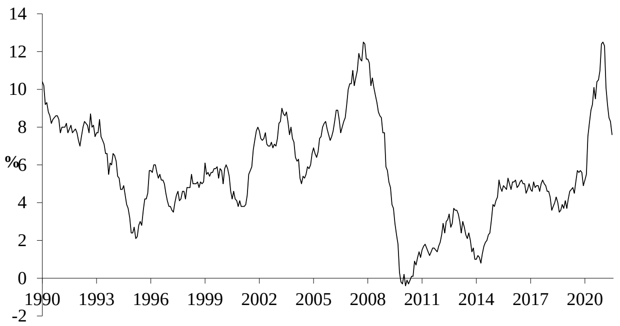

**UK: M4 Growth**



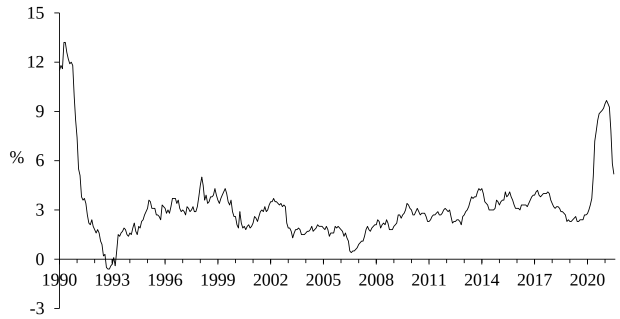

**U.S.: Growth in M2 (Yr - on - Yr)**




**Eurozone M3 Growth**




**Japan: Growth of M2+CD's**



# FOCUS ON JAPAN

Francesco Perugini

## Japan's economic recovery remains uncertain

Japan's economy grew by 1.3% in April–June from the previous quarter — a 7.5% y-o-y increase — marking a reversal from the 0.9% contraction in the previous quarter and raising hopes for a gradual recovery from the painful impact of the coronavirus pandemic. Underpinning growth for April–June were private consumption, rising by 0.8% from the previous quarter following a 1% decline in the first quarter, and private residential investment, which grew by 2.1%. Exports jumped by 2.9% as Japan benefited from the ongoing overseas economic revival from the pandemic damage, while imports surged 5.1%. Japan's exports grew to the U.S., Asia and Europe; while imports increased from Brazil, Belgium and Kuwait. By category, exports grew in food, iron and steel products, and electronic parts. Imports rose in food, auto parts and oil. Japan had a trade surplus with the U.S., but a deficit with China in July.

The economic expansion comes even as Japan is seeing a surge in COVID-19 cases that are causing some hospitals to turn away patients. The government state of emergency was recently extended through September 12. It had previously been set to end at the end of August. Prime Minister Yoshihide Suga also expanded the regions under emergency and a less strict quasi-emergency to about two-thirds of the nation. He promised hospital systems will be reorganized to increase the number of wards caring for COVID-19 patients. The emergency is centred around having restaurants and bars close early and not serve alcohol and asking department stores and shopping malls to limit crowd size. Some government advisers have suggested stricter measures may be needed. Japan has had more than 15,000 COVID-19-related deaths. But worries are growing about the new more contagious delta variant.

Some analysts had expected the Japanese economy to continue to contract, given recent negative data about housing and investments. They say the Japanese economy is unlikely to return to its pre-pandemic level by the end of 2021 as projected by the government, due to the prolonged COVID-19 emergencies. While others expect it to bounce back from the coronavirus pandemic more rapidly as have other advanced nations in the west, these economists also warn that there is a risk of contraction in the third quarter as the government considers stronger restrictions across the country's big cities to control the spread of Covid infections. "Downside risks are actually increasing for the July to September quarter, so it's hard to be bullish about the outlook," said Yoshiki Shinke, chief economist at Dai-ichi Life Research Institute. "The gap with other advanced economies expanded in the second quarter but that's likely to remain the case in the July to September quarter as well." The eurozone economy grew 2% from the first to the second quarter, while the US logged growth of 1.6% and China's economy expanded 1.3% in the same period. "The emergency will be probably extended to around October," said Keiji Kanda, a senior economist at the Daiwa Institute of Research. "That means, most of the July–September period will be under the state of emergency, and economic growth in the quarter will be very slow." By contrast, noting the limited number of severe cases and deaths compared with the rise in new infections, Naohiko Baba, chief economist at Goldman Sachs, said the boost in sentiment from increased vaccination rates should materialise in the months ahead. "As the effect of vaccinations becomes even more apparent, we forecast pent-up demand will emerge particularly in the fourth quarter," Baba said, estimating real GDP growth of 8.4% in the final three months of 2021. Also Taro Saito, executive research fellow at the NLI Research Institute, pointed out that components of GDP other than consumer spending have become less influenced by virus measures. Among them, capital spending will continue to grow throughout fiscal 2021 and 2022 (which ends in March 2023), he predicts.

Uncertainty mainly remains because of the rising cases of COVID-19 infections in Japan, which has a vaccine rollout that's among the slowest for industrialized countries. About a third of the population is now fully vaccinated. But hospitals in some regions are being stretched, and sick people are being asked to just stay home. Robert Carnell, regional head of research Asia-Pacific at ING, said the GDP numbers were better than he had expected. "Normally, we'd put all of this together and forecast a slightly stronger GDP result for the third quarter based on the factors described above. But these are not normal times," he said, referring to the worries about the COVID-19 infections.

Japan has never had a lockdown but has repeatedly declared a government "state of emergency," for some areas, including Tokyo. Some places have ignored the emergency requests. Tokyo streets are bustling with crowds of people, and commuter trains are packed. Observers say that the current state of emergency can't really contain people and mobility. One possible kind of risk is that the government decides to tighten the regulations once again. Overall, the recovery will depend on whether the government's vaccination program and other efforts can control the virus's spread. The country is giving over a million shots a day. If it can keep up that pace, it will top vaccination levels in the US and the UK by early autumn.

# MARKET DEVELOPMENTS

The recovery remains good for equities, as also is the Bank of England's reluctance to raise rates for now. Looking into 2023, rates will be rising as inflation remains persistent; but higher profits should sustain equities.

**Table 1: Market Developments**

| | Market Levels | | Prediction for Jun/Jul 2022 | |
|---|---|---|---|---|
| | Aug 9 | Aug 30 | Previous Letter | Current View |
| **Share Indices** | | | | |
| UK (FT 100) | 7132 | 7148 | 11475 | 11597 |
| US (S&P 500) | 4432 | 4529 | 6020 | 5966 |
| Germany (DAX 30) | 15745 | 15887 | 25811 | 26673 |
| Japan (Tokyo New) | 1929 | 1950 | 2463 | 2585 |
| **Bond Yields (government** | | | | |
| UK | 0.57 | 0.56 | 1.50 | 1.50 |
| US | 1.32 | 1.28 | 3.00 | 3.00 |
| Germany | –0.47 | –0.42 | 0.00 | 0.00 |
| Japan | 0.03 | 0.03 | 0.10 | 0.10 |
| UK Index Linked | –2.53 | –2.53 | 1.00 | 1.00 |
| **Exchange Rates** | | | | |
| UK ($ per £) | 1.38 | 1.38 | 1.30 | 1.30 |
| UK (trade weighted) | 82.48 | 81.61 | 78.8 | 78.8 |
| US (trade weighted) | 109.78 | 100.33 | 100.5 | 100.5 |
| Euro per $ | 0.85 | 0.85 | 0.88 | 0.88 |
| Euro per £ | 1.18 | 1.17 | 1.14 | 1.14 |
| Japan (Yen per $) | 110.29 | 109.91 | 107.5 | 107.5 |
| **Short Term Interest Rates** | | | | |
| UK | 0.63 | 0.63 | 1.50 | 1.50 |
| US | 0.19 | 0.19 | 1.00 | 1.00 |
| Euro | –0.49 | –0.49 | –0.50 | –0.50 |
| Japan | 0.00 | 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 | 55.00 | | 66.20 |
| US | 1.99 | 2.4 | 2.3 | 29.90 | 5.50 | 42.09 |
| Germany | 3.30 | 1.8 | 1.6 | 66.00 | 1.88 | 74.58 |
| Japan | 1.90 | 1.5 | 0.5 | 32.00 | 7.57 | 43.47 |
| UK indexed[2] | –2.53 | | 5.0 | 10.00 | | 12.48 |
| Hong Kong[3] | 2.60 | 5.2 | 2.3 | –2.00 | 5.50 | 13.60 |
| Malaysia | 3.30 | 6.9 | 2.3 | 81.00 | 5.50 | 89.10 |
| Singapore | 3.50 | 5.0 | 2.3 | 50.00 | 5.50 | 82.80 |
| India | 1.40 | 5.5 | 2.3 | 15.00 | 5.50 | 29.70 |
| Korea | 1.10 | 2.2 | 2.3 | –11.00 | 5.50 | 8.90 |
| Indonesia | 2.20 | 4.8 | 2.3 | 37.00 | 5.50 | 48.50 |
| Taiwan | 2.80 | 3.5 | 2.3 | 40.00 | 5.50 | 54.10 |
| Thailand | 3.20 | 4.1 | 2.3 | 47.00 | 5.50 | 50.00 |

**Bonds: Contribution to £ yield of: –**

| | Redemption Yield | Changing Nominal Rates | Currency | Total |
|---|---|---|---|---|
| UK | 0.56 | –9.37 | | –8.81 |
| US | 1.28 | –17.16 | 5.50 | –10.37 |
| Germany | –0.42 | –4.19 | 1.88 | –2.73 |
| Japan | 0.03 | –0.70 | 7.57 | 6.90 |

**Deposits: Contribution to £ yield of:**

| | Deposit Yield | Currency | Total |
|---|---|---|---|
| UK | 0.63 | | 0.63 |
| US | 0.19 | 5.50 | 5.69 |
| Euro | –0.49 | 1.88 | 1.39 |
| Japan | 0.00 | 7.57 | 7.57 |

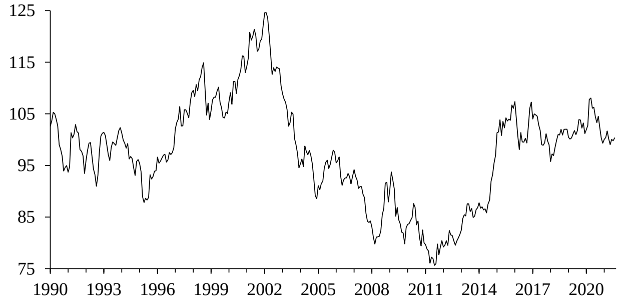
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

**Table 3: Portfolio(%)**

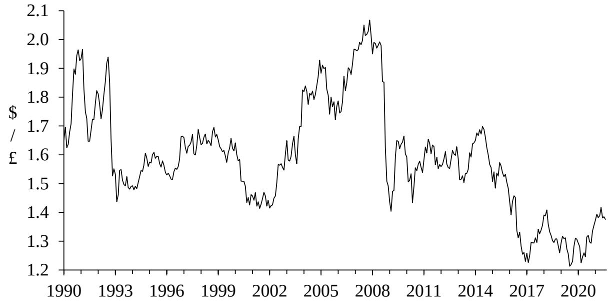
| | Sterling Based Investor | | Dollar Based Investor | | Euro Based Investor | |
|---|---|---|---|---|---|---|
| | August Letter | Current View | August Letter | Current View | August Letter | Current View |
| UK Deposits (Cash) | 5 | 5 | 5 | 5 | 1 | 1 |
| US Deposits | - | - | - | - | - | - |
| Euro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

# INDICATORS AND MARKET ANALYSIS
# FOREIGN EXCHANGE MARKETS

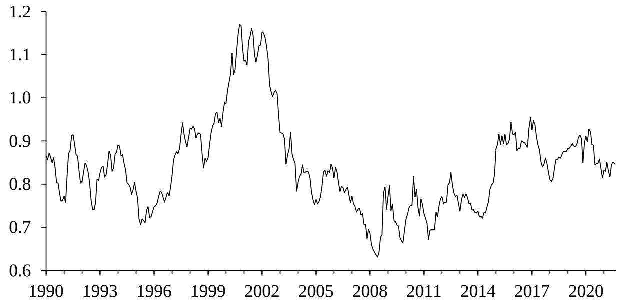
**US : Trade Weighted Index**
**(Bank of England 1990 = 100)**



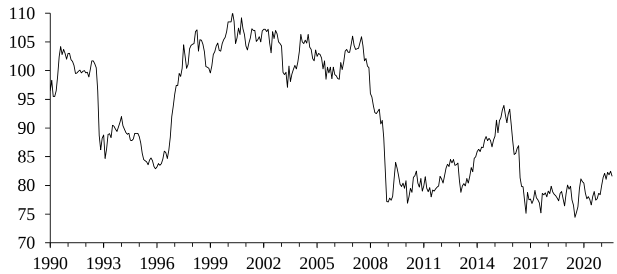

**UK: Dollars Per Pound Sterling**



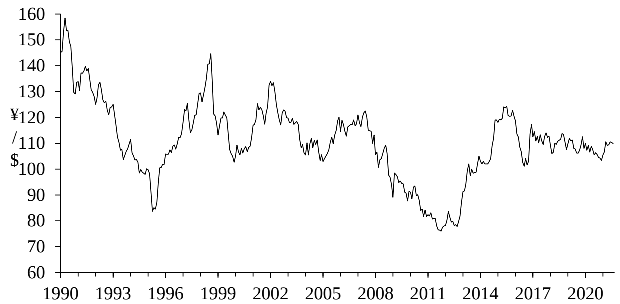

**Euro per US dollar**




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

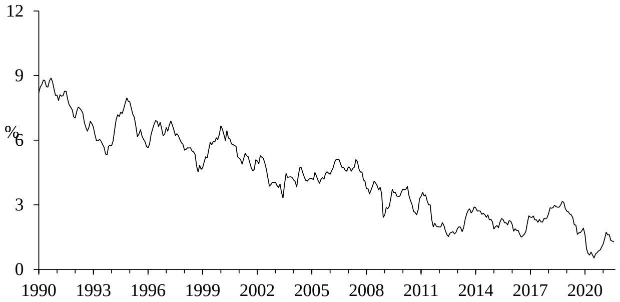



**Japan : Yen Per U.S. Dollar**

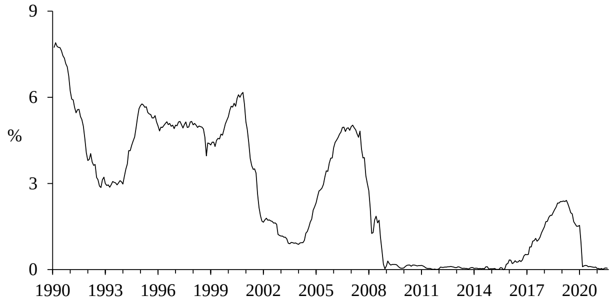


# GOVERNMENT BOND MARKETS

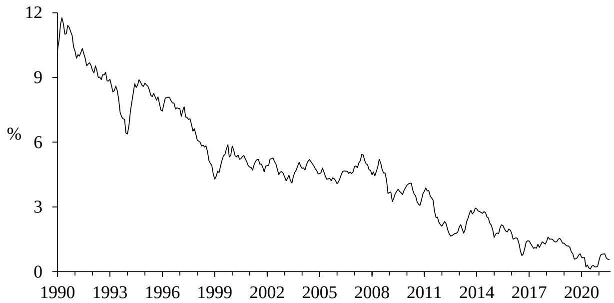
**U.S.: Yield on Long-Term Government Bonds**



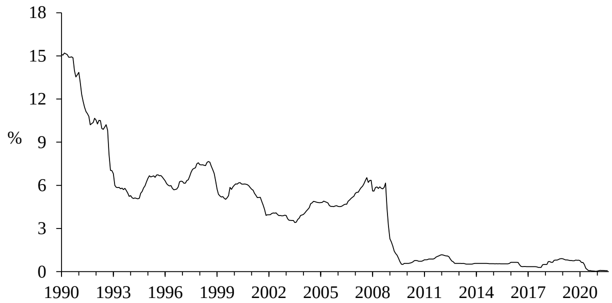

**U.S. : 3-Month Treasury Bill**



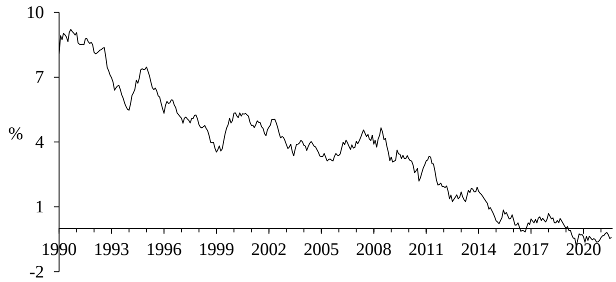

**U.K.: Yield on Long-Term Government Bonds**



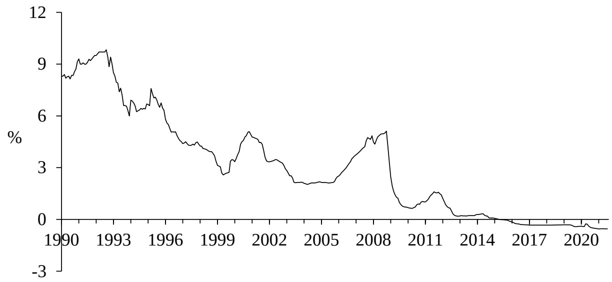

**U.K. : 3-Month Certificate LIBOR Rate**



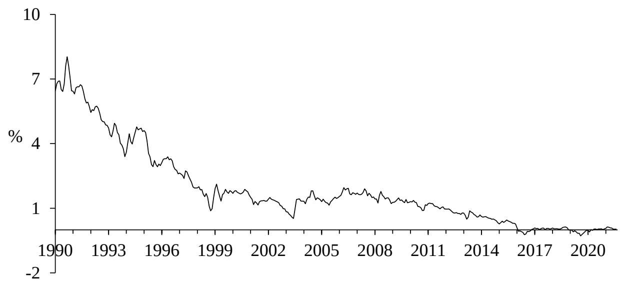

**Germany: Yield on Public Authority Bonds**



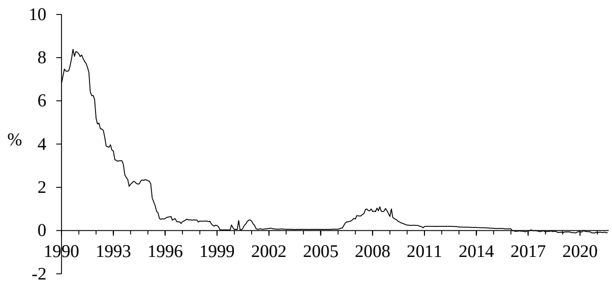

**Germany : 3-Month Interbank Deposit Rate**




**Japan: Yield on Long-Term Government Bonds**

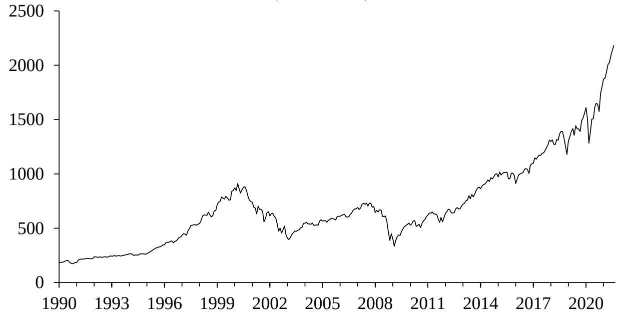



**Japan : 3-Month Money Market Rate**

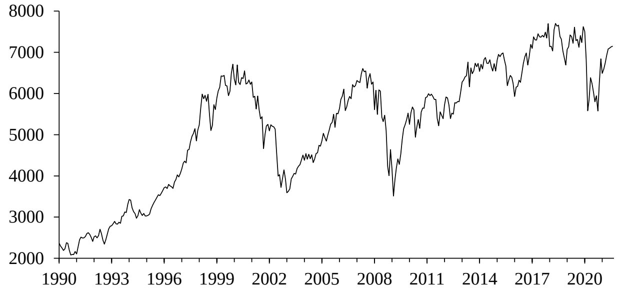


# MAJOR EQUITY MARKETS

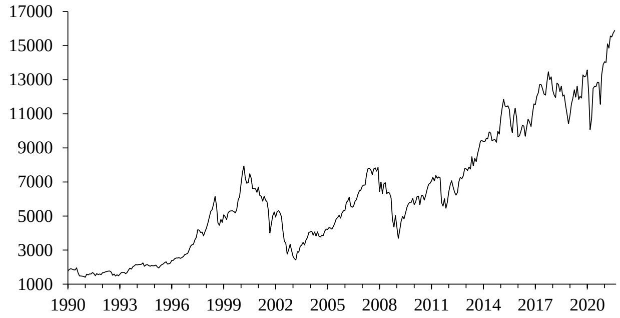
**U.S. : S & P 400 Industrial**
**(1985=100)**




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




**Germany : DAX 30**




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

# EMERGING MARKETS

Anupam Rastogi

## India

Indian economic growth touched a record high in the second quarter of 2021, riding on a very weak base of the last year. But the quarter saw a devastating second wave of Covid cases from the Delta variant of Covid-19, and yet, there was a rebound in consumer spending, and improved manufacturing. This augurs well for the rest of the fiscal year which has another three quarters to go. We maintain our forecast of 10% GDP growth in the current fiscal year and a somewhat bearish forecast for the next fiscal year. Gross domestic product rose 20.1% in the three-month period of April–June 2021, compared with a record contraction of 24.4% in the same quarter a year earlier.

The YoY rebound was primarily on the back of robust expansion in private consumption and public sector investment, even as Government consumption dropped on a high base.

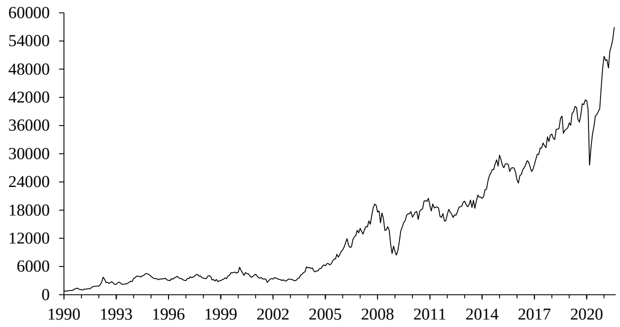
India is aggressively following a policy of living with the virus and has been vaccinating people at a furious pace of 10 million per day from the last week of August. As supply of vaccines is catching up with the demand, India is on target to meet its target of complete vaccination by end of the year. So far, more than 17% of the eligible population is fully vaccinated and more than 55% of the population has got at least one dose of vaccine. Studies show that more than 70% of the population above eight years of age have Covid-19 antibodies. Many provincial states have allowed in-person classes in schools under the Covid-19 protocols and almost everywhere business and industry is functioning at pre-pandemic levels. High-frequency indicators such as Manufacturing PMI, e-Way bills, indirect tax collections, Google mobility indicators, demand for electricity and transport loading are growing at a healthy pace. But, industrial capacity utilization is below 70%, and hence, investment demand would remain subdued in the coming quarters.

At a time when manufacturing activity contracted in most parts of Asia, India reported PMI in expansion mode, with the Purchasing Managers Index (PMI) standing at 52.3 in August 2021 compared to 55.3 a month earlier.

Central banks around the world say that the recent increase in price pressures is because of disruptions in supply chains, rather than excess demand. They are also wary of premature withdrawal of monetary policy support from economies that are not yet out of the woods.

Inflation broke above the Reserve Bank of India's 2–6% target range in May and June before slipping back, while the central bank has maintained its lower-for-longer stance to

**India: BSE Sensitive**




nurse the economy's recovery from the pandemic. The central bank sees inflation at 5.7% in the financial year to March 2022, viewing the current surge in inflation as temporary.

The RBI last slashed its repo rate — the rate at which it lends to commercial banks — in May 2020 and has maintained an accommodative monetary policy stance to help India get its growth rate back on track. Moreover, the Reserve Bank of India (RBI) is on record that would not surprise the market with a sudden rate hike and all monetary policy actions would be carefully calibrated. The current inflation trajectory is transitory according to the RBI. The WPI inflation is at a three-month low but has remained in double digits in this fiscal year so far. It was largely due to the low-base effect as there was deflation of 0.25% YoY in July 2020.

Exports during April–July 2021–22 rose by 74.5% year-on-year to USD 130.8 billion, as against USD 75 billion in the same period last year. Imports during the first four months of the fiscal increased by 94% to USD 172.5 billion.

India's merchandise exports rose to a record high of $35.2 billion in July 2021. The export boost has led to a sharper economic rebound after the second Covid-19 wave. India's imports in July grew by 63% to $46.40 billion with oil imports soaring by 97.45% to $12.89 billion. The trade deficit for July 2021 is estimated at USD 11 billion as against USD 4.8 billion in July 2020.

Ironically, while FY21 was the worst year for the economy since 1947, it was the best-ever for equity investors. The Indian equity market was helped by strong retail and institutional flows amid relatively better earnings prospects. The benchmark Indian indices gained 45% and 19% in the past 12 months and year-to-date, respectively. India has outperformed the MSCI World index, a gauge for the developed markets, and MSCI Emerging index, a measure of performance of equities in the developing economies, by 15% and 29%, respectively, in the past 12 months. Silent structural changes in retrospective taxation, in goods and services tax, in the Insolvency and Bankruptcy Code, and the Public Sector Enterprises Policy are attracting new investors in many fields.

The Indian rupee continued to strengthen as foreign flows, at least on the equity side, have been strong and India's forex reserves are more than $620 billion. The thrust on production linked incentives (PLI) to manufacturers and Make in India appear to have favoured India's trade economics. The RBI's absence from the market has allowed INR to find its own level.

The Reserve Bank of India may launch its first digital currency trial programs by December according to the RBI governor Shaktikanta Das. He said that the RBI is studying various aspects of a digital currency including its security, its impact on India's financial sector as well as how it would affect monetary policy and currency in circulation.

| | **19–20** | **20–21** | **21–22** | **22–23** | **23-24** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 4.0 | -7.3 | 10.0 | 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 |

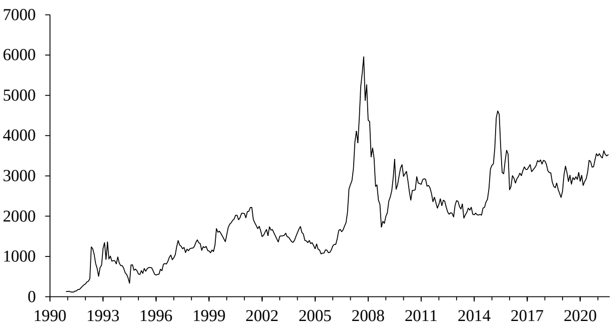
## China

China's economic activities expanded at a slower pace while the services sector slumped into contraction. The official manufacturing Purchasing Manager's Index (PMI) fell to 50.1 in August from 50.4 in July and the services sector index slumped to 45.2 from 52.5. The economy weakened due to domestic COVID-19 outbreaks, high raw material prices, slowing exports and tighter measures to tame hot property prices and a campaign to reduce carbon emissions. It is a failure of policy objective of 'eradication of Covid-19' rather than 'learn to live with the virus' which has caused it and would continue to hobble the economy until the folly is realized by the policy makers. All 31 Chinese provincial-level authorities issued travel warnings, and much of the country — even areas free from the new strain — have reimposed restrictions on entertainment activities and large-scale gatherings. As a result, numerous fairs and conferences scheduled for August were cancelled.

The real-estate sector is under strain and regulators are determined to prevent another sharp rise in leverage. Moreover, consumer hesitancy, a tough labour market for young people, and the damage to household balance sheets from last year's spring shutdown will continue to prevent a full recovery to the pre-2020 trend. The long-term plan and recent clamp down on the tech sector suggest that the Chinese leadership wants to steer the economy to a lower growth rate with state capitalism.

As the assumptions of our forecast have not changed, we maintain GDP growth rate of 8% in 2021 and 5.2% in 2022 and the consumer price index (CPI), a main gauge of inflation remaining well under control in 2021 and 2022 at 1.8% and 2%. The CPI rose 1% year on year in July, lower

**China: SSE Composite Index**




than the 1.1% recorded in June. The producer price index (PPI), which measures costs for goods at the factory gate, expanded 9% year on year in July, slightly higher than the 8.8% growth seen in June. The surge in PPI is fuelling concern that price pressures in the world's second-largest economy may not be transient.

China's export growth slowed in July following outbreaks of COVID-19 cases, while imports also lost momentum, pointing to a slowdown in the country's industrial sector in the second half even as easing of global lockdowns boosted commerce. Exports in July rose 19.3% from a year earlier, compared with a 32.2% gain in June. Although orders are recovering, there are too many uncertainties in the second half of the year, like how the domestic epidemic develops and the cost of raw materials. At the same time, foreign production capacity is slowly picking up which will impact China's exports in the long-term. Imports in July rose slower at 28.1% from a year earlier compared to 36.7% growth in the previous month. Demand has dropped in recent months for iron ore, a key ingredient in steelmaking. China's crude oil imports, however, rebounded in July from a six-month low as state-backed refiners ramped up output after returning from maintenance.

Global demand for China's Treasuries remains intact. The allure of China's Treasuries may not be hurt by local and idiosyncratic events given their relatively high yields compared to the bonds of other major governments. The 10-year government bond yield climbed after China's July factory-gate inflation touched a 13-year high of 9% in May. A rise in short-term interbank rates also weighed on government debt. Remnibi's depreciation in the last month reflects this and the currency would depreciate as China loses its competitiveness under its demographic burden.

It is becoming more and more evident than what the popular media was led to believe that China is on the path of democracy which would eventually lead to a capitalist system where individual's right to own property will be protected. Chinese 'common prosperity' is disgorging of profits and it is a system in which the purpose of firms is to fulfil the goals of the Communist Party. This system cannot boost innovation and risk taking behaviour of entrepreneurs amid an increasingly challenging external environment. Our understanding of the Chinese political system suggests that the high-handed approach of Beijing would eventually slow down innovation. Change in areas like retailing, wholesaling, transport and distribution, where there are opportunities for productivity growth using technology would get stunted. The extrapolation of China's past performance into the 2020s and beyond seems to be a distant dream now.

| | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|
| GDP (%p.a.) | 6.1 | 2.3 | 8.0 | 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 | 80.0 | 60.0 | 52.0 |
| Rmb/$(nom.) | 7.1 | 6.7 | 6.5 | 6.7 | 6.7 |

## South Korea

South Korea is battling its largest outbreak of the pandemic, reporting more than 1,000 new daily cases for more than 50 days. The country has extended social distancing measures in the Seoul metropolitan area until September 5. This has dented private consumption but not exports. However, while the continued spread of the Delta variant of COVID-19 is impacting the recovery prospects of the South Korean economy, we maintain our forecast of 4% GDP growth for 2021 and tapering to 3% in 2022. The country's continued expansionary fiscal expenditure is expected to offset some of the economic risks amid the continued stringent COVID-19 containment measures.

A 34.9 trillion won ($30 billion) extra budget passed last month to shore up consumption could boost economic activity and add upward pressure on prices in the short-term. The stimulus aims to provide cash handouts to almost 90% of South Korean households and fuel consumer spending.

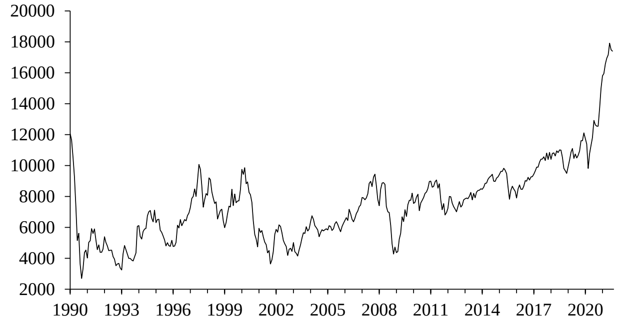
About 26% of South Korea's nearly 52 million people have been fully vaccinated, compared with around 55% in China and 78% in Singapore. South Korea aims to fully vaccinate 70% of the population by October.

South Korea's consumer inflation pierced the central bank's annual 2% target for a fourth straight month. The benchmark consumer price index gained 2.6% from a year earlier after June's 2.4% rise. We have kept our forecast of 2% for 2021 as the central bank raised the benchmark rate by 25 basis points to 0.75% from its historically low 0.50% that had been in place since May 2020. The base rate hike will go a long way to bridge the widening financial imbalance due to soaring asset prices and increasing household debts due to prolonged low interest rates. In our opinion, the central bank could hike the seven-day repo rates by another 0.25 percentage point to 1% by year-end to contain growing asset bubbles.

South Korea posted a trade surplus for 16 straight months in August due to a strong recovery in export. Exports, which make up about half of the South Korean economy, jumped 34.9% from a year earlier, while imports soared 44%.

**Korea: Composite Index**


**Taiwan: Weighted TAIEX Price Index**




South Korea's outbound shipments are predicted to increase 34.5% on-year in August on strong global demand for chips and automobiles despite the protracted COVID-19 pandemic. Exports reached $53.2 billion in August and may slow down in September and October, due to the slowing Chinese economy coupled with disruptions at production lines in Southeast Asia. Imports climbed 44% on-year in August to $51.5 billion, resulting in a trade surplus of $1.67 billion in August.

The won is maintaining its level around 1150 won to a USD. The Kospi is still up 9% so far this year, outperforming a little-changed MSCI Asia Pacific index.

| | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|
| GDP (%p.a.) | 1.8 | -1.0 | 4.0 | 3.0 | 2.5 |
| Inflation (%p.a.) | 0.4 | 0.5 | 2.0 | 1.4 | 1.0 |
| Current A/c(US$ bill.) | 60.0 | 70.0 | 60.0 | 40.0 | 40.0 |
| Won/$(nom.) | 1200 | 1070 | 1150 | 1130 | 1100 |

## Taiwan

Taiwan's economy is set to grow at its fastest pace in more than a decade in 2021. In 2021, it is expected to grow 5.9% and will maintain its growth momentum at the rate of 3.7% in 2022 on a strong rebound in exports for the tech heavyweight island. In 2021, global demand for the island's technology products buoyed by a work-and-study-from-home boom during the COVID-19 pandemic, as workers and students rushed to buy smartphones, tablets and laptops.

The Covid-19 outbreak has been contained and restrictions, including on personal gatherings and in-restaurant dining, were eased in July. Vaccination drives beyond metropolitan Taipei are being maintained subject to availability of vaccines.

Inflation is forecast to be 1.5% in 2021. Inflation is well under control according to the central bank governor Yang Chin-long as he replied to lawmakers' questions about prospects for an interest rate rise. According to him, inflation between 1.6% to 1.7% suggests that the economy is not overheating. The bank will hold its next quarterly meeting, where it makes rate decisions, on September 23. No increase in the benchmark interest rate is expected.

Taiwan's spiralling trade surplus would keep it on the U.S. Treasury's foreign exchange watchlist when the next report is released. The U.S. decided not to designate Taiwan as a currency manipulator in April, even though its trade and current account surpluses and intervention in currency markets meant it met the thresholds for that label. Since then, the imbalances have only intensified, with the trade surplus soaring on higher prices and rising demand for its exports of electronics and computer chips.

Taiwan's exports are growing at an unrelenting pace fuelled by overseas demand for computer chips and electronic components, reflecting strengthening optimism that the post-Covid global recovery is taking hold.

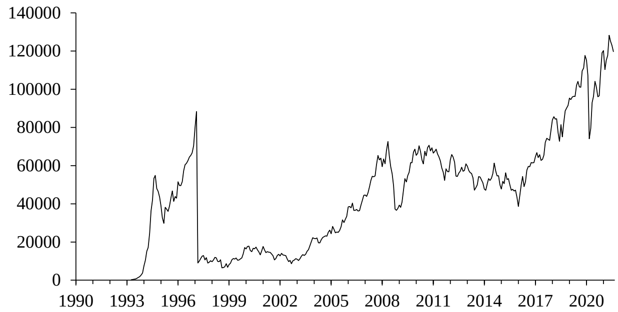
Taiwan's overseas shipments rose 34.7% in July from a year earlier to $37.95 billion. Total imports rose 41% to $32.05 billion, leaving a $5.9 billion trade surplus. Exports to mainland China and the U.S. both rose by more than 20% from a year earlier in July, while shipments to Japan, South Korea and Singapore were all up more than 40%.

China's growing assertiveness toward Taiwan has triggered a public push by Japanese leaders to plan for a possible conflict, a shift that could lead to closer cooperation with the U.S. military. Japan is preparing for a crisis near its southern borders despite Japan's pacifist constitution. Japan doesn't have formal diplomatic relations with Taiwan. But last month, lawmakers in Tokyo and Taipei held a rare meeting by videoconference to discuss ways to boost ties, including possible cooperation in maritime rescue. The Japanese military will have drills in September to further help Tokyo prepare for any trouble in areas around Taiwan.

On the other hand, Chinese leader Xi Jinping in July, renewed a commitment to complete reunification and "smash" any push for Taiwanese independence. The Biden administration has approved its first arms sale to Taiwan. It will sell Taiwan 40 new M109 self-propelled howitzer guns which are intended to fulfil both the role of an ordinary cannon or a field gun.

| | **19** | **20** | **21** | **22** | **23** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 2.0 | 3.1 | 5.9 | 3.7 | 3.0 |
| Inflation (%p.a.) | 1.0 | -1.0 | 1.5 | 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 | 28.0 | 27.5 | 27.0 |

**Brazil: Bovespa**




## Brazil

Brazil's GDP is all set to grow 5% in 2021, maintaining our cautious stance, despite a slow down in the world economy in the last quarter of 2021. President Jair Bolsonaro is contemplating a new round of Covid cash handouts for low-income Brazilians as his popularity sinks ahead of next year's elections, but it has to pass through the legislative process.

Inflation in Brazil is far more than the upper limit of the government's target band at 5.25%. Between mid-July and mid-August, inflation rose 1.97% due to a 5% surge in electricity prices. Brazil's regulated energy price rate has been at its highest level since July due to the most severe drought in decades. The elevated rate of inflation is likely to continue for the rest of the year. The central bank has responded by raising the benchmark interest rate, which climbed from 2 to 5.25% between January and August. The bank has signalled it will do so again in September. In 2022 also, inflation is likely to remain above the central bank's band of 2% to 4%. Our forecast of inflation in 2022 is 5% as energy prices will stay at elevated levels because the government is forced to rely on thermal plants, which are more polluting and expensive electricity producers, compared to hydraulic power plants which are running below their capacity due to the drought.

Brazil's trade surplus narrowed in July as exports declined from the previous month and imports rose. The trade surplus was $7.4 billion in July, after a surplus of $10.4 billion in June.

The Brazilian real is holding its ground in the short term, supported by a sharp rise in the benchmark interest rate by the central bank to quell inflation amid rising political tensions.

The political scene is heating up. President Jair Bolsonaro escalated a clash with the judiciary after the approval of an investigation into the leader's accusations that Brazil's electronic voting system is vulnerable to fraud. He has told his supporters that he will be either killed, arrested or re-elected. A few political analysts see 'increase in risk' as the Bolsonaro's administration may not respect a constitutionally mandated spending cap that prevents the budget increasing above inflation — a preoccupation for investors, given Brazil's already high level of public debt, now at 84% of gross domestic product. For many, this carries greater significance than the presidential election scheduled to be held in Brazil on 2 October 2022.

Developments around the new planned cash transfer programme and next year's budget, as well as a tax reform bill and possible changes to payments of court-ordered public debts, are likely to have a major influence on stock markets and the Brazilian real.

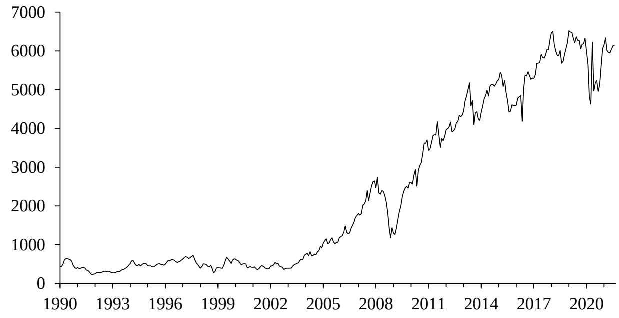
Brazilian President Jair Bolsonaro popularity is taking a hit in the polls amid a slew of criminal investigations and a Senate inquiry into his handling of the pandemic. A year after the presidential elections, Bolsonaro's disapproval rating rose to the highest of his term, with 54% of Brazilians rating him as "bad or terrible". Former President Luiz Inacio Lula da Silva now has 40% support compared to 24% for Bolsonaro. In addition to making thinly veiled threats against next year's presidential elections, Bolsonaro has pledged to boost payments under a revamped welfare scheme for the nation's poorest.

| | **19** | **20** | **21** | **22** | **23** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 0.8 | -4.5 | 5.0 | 2.2 | 2.0 |
| Inflation (%p.a.) | 4.3 | 4.5 | 6.0 | 5.0 | 4.0 |
| Current A/c(US$ bill.) | -36.0 | -7.6 | -10.0 | -16.0 | -22.0 |
| Real/$(nom.) | 4.2 | 5.5 | 5.0 | 5.3 | 5.4 |

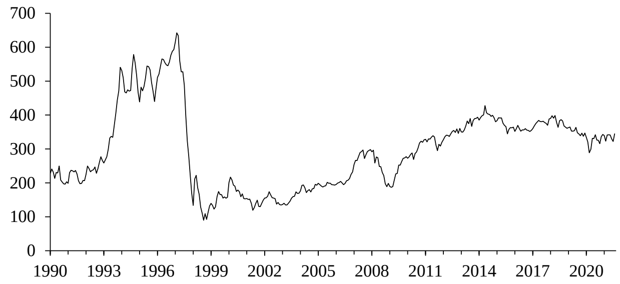
## Other Emerging Markets

**Hong Kong: FT-Actuaries**

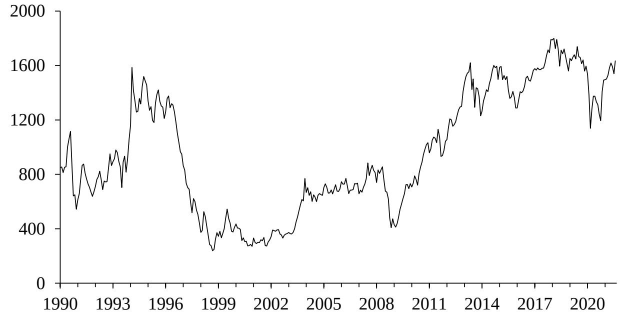

**Indonesia: Jakarta Composite**



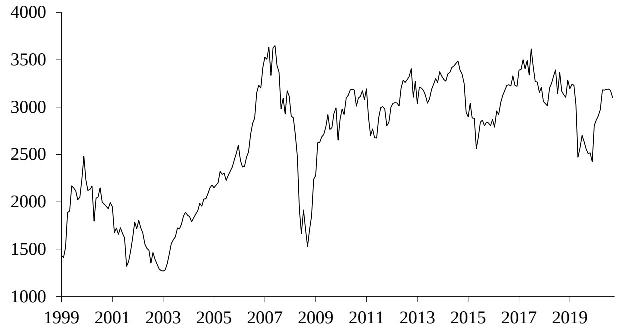

**Malaysia: FT-Actuaries (US$ Index)**




**Thailand: Composite Index**



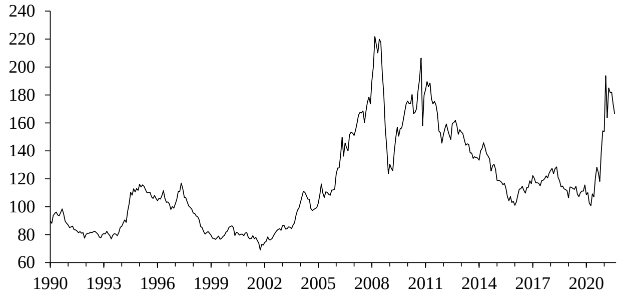

**Singapore: Straits Times Index**



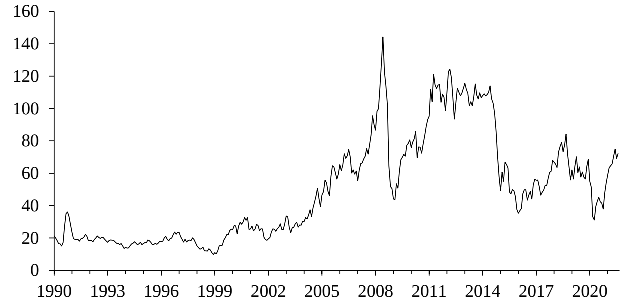

**Philippines: Manila Composite**

# COMMODITY MARKETS

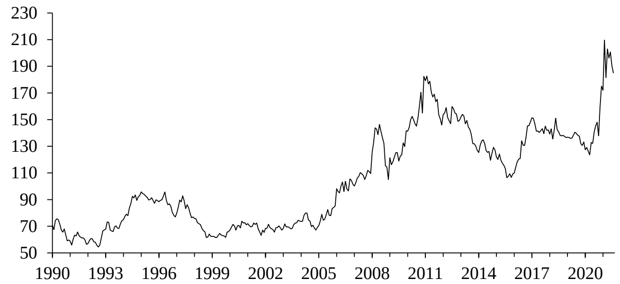
**Commodity Price Index (Dollar)**
**(Economist, 2015 = 100)**



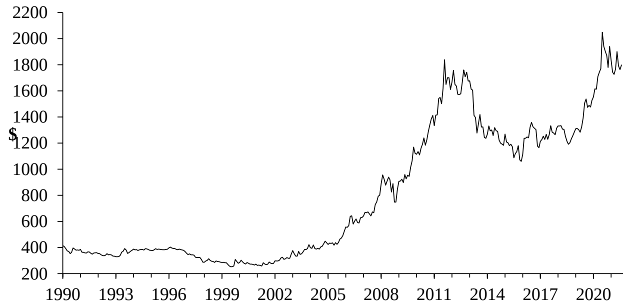

**Oil Price: North Sea Brent (in Dollars)**



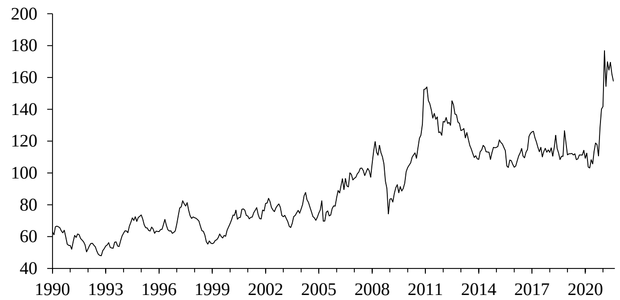

**Commodity Price Index (Sterling)**
**(Economist, 2015 = 100)**




**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 | -1.1 | 1.7 | -1.2 |
| 2021 | 1.8 | 0.4 | 0.1 | 81.3 | 77.2 | -3.8 | 3.0 | -3.4 |
| 2022 | 5.0 | 1.5 | 1.5 | 78.7 | 77.6 | -2.8 | 6.1 | -2.9 |
| 2023 | 4.0 | 4.7 | 4.5 | 77.8 | 78.9 | 1.1 | 5.5 | 1.4 |
| 2024 | 3.0 | 5.0 | 5.0 | 77.5 | 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 | -1.1 | 1.3 | -1.2 |
| 2020:3 | 0.8 | -0.1 | 0.1 | 77.6 | 72.2 | -1.4 | 1.3 | -1.6 |
| 2020:4 | 0.8 | 0.0 | 0.1 | 78.0 | 72.6 | -1.7 | 1.4 | -1.8 |
| 2021:1 | 0.8 | 0.2 | 0.1 | 80.7 | 76.2 | -2.7 | 1.4 | -2.6 |
| 2021:2 | 1.9 | 0.4 | 0.1 | 81.7 | 77.6 | -3.4 | 3.4 | -3.1 |
| 2021:3 | 2.0 | 0.6 | 0.1 | 81.8 | 78.2 | -4.2 | 3.5 | -3.7 |
| 2021:4 | 2.1 | 0.6 | 0.2 | 80.9 | 77.0 | -4.8 | 3.6 | -4.4 |
| 2022:1 | 4.9 | 1.0 | 1.0 | 78.9 | 77.3 | -3.8 | 5.4 | -3.8 |
| 2022:2 | 5.0 | 1.5 | 1.5 | 78.6 | 77.3 | -3.0 | 6.5 | -3.0 |
| 2022:3 | 5.0 | 1.6 | 1.7 | 78.3 | 77.3 | -2.6 | 6.3 | -2.7 |
| 2022:4 | 5.1 | 2.0 | 2.0 | 79.0 | 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 | 279.4 | 1.6 | 4.5 | 1.3 | 149.9 |
| 2021 | 292.1 | 5.6 | 4.9 | 1.5 | 154.0 |
| 2022 | 308.0 | 4.5 | 5.0 | 1.5 | 154.7 |
| 2023 | 324.4 | 4.3 | 3.6 | 1.0 | 156.7 |
| 2024 | 338.1 | 4.2 | 2.8 | 0.7 | 158.5 |
| 2020:1 | 279.7 | 2.7 | 4.0 | 1.1 | 150.0 |
| 2020:2 | 270.1 | -0.2 | 4.1 | 1.2 | 145.9 |
| 2020:3 | 279.3 | 0.2 | 4.8 | 1.4 | 149.4 |
| 2020:4 | 288.5 | 3.7 | 5.2 | 1.6 | 154.2 |
| 2021:1 | 292.5 | 4.5 | 4.9 | 1.5 | 155.5 |
| 2021:2 | 287.3 | 7.3 | 4.7 | 1.4 | 152.1 |
| 2021:3 | 289.9 | 5.4 | 5.0 | 1.5 | 152.0 |
| 2021:4 | 298.7 | 5.4 | 5.0 | 1.5 | 156.3 |
| 2022:1 | 309.3 | 4.6 | 5.3 | 1.6 | 156.9 |
| 2022:2 | 299.2 | 4.5 | 5.2 | 1.6 | 150.7 |
| 2022:3 | 306.5 | 4.4 | 5.0 | 1.5 | 153.0 |
| 2022:4 | 317.3 | 4.6 | 4.7 | 1.4 | 158.0 |

[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 | 162.5 | 778073.6 | 444342.1 | 284477.5 | 211515 | -29463.4 | 132797.6 |
| 2022 | 175.6 | 841052.4 | 466406.2 | 314412.8 | 224219.9 | -23606.4 | 140380.1 |
| 2023 | 179.9 | 861289.7 | 480436 | 311994.5 | 230959.3 | -18606.2 | 143493.9 |
| 2024 | 183.6 | 879371.3 | 493915.4 | 309800.3 | 237826.1 | -15888.6 | 146281.9 |
| | | | | | | | |
| 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 | 8.1 | | 4.7 | 14.6 | 6.6 | | 6.7 |
| 2022/21 | 8.2 | | 5.0 | 10.5 | 6.0 | | 5.7 |
| 2023/22 | 2.4 | | 3.0 | -0.9 | 3.0 | | 2.2 |
| 2024/23 | 2.1 | | 2.8 | -0.7 | 3.0 | | 1.9 |
| | | | | | | | |
| 2020:1 | 163.4 | 195632.5 | 118032.8 | 72147.1 | 51656.8 | -11632.2 | 34572.0 |
| 2020:2 | 131.6 | 157502.4 | 91565.8 | 47009.3 | 43743.5 | 429.6 | 25245.8 |
| 2020:3 | 154.0 | 184370.2 | 109964.7 | 64379.7 | 50846.1 | -9700.7 | 31119.6 |
| 2020:4 | 156.1 | 186946.9 | 108054.2 | 71936.9 | 52938.0 | -12501.5 | 33480.7 |
| | | | | | | | |
| 2021:1 | 153.4 | 183686.9 | 105676.5 | 71230.6 | 51082.9 | -12804.4 | 31498.7 |
| 2021:2 | 160.8 | 192473.4 | 107095.9 | 69800.1 | 51382.3 | -3072.4 | 32732.5 |
| 2021:3 | 164.8 | 197260.7 | 112801.7 | 72236.3 | 52872.3 | -6616.9 | 34032.7 |
| 2021:4 | 170.9 | 204652.5 | 118768.1 | 71210.6 | 56177.5 | -6969.8 | 34533.9 |
| | | | | | | | |
| 2022:1 | 173.6 | 207782.3 | 111591.7 | 87937.4 | 54146.0 | -11003.8 | 34889.0 |
| 2022:2 | 175.0 | 209522.6 | 113522.4 | 79320.0 | 54465.4 | -2829.7 | 34955.5 |
| 2022:3 | 176.4 | 211199.0 | 115432.9 | 80187.0 | 56071.4 | -5098.5 | 35393.8 |
| 2022:4 | 177.5 | 212548.6 | 125859.2 | 66968.4 | 59537.0 | -4674.4 | 35141.6 |

1 GDP at factor cost. Expenditure measure; seasonally adjusted
2 Consumers expenditure less expenditure on durables and housing
3 Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building
4 General government current and capital expenditure including stock building
5 Exports of goods and services less imports of goods and services

## Financial Forecast

| | PSBR/GDP %[1] | GDP[1] (£bn) | PSBR (£bn) Financial Year | Current Account (£ bn) |
|---|---|---|---|---|
| 2019 | 2.3 | 2166.6 | 49.1 | -89.1 |
| 2020 | 16.1 | 1988.4 | 311.2 | -58.2 |
| 2021 | 5.9 | 2297.8 | 135.2 | -48.4 |
| 2022 | 2.2 | 2549.3 | 57.0 | -36.0 |
| 2023 | 1.5 | 2707.0 | 41.5 | -24.3 |
| 2024 | 0.8 | 2846.1 | 22.7 | -17.0 |
| | | | | |
| 2020:1 | -0.9 | 549.4 | -5.0 | -18.7 |
| 2020:2 | 27.0 | 437.6 | 118.0 | -11.9 |
| 2020:3 | 14.5 | 514.8 | 74.8 | -15.3 |
| 2020:4 | 13.8 | 519.8 | 71.9 | -12.3 |
| | | | | |
| 2021:1 | 9.0 | 516.1 | 46.5 | 6.5 |
| 2021:2 | 6.1 | 544.4 | 33.1 | 6.5 |
| 2021:3 | 6.3 | 559.1 | 35.2 | 6.6 |
| 2021:4 | 5.7 | 585.2 | 33.3 | 6.7 |
| | | | | |
| 2022:1 | 5.3 | 611.9 | 32.6 | 7.0 |
| 2022:2 | 2.1 | 622.7 | 13.3 | 7.1 |
| 2022:3 | 2.4 | 632.2 | 15.2 | 7.3 |
| 2022:4 | 2.4 | 639.8 | 15.3 | 7.4 |

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 | 8.1 | 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 | 1.7 | 1.0 | 1.8 | 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 | –0.7 | –1.1 | –3.8 | –2.8 |
| 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 | 0.1 | 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. | –1.8 | –1.7 | –0.5 | –1.2 | –3.4 | –2.9 |
| 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 | 0.1 | 0.4 | 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 | 72.9 | 77.2 | 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 | 101.96 | 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