LIVERPOOL INVESTMENT LETTER

August 2020

Cardiff Business School
Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics

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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 BANK'S MONETARY POLICY IS IGNORING MONEY

Fiscal deficits that were unthinkable a couple of years ago are now commonplace in the developed world. Since last year governments of the US, the UK and Japan have by now each increased their liabilities by some 20% of GDP according to the OECD; for us that is around £400 billion. At the same time central banks have printed astonishing amounts of money in 'Quantitative Easing' programmes whereby they buy assets, mainly government bonds, in the markets. The Bank of England has announced its latest policy decisions; it is holding interest rates unchanged at 0.1% and confirmed that it intends by year end to hold £745 billion of UK government debt on its balance sheet. It plans no tightening in policy until the economy has recovered to its potential level which it does not now expect until the end of next year.

For now, during the Covid crisis, little controversy surrounds these actions. It is all hands, fiscal and monetary, to the pump, to aid economic recovery from the virus. But what comes next? On this issue fighting is breaking out among economists. On the far left of the political spectrum 'modern monetary theory', MMT, holds that government deficits can be as large as you like and should be financed by printing money. On this view there is little risk of inflation because the economy is weak and people hold money as a store of value, just like government bonds which under this monetary expansion would yield no more than money. Indeed, that is pretty much the current situation: interest rates are close to zero on developed country government bonds at all maturities. Inflation is close to zero too.

The problem with MMT comes in the post-Covid recovery. With all this money swilling around the developed world, and incomes returning to normal, demand will surely pick up sharply. Episodes of hyperinflation such as in the Weimar Republic after WW1 started with the printing of money to finance deficits and seemed to go well for a time, until they spiralled out of control with loss of confidence in money. It seems inconceivable today that people should lose confidence in holding dollars or pounds. However the way to think of this post-Covid MMT world is that all government debt has been converted de facto into money; at some point, if people think that governments will not retire this debt/money pile in the long term, they too could lose confidence in its future value, shift into gold and physical assets, causing a hyperinflationary flight from money/debt, so devaluing it to a nugatory level.

As I have argued recently in the Telegraph[1] because today interest rates are close to zero government insolvency is simply not a threat. So deficits have not threatened insolvency, but surely money growth has threatened inflation?

Table 1: Summary of Forecast

	2017	2018	2019	2020	2021	2022	2023
GDP Growth[1]	1.8	1.3	1.4	-6.6	6.2	2.9	3.1
Inflation CPI	2.6	2.4	1.8	1.7	2.0	2.0	2.0
Wage Growth	2.8	3.0	3.5	3.0	3.2	3.1	3.3
Unemployment (%)[2]	4.4	4.2	4.1	7.2	5.6	3.5	2.8
Exchange Rate[3]	77.4	78.6	78.1	78.9	77.9	77.7	77.6
3 Month Interest Rate	0.4	0.7	0.8	0.4	1.9	4.5	5.0
5 Year Interest Rate	0.6	1.0	0.6	0.4	2.6	5.0	5.0
Current Balance (£bn)	-68.3	-82.9	-83.8	-64.3	-54.1	-45.5	-40.3
PSBR (£bn)	53.7	39.3	43.2	239.1	101.9	51.0	7.6

[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index (2005 = 100)

Not until now. After the financial crisis bank lending was held down as harsh new regulations made it too expensive; so overall credit and money grew modestly; and it was no surprise inflation did not rise, in fact with weak post-crisis recovery both inflation and the world economy sagged. It is now in the Covid crisis that money and credit are taking off, because the banks have been freed, indeed encouraged, to lend. Now total money growth is taking off around the developed world, as monitored by Tim Congdon in his latest monetary bulletins[2]. US broad money growth on a year ago is now 27%, the UK's is 11% and the eurozone's 9%; and this is well before the end of the Covid crisis.

According to economic theory all this money growth should lead to high inflation and high interest rates as market expectations of devaluation etc. take off — once the virus recovery has occurred. MMT advocates, like the Weimar Republic's strategists, are sanguine that there will be no inflation, as money is needed for business and the economy's underlying weakness will undermine demand. But this is to put faith in current inflation trends staying weak, against all the dictates of monetary economics; the Bank too is predicting weak inflation MMT-style on the basis of weak demand. We are on the cusp of a huge experiment on the world's economies as recovery occurs.

But it is not a good idea to experiment deliberately on this scale on economies in real time. Do we really want to risk a hyperinflationary collapse of confidence in the world's paper money, with a flight to gold, real assets, barter and private crypto-currencies? We are getting hints of all that in the escalating price of gold. This is all far too dangerous.

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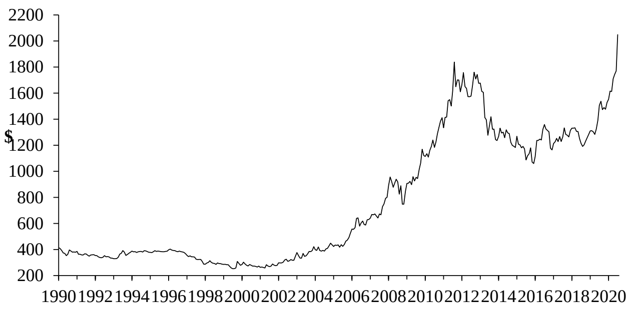
[1]https://www.telegraph.co.uk/politics/2020/07/24/remarkably-v-shaped-recovery-economy-will-look-surprisingly/

[2]https://drive.google.com/file/d/18-MforqXrhGe599gbVa4Ewt--93UxrX3/view

Gold Price (in Dollars)



Instead let fiscal policy support growth, staying solvent according to standard long term balance sheet tests: as we have seen, with interest rates so low the UK government is totally solvent even after the Covid support programmes and even with continuing fiscal support for demand and supply-side reform programmes. There is therefore no need for central banks to threaten hyperinflation by continued massive money printing. The obvious course once the crisis is over and recovery has occurred is for them to withdraw all this money they have printed by selling off the great mound of government bonds they have on their balance sheets. Bank of England governor Andrew Bailey has suggested selling this off is his priority[3] and he is surely right. Doing so brings a double benefit. It gets this debt into private hands and off the taxpayer's account at currently low interest rates — so keeping the taxpayer debt cost down. Also, it gets money in circulation back down to levels that do not threaten inflationary meltdown. Once recovery has got clear traction the Bank should not delay in doing this; leaving it until end 2021 looks too risky. The Bank cannot afford to ignore money.

So yes, Boris Johnson's government can well afford to be bold in providing support for demand and financing solid pro-market reforms of tax and better infrastructure, all of which are growth-promoting and will bring in future revenues. Properly evaluated by long term rules for fiscal solvency, these all make good sense. But they need to be accompanied by a return to monetary orthodoxy in the face of the threatened return of serious inflation. This is not a threat we should take lightly.

How V-shaped in the Recovery?

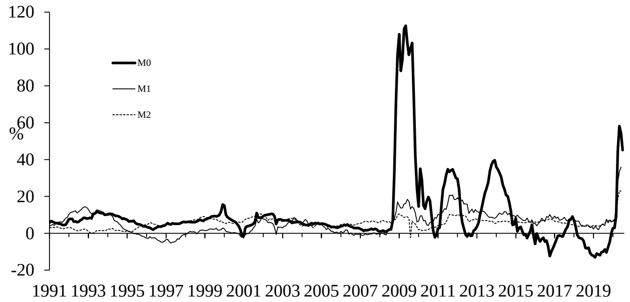
The latest data is reasonably consistent with the V shape. GDP numbers for Q2 are not yet available; but those so far issued up to May suggest the downturn was about as bad as projected on the basis of simple lockdown arithmetic, with about 20% of the economy closed down. However, this was inevitable, due to simple government coercion. Since lockdown has been eased from early July, there has been a decisive recovery on the current indicators. Retail sales had fully recovered to 3.4% above year ago levels, according to BRC figures for June. The July flash PMI is 57.1, with both manufacturing and services well above the 50 mark. Abroad, the eurozone PMI is at 54.8; the G4 PMI is indicating 2% year-on-year growth. These numbers all indicate a strong bounceback from the lifting of lockdown, as should be expected; the lifting of the cause of recession should also lift the recession.

Much is made by gloomier forecasters of a possible second wave of the virus, possibly worse than the first. However, recent UK data from the King's College London ZOE exercise implies that nearly two thirds of the population have had the virus; this should imply widespread immunity and recent studies have found that even among those uninfected by the virus there is a degree of immunity. If so, the measures being taken to prevent new infection spikes should be helped by immunity in much of the population. So far these local measures have indeed succeeded, while infections and deaths from the first general wave are declining steadily. On top of this, there is the likelihood that surviving strains of the virus are less virulent, the worst strains having been eliminated by death and recovery among those they infected; also we should not ignore the likely arrival of a vaccine from the huge research efforts and trials now being conducted. All these arguments point to either no second wave or a much weaker one than the first.

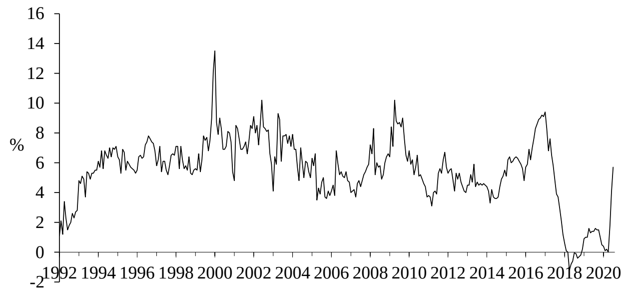
Accordingly, we continue to project a V-shape in our forecasts, with Q2 the nadir of the crisis, and a sharp rebound in Q3 and Q4.

[3] https://uk.reuters.com/article/uk-britain-boe-bailey/bank-of-englands-bailey-says-qe-bond-sales-should-precede-rate-rises-idUKKBN23T0OS

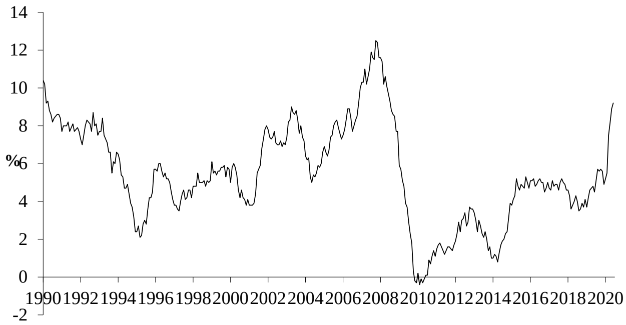
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



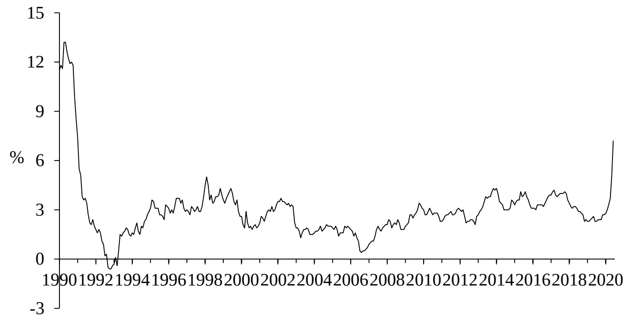
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Coronavirus Crisis Hit Japan's Economy

According to the latest data, Japan GDP contracted by 2.2% y-o-y in the January–March quarter confirming that the country was already mired in recession before it was severely hit by the coronavirus pandemic. The economic expansion lasted for 71 months but fell short of breaking the post-war record. The latest streak of economic growth began in December 2012, when the Prime Minister Shinzo Abe administration was formed. In January 2019, Tsohimitsu Motegi, who was then economy minister, floated the idea that it is "highly likely" that the expansion would break the postwar record of 73 straight months through February 2008.

Growth was hampered by the hike in the consumption tax rate to 10% in October last year. And the consensus among economists is that the recovery phase ended in October 2018 due in part to a decline in Japan's exports caused by the US-China trade war and fallout from natural disasters. And now, the novel coronavirus pandemic has hit. Economic indicators rebounded temporarily from their declines in October 2018. But the overall assessment of the economy based on the business condition diffusion index has been downgraded for 10 straight months since August 2019, indicating that Japan is now in a recession.

Meanwhile the Bank of Japan (BOJ) has recently forecast the nation's economy to contract 4.7% in fiscal 2020 despite recent signs of gradual recovery, a reminder that bouncing back from the coronavirus pandemic will be difficult. "The downshift reflects a slower-than-expected recovery, both in Japan and overseas," said Hideo Kumano, chief economist at Dai-ichi Life Research Institute. "The pace of recovery is expected to be gradual," said Haruhiko Kuroda, the central bank's governor, at a news conference after a two-day policy board meeting. Kuroda also highlighted positive aspects of the economy, saying, "The number of bankruptcies has been limited so far, and unemployment has increased, but not as much as in other countries or after the Lehman crisis." The central bank appeared more upbeat about growth in the next fiscal year and beyond, predicting that the contraction could be followed by an expansion of 3.3% in fiscal 2021 and 1.5% in 2022. Core consumer inflation is projected to fall 0.5% in fiscal year 2020 before rebounding 0.3% in fiscal 2021 and 0.7% in fiscal 2022.

Since the outbreak of the coronavirus pandemic, the BOJ has launched a number of emergency funding programs to keep the economy afloat, which include pledges to interest-free credit to banks to support household and business lending, equity purchases of up to ¥12 trillion a year, and government debt purchases without a limit. It also left the target for short-term interest rates unchanged at minus 0.1% and those for long-term rates at about zero. More than 90% of economists surveyed last month said the BOJ has done enough or more than enough so far to support the economy. Some 63% now see the bank standing pat through 2020, up from 38% in June.

There is some good economic news, however. Economic indicators point to the economy bottoming out in May, the month when Prime Minister Shinzo Abe's government started a phased lifting of a coronavirus state of emergency to allow shops and restaurants to reopen, office workers to commute, and people to travel. Retail sales rebounded 2.1% on the month in May, according to the Ministry of Economy, Trade and Industry. Also, the "economy watcher" survey that gauges business sentiment among people on the front line of the economy conducted in June showed a record increase from the previous month as the number of coronavirus infections slowed down. The survey covers workers in businesses quickly susceptible to economic shifts, such as taxi drivers and retail store and restaurant employees. The latest Japan's Purchasing Managers' Index (PMI) for its manufacturing industry also rose to a seasonally adjusted 45.2 in July from 40.1, though the result was still below the threshold value of 50 connoting growth. Tim Moore director at IHS Markit, which compiles the survey, noted the reading was the highest since February and indicated that Japanese business expectations continue to recover from their low in April. "Manufacturers... cited a boost from easing emergency measures at home, alongside signs of recovery across the automotive supply chain and the restart of economic activity in key export destinations", Tim Moore said at a press conference. The survey showed manufacturers saw demand capacity fall less than before, with total output and new orders contracting at their slowest pace in five months.

Still, economists warn against complacency, pointing to a possible jump in unemployment as government support for businesses runs out. This will make it difficult for companies to keep employees without much work to do on the payroll amid an ongoing shift to teleworking. "Even if growth is rebounding mechanically, remember we are climbing out of a very big hole. The output gap is deeply negative. De facto unemployment and underlying labour market losses are very, very high," said Merrill Lynch's Devalier. "I won't just extrapolate from the headline GDP forecasts about the state of economic activity and utilization".

Moreover, the impact of the coronavirus pandemic is rebounding. Even though Japan has faced a far less deadly coronavirus outbreak than Europe and the US, a recent rise in Tokyo cases continues to weigh on sentiment and inflation has fallen below zero. The country's manufacturers are also heavily reliant on demand from markets where the pandemic rages on. Economists warn that some business operators would not be able to sweat out another consumption downturn and they may well be prompted into cutting employees' salaries or slashing jobs. "We have seen a spike of infection cases mainly in Tokyo. I'm concerned this will impact people's consumption to a certain level," said Shinichiro Kobayashi, economist at Mitsubishi UFJ Research and Consulting Co. The state of emergency imposed from early April to late May ravaged the domestic economy. In those two months, spending by households with at least two people fell by 11.1% and 16.2% year on year, respectively, both record highs.

MARKET DEVELOPMENTS

With recovery strongly underway, the resurgence of equity prices looks well founded.

Table 1: Market Developments

	Market Levels		Prediction for Jul/Aug 2021	
	Jul 2	Aug 5	Previous Letter	Current View
Share Indices				
UK (FT 100)	6240	6027	7638	7377
US (S&P 500)	3130	3349	3227	3453
Germany (DAX 30)	12608	12592	18724	18699
Japan (Tokyo New)	1543	1550	1901	1909
Bond Yields (government)				
UK	0.18	0.12	2.00	2.00
US	0.67	0.53	2.80	2.80
Germany	–0.44	–0.52	–0.20	–0.20
Japan	0.04	0.01	0.00	0.00
UK Index Linked	–2.31	–2.37	1.00	1.00
Exchange Rates				
UK ($ per £)	1.25	1.31	1.32	1.32
UK (trade weighted)	76.59	78.10	78.2	78.2
US (trade weighted)	106.26	104.47	102.5	102.5
Euro per $	0.89	0.84	0.85	0.85
Euro per £	1.11	1.11	1.12	1.12
Japan (Yen per $)	107.63	105.53	112.5	112.5
Short Term Interest Rates				
UK	0.83	0.83	1.70	1.70
US	0.27	0.24	1.80	1.80
Euro	–0.47	–0.48	–0.30	–0.30
Japan	0.00	–0.50	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	1.4	2.0	19.00		26.00
US	1.99	1.1	2.1	–0.10	–0.43	4.66
Germany	3.30	0.8	1.7	46.00	–1.10	50.70
Japan	1.90	–0.3	0.5	23.00	–7.07	18.03
UK indexed[2]	–2.31		2.0	8.00		7.63
Hong Kong[3]	2.60	4.0	2.1	–31.00	–0.43	–22.73
Malaysia	3.30	2.0	2.1	15.00	–0.43	21.97
Singapore	3.50	1.0	2.1	–7.00	–0.43	–0.83
India	1.40	5.0	2.1	–7.00	–0.43	1.07
Korea	1.10	0.8	2.1	–42.00	–0.43	–38.43
Indonesia	2.20	3.0	2.1	2.00	–0.43	8.87
Taiwan	2.80	1.0	2.1	–2.00	–0.43	–3.47
Thailand	3.20	1.5	2.1	4.00	–0.43	10.37

Bonds: Contribution to £ yield of: –

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	0.12	–18.76		–18.64
US	0.53	–22.69	–0.43	–22.59
Germany	–0.52	–3.24	–1.10	–4.86
Japan	0.01	0.12	–7.07	–6.94

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.83		0.83
US	0.24	–0.43	–0.19
Euro	–0.48	–1.10	–1.58
Japan	–0.50	–7.07	–7.57

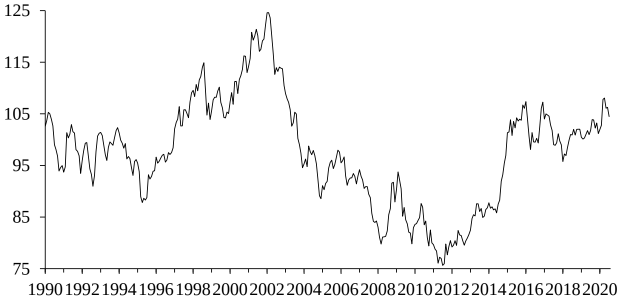
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	July Letter	Current View	July Letter	Current View	July 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)	-	-	-	-	-	-

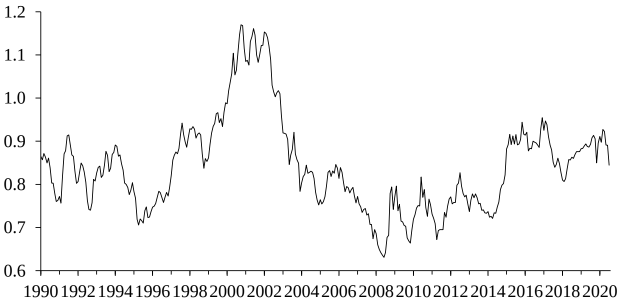
INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS

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

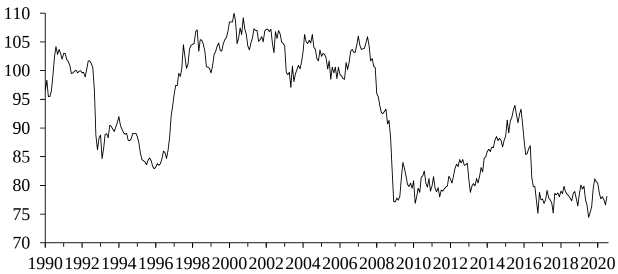


UK: Dollars Per Pound Sterling

Euro per US dollar



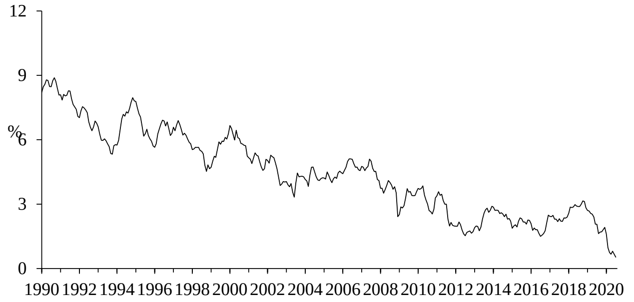
UK: Trade-Weighted Index
(Bank of England 1990 = 100)



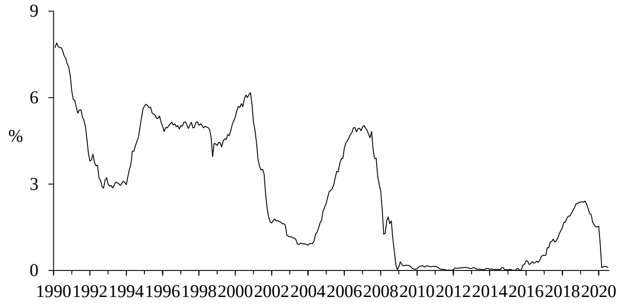
Japan : Yen Per U.S. Dollar

GOVERNMENT BOND MARKETS

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

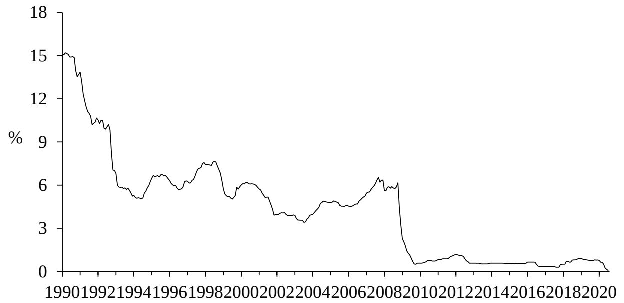


U.S. : 3-Month Treasury Bill

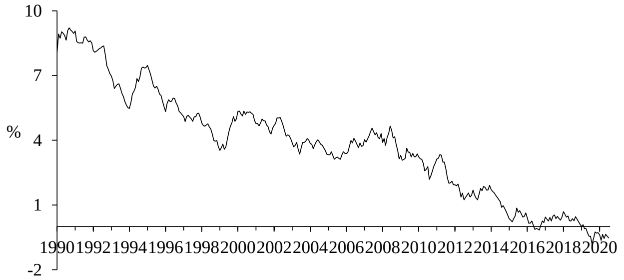


U.K.: Yield on Long-Term Government Bonds

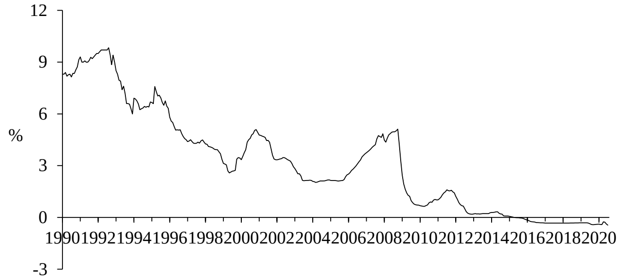
U.K. : 3-Month Certificate LIBOR Rate



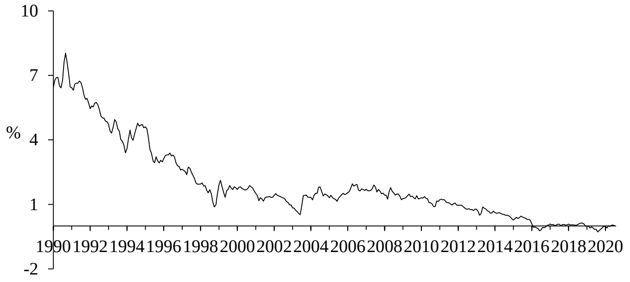
Germany: Yield on Public Authority Bonds



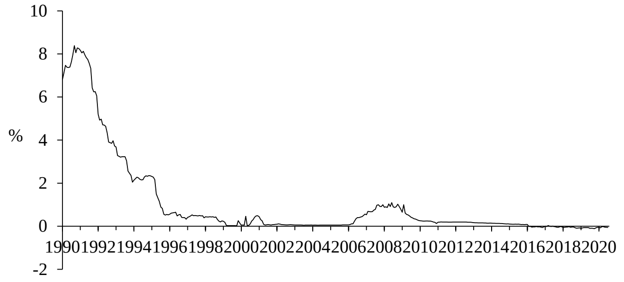
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

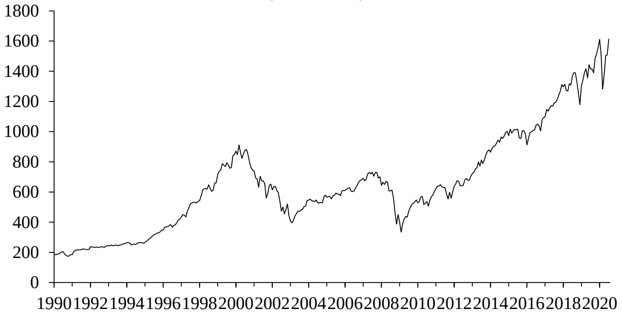


Japan : 3-Month Money Market Rate

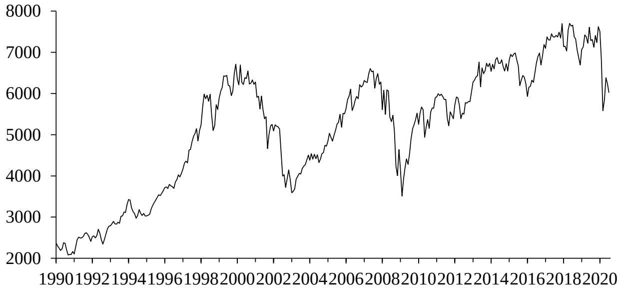


MAJOR EQUITY MARKETS

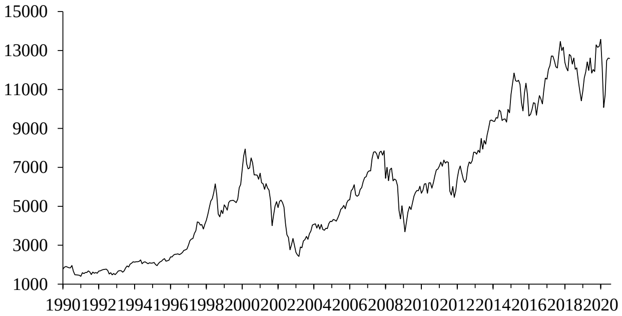
U.S. : S & P 400 Industrial
(1985=100)



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



Germany : DAX 30



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

EMERGING MARKETS

Anupam Rastogi

India

In the past one month, India has jumped many notches in terms of total number of Covid-19 cases (~50,000 cases) and number of deaths per day in the country. However, as percentage of population they still remain very low. India may surprise the world by becoming a country with largest number of Covid 19 cases in the world. As the number of Covid-19 cases in India continues to rise, provincial governments are going for localised lockdowns, even as restrictions continue to ease in areas with declining caseloads. The rapid spread this time in the hinterland may impact the agriculture sector marginally. On the other hand, the country is achieving herd immunity faster than what was estimated earlier.

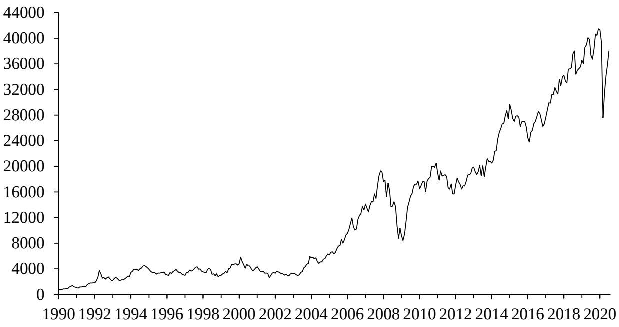
Growth projections for the current year by various global and domestic agencies indicate a sharp contraction, ranging from -3.2% to -9.5%. We maintain our forecast of 3% contraction in the fiscal year 2020–21 as high frequency data — e-toll collections, e-way bills, digital transactions and GST collections are back to the Rs 900 billion levels per month compared to Rs 1 trillion mark. However, a strong probability of in and out of lockdowns of different regions does remain. IMF estimates a 4.5% contraction for India in the current financial year. India's economic growth stood at 4.2% in 2019–20.

The agricultural sector has thus far emerged as the silver lining. An unprecedented contraction in the first quarter of FY21 followed by expectations of a slow and gradual recovery ahead is already reflected in several high frequency indicators such as industrial production, merchandise trade, PMI, amongst others. The winter crop in the crop year 2020–21 has been sown and it is 18.5% higher as compared to the same period last year.

According to the India Meteorological Department, seasonal cumulative rainfall during current the year's southwest monsoon season is 6% higher than the long-term average.

But the July Manufacturing Purchasing Managers' Index fell for a fourth straight month. Amid the heightened inflation fear, the RBI Monetary Policy Committee has unanimously voted on August 5 to maintain the status quo on policy rates. The RBI Governor Shaktikanta Das announced that the repo rate will remain unchanged after considering the trade-offs between growth and inflation. After 250 basis points cut in the last 1.5 years, including 115 basis points cut in the repo rate since the coronavirus pandemic began, the rates are believed to be at the bottom of the cycle. The policy repo rate is 4% and reverse repo rate is 3.35%.

India: BSE Sensitive



India's retail inflation, measured by the Consumer Price Index (CPI) grew 6.1% in the month of June. The government had not released the headline retail inflation data in April and May. However, in April, it had revised the CPI data for the month of March to 5.84% from 5.91%. This suggests that consumer inflation is growing beyond the Reserve Bank of India's (RBI) upper limit of 6%. The RBI is mandated to keep inflation within the range of 4% with a margin of 2% on either side.

The retail inflation growth was mainly due to a rise in agricultural products. The government bond yield curve has steepened at the longer end due to an increased perception of long-term inflation and concern over a likely increase in government market borrowings.

India's merchandise trade balance turned to a surplus of $0.8 billion in June, for the first time since 2002, as imports continued to decline at a faster pace and the contraction in exports ebbed. Going by the trade surplus in June, India is headed for a second straight quarter of current account surplus for the first quarter of fiscal year 2021. The rise in forex cover and the sharp drop in imports have driven India's import cover to record levels, with forex reserves enough to cover 18 months of imports. This is the highest level of import cover India has had since 2004.

As dollars kept coming in through capital flow, and current account flows, the country's foreign currency reserves grew by $48 billion. The reserves touched a new high of $523 billion in the week ending on July 24, helped by currency accretion and increase in the value of gold reserves.

Rising foreign exchange reserves along with a current account surplus, has aided the Indian rupee to remain broadly stable since mid-March 2020. RBI continues to intervene in the market aggressively to avoid a sharp INR appreciation. The Indian rupee is trading at ~75 to a US dollar.

A portion of ample global liquidity is finding its way into emerging market (EM) equities, resulting in India and the broader EM pack outperforming the developed markets in June as well as July thus far. The benchmark stock index BSE Sensex is ~46% higher than its low of 25,982 clocked on March 23rd.

	18–19	19–20	20–21	21–22	22–23
GDP (%p.a.)	6.8	4.2	-3.0	7.5	6.0
WPI (%p.a.)	3.9	3.6	5.0	5.0	5.0
Current A/c(US$ bill.)	-70.0	-22.0	0.6	2.0	-10.0
Rs./$(nom.)	79.5	73.0	76.0	77.0	78.0

China

President Xi Jinping has called for a greater push on reforms to stimulate domestic demand and help the economy to ride out mounting risks, describing conditions as "complicated and grave." China will also seek to stabilize trade and the monetary stance will remain unchanged, but with more focus and a push to reduce borrowing costs. The Communist Party's Central Committee which is scheduled to meet in October will put a stamp on this and outline a new five-year plan.

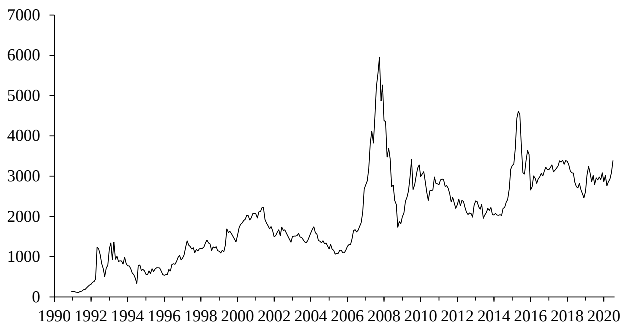
China's economy grew 3.2% in the second quarter, following a slump of 6.8% in the first, according to its National Bureau of Statistics. The turnaround is achieved by a bounceback in manufacturing output and a public spending boost. The IMF has also projected a positive GDP growth rate for China in CY20. According to the IMF, China's COVID-19 related support policies, including spending, loans and guarantees, amounted to just 2.5% of GDP, as compared to 11% for the US, over 20% for Japan, and 34% for Germany.

Even though the size of the package was relatively small, what mattered is that in China — where one-half of GDP is driven by consumption — Beijing seems to have rightly focussed on maintaining consumption by attempting to put money in the hands of consumers. China did this through pre-paid vouchers for specific products and other related measures. We don't have the breakdown of GDP growth by components, so our guess is that some industrial production output that had not been used by infrastructure projects has been placed into the inventories category. China's inventories surged during the first half: industrial inventories were 4.3% higher in the first five months of 2020 than a year earlier. It may not be possible for China to do this window dressing in the second half. China's factory sentiment, gauged by the official manufacturing PMI rose to 51.1 from 50.9 in June. The services PMI edged down to 54.2 from 54.4.

Consumer price index, the main gauge of inflation, grew 2.5 percent year on year last month, expanding from the 2.4% growth in May. This amounts to consumer inflation of 3.8% year on year on average. China's factory gate prices fell for a fifth straight month in June as the coronavirus pandemic weighed heavily on industrial demand.

China's manufacturing activity edged up in July and export orders strengthened despite weak US and European demand. But, exports are likely to dip again later in the year once demand for masks, surgical gloves and other medical supplies eases.

China: SSE Composite Index



With nearly seven months gone, the ambitious $36.5 billion target for Chinese imports of U.S. farm goods this year seems to be a big stretch. But, the trade war with China is meeting at least one of his goals — the U.S. trade deficit with China in the past 12 months has dropped to its lowest since 2012.

Unfortunately, that narrowing has come from the U.S. buying less from China, rather than China buying more from the U.S. Slack Chinese imports are a symptom of the underlying reason China's trade surpluses, not just with the U.S. but the world, persist: China consumes too little and saves too much. China may not violate the deal if it misses the target due to the impact of coronavirus. The deal grants flexibility in the event of "a natural disaster or other unforeseeable event."

The U.S. and China have agreed to high-level talks on August 15 to assess Beijing's compliance with the "phase one" bilateral trade agreement signed early this year.

There is little doubt that the U.S. and China are having a New Cold War. China thinks that power is the arbiter of world affairs, and that technology is power in today's world order. The thesis is that the US won the Cold War with the Soviet Union as it encouraged a military build-up that catalysed an economic revolution. Military research and development produced countless inventions of the Digital Age, from fast and cheap microchips to the internet. The Soviet Union had to retreat in the face of America's superior arms and entrepreneurial growth.

Hence, China is pushing for leadership in technology. China has become the world leader in artificial intelligence, not because its computer scientists are smarter than Microsoft's, but because China has a huge advantage in data — the fuel that powers the AI engine.

President Xi's domestic concerns also pose a risk for the world. A crucial pillar of his support comes from the nationalism stoked by his more assertive foreign policy to stand "tall and firm." Besides the US, this has sparked fights with the U.K., Australia, India and Kazakhstan. In response to the closure of the Houston consulate, the US was asked to close its consulate in Chengdu.

	18	19	20	21	22
GDP (%p.a.)	6.6	6.1	2.0	5.5	5.5
Inflation (%p.a.)	2.2	2.3	2.0	2.0	1.8
Trade Balance(US$ bill.)	50.0	40.0	20.0	40.0	40.0
Rmb/$(nom.)	6.8	7.1	7.3	7.2	7.2

South Korea

Though South Korea managed to escape from ravages of the Covid-19 using mass testing and contact tracing, its economy is still not out of the woods, given its dependence on exports. In the second quarter the South Korean economy declined 3.3% from the previous quarter and also 2.9% from a year ago, as the pandemic took a heavy toll on global and domestic demand. South Korean economy is in a technical recession as exports plummeted in the second quarter. Some of its largest industries from automobiles to refineries have seen erosion of profits as well.

South Korea's economy is set to recover in the second half of this year alongside a slow recovery in global demand. Meaningful signs of recovery have already surfaced in the domestic market, including swift rebounds in domestic tourism.

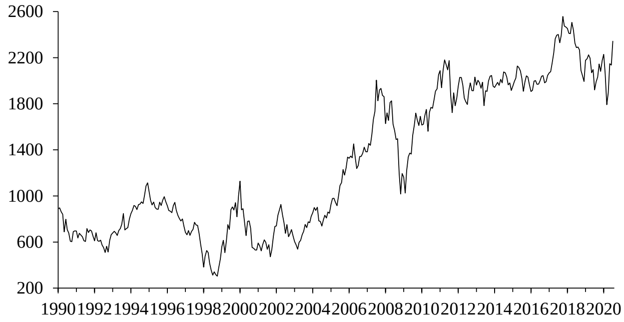
Further, South Korea's consumer sentiment strengthened for the third month in July though at a more subdued pace, as life slowly normalized despite the ongoing virus risk. The composite consumer sentiment index for July was 84.2, up 2.4 points from the previous month. Private consumption jumped 1.4% quarter-on-quarter from the previous quarter's 6.5% drop, fuelled by the government's direct cash handouts to households and other supporting measures like auto-tax reductions. But the spending, which was mostly limited to durable goods, fell short of offsetting weak service sector consumption.

South Korea's inflation slowed last month, amid fears of the coronavirus softening economic activities. The benchmark consumer-price index gained 1.1% in February from a year earlier after the prior month's 1.5% rise. The stronger-than-expected inflation was led by higher agricultural-product prices and utilities bills. The Bank of Korea has maintained its annual inflation forecast at 1% for 2020 and 1.3% for 2021. Inflation averaged a record low of 0.4% in 2019.

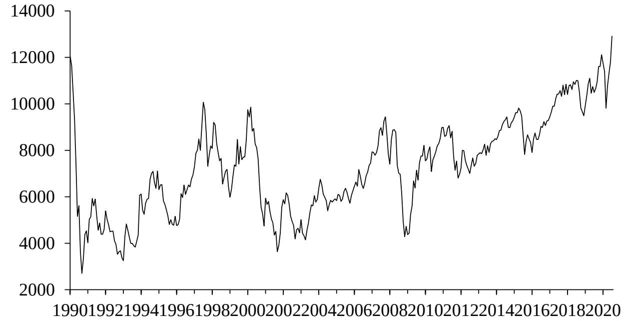
The impact of the fall in exports on the economy was bigger than the global financial crisis of 2008–09. Exports that contribute largely to GDP plunged 16.6% on quarter and 13.6% on year. The yawning double-digit negative figure was the largest since the 24% plunge in the fourth quarter of 1963 according to the Bank Of Korea.

Overseas sales fell 7.0% in July from a year earlier, the fifth month of decline but much less than June's 10.9% fall. South Korea is the first major exporting economy to release monthly trade data, providing an early guide to the health of global trade.

Korea: Composite Index



Taiwan: Weighted TAIEX Price Index



Imports such as crude oil also shrank by 7.4%, with facility investments and construction investments also seeing a 2.9% and 1.3% decline, respectively. This is on account of decreased investments in transportation equipment and constructions.

South Korea and the United States have agreed to extend a $60 billion bilateral currency swap agreement by six months in an effort to help ease lingering market uncertainties amid the new coronavirus outbreak, according to the Bank of Korea (BOK). The bilateral currency swap facility was to ease financial market jitters caused by the COVID-19 pandemic. The swap agreement, initially set to end on Sept. 30, will be extended until March 31, 2021.

The South Korean stock market has gained 60% from its low of March 19th. The Korean won rose against the US dollar as USD is depreciating against all its trading partners.

	18	19	20	21	22
GDP (%p.a.)	2.7	1.8	-1.0	2.0	2.2
Inflation (%p.a.)	1.5	0.4	-0.5	0.2	1.2
Current A/c(US$ bill.)	86.0	60.0	38.0	40.0	40.0
Won/$(nom.)	1130	1200	1230	1260	1260

Taiwan

Taiwan's GDP recorded an unexpected fall of 0.73% in Q2 from a year earlier as the global economy slows, in line with regional peers that are contracting due to the global slowdown stemming from the COVID-19 pandemic.

Taiwan's export orders grew at their fastest pace in nearly two years in June, boosted by strong demand for telecommuting products such as laptops, as the coronavirus pandemic forced millions of people around the world to work from home.

The island's export orders, a bellwether of global technology demand, jumped 6.5% in June from a year earlier to $41 billion. In the first half of this year, Taiwan's exports grew 0.5% annually to US$158 billion, leaving the country with a trade surplus of US$21.4 billion — an increase of US$1.3 billion from a year ago. A better than expected exports data, couple with overall weakening of the US dollar, led to appreciation of NT$ by 2.1% against the U.S. dollar this year, with the central bank intervening in the market to try and prevent it rising further.

A strong Taiwan dollar hurts the competitiveness of the island's small and medium sized companies, which are the pillars of the export-reliant economy.

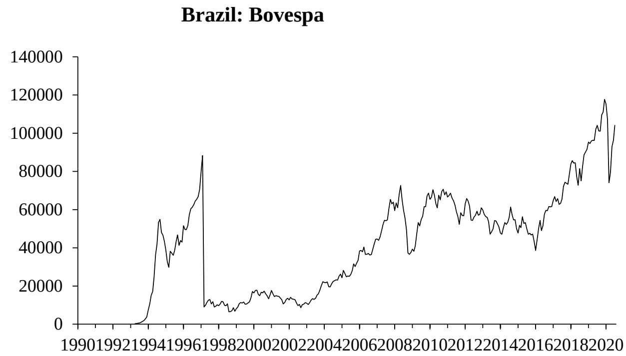
Taiwan's benchmark stock index also hit a record high in the last week of July, surpassing a mark that had stood for three decades. It was another sign of how resilient the local economy has been in challenging times. Taiwan has convinced Taiwanese businesses to move manufacturing and investment from mainland China back to the island.

Chinese President Xi Jinping has set his sights on Taiwan. He continues on the path of Mao Zedong and Deng Xiaoping by bringing more territory under Beijing's control. Xi has consolidated control in Tibet and Xinjiang since taking power in 2012 and bolstered his hold on disputed reefs in the South China Sea. Now fears are growing that Xi wants to conquer Taiwan, a prize that's eluded the Communist Party for decades. In response, the US is strengthening its ties with Taiwan. Health and Human Services Secretary, Alex Azar, will lead a delegation to Taiwan to discuss the global response to the Covid-19 pandemic, as well as supplies of medical equipment and technology. He would underscore "our shared belief that free and democratic societies are the best model for protecting and promoting health". This action was rebuked by China as it is firmly opposed to official interactions between the U.S. and Taiwan.

	18	**19**	**20**	**21**	**22**
GDP (%p.a.)	2.6	2.0	0.6	2.4	2.2
Inflation (%p.a.)	1.2	1.0	-1.0	1.0	1.0
Current A/c(US$ bill.)	68.0	70.0	71.0	70.0	60.0
NT$/$(nom.)	29.8	31.0	29.5	30.5	31.0

Brazil

Positive surprises on the exports front and tamed inflation suggest that Brazil's 2020 gross domestic product may not worsen further. However, a more decisive pickup still looks distant. We maintain our forecast of a 5.5% contraction in GDP and expect 2% growth in GDP in 2021.



Inflation seems to be tamed for the foreseeable future as the coronavirus battered consumption, sank confidence and lifted unemployment. In response, policy makers have cut their interest rate eight straight times to a record low, while the government has also extended emergency stipends to informal workers.

In the 12 months to June, Brazil recorded 2.13% inflation. Brazilian inflation as measured by the IPCA consumer price index rose 0.26% in June compared to deflation of 0.38% in May caused by falling fuel and air travel costs due to the coronavirus crisis. The push in inflation in June was driven by recovering gasoline prices. Brazil's producer price index (PPI) rose 0.6% in June as well, half the 1.2% rate of increase registered in the previous month. In twelve months ending June, inflation accelerated 2.13%, well below this year's 4% target. Consumer prices in July are likely to continue to follow the path of low inflation rate of recent months. This provided elbow room to authorities to cut borrowing costs.

Brazil central bank lowered the benchmark Selic rate to an all-time low of 2% in an easing cycle that has shaved 450 basis points off borrowing costs. It is a final 25 basis points move to cushion an economic collapse amid the worst COVID-19. This reduction was the ninth of an easing cycle that started a year ago. The policymakers are likely to wait until the third quarter of 2021 before starting to hike rates, after the economy shows stability. Central bank president Roberto Campos Neto believes that the economy has already started a "V-shaped" recovery on the back of strong fiscal and monetary measures adopted to deal with the emergency.

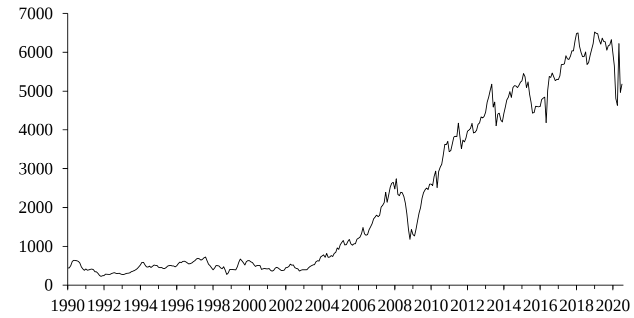
The real leaped to one month high as the central bank launched a program aimed at providing up to 120 billion reais ($23 billion) in loans to small and medium-sized enterprises, which have struggled to access credit during the COVID-19 pandemic. Like other commodity-linked currencies, the Chilean and Mexican pesos, the real gained against the U.S. dollar in July but gave up two thirds of the appreciation in the last week of July. It is hovering around 5.3 to a dollar.

	18	**19**	**20**	**21**	**22**
GDP (%p.a.)	1.1	0.8	-5.5	0.0	2.5
Inflation (%p.a.)	3.8	4.3	1.0	1.0	2.0
Current A/c(US$ bill.)	-14.6	-36.0	-40.0	-40.0	-36.0
Real/$(nom.)	3.8	4.2	5.5	5.7	5.8

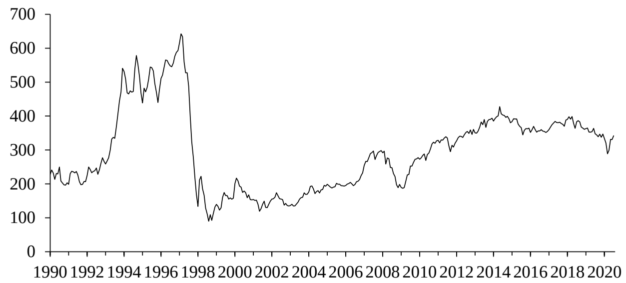
Other Emerging Markets

Hong Kong: FT-Actuaries

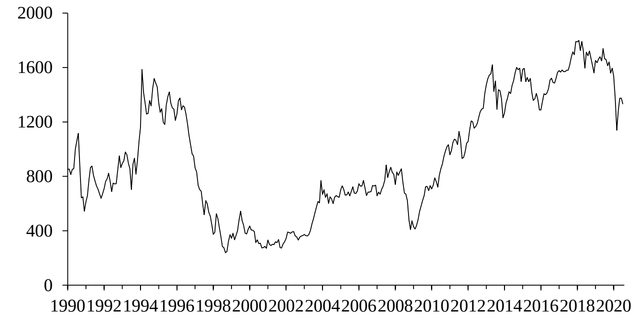
Indonesia: Jakarta Composite



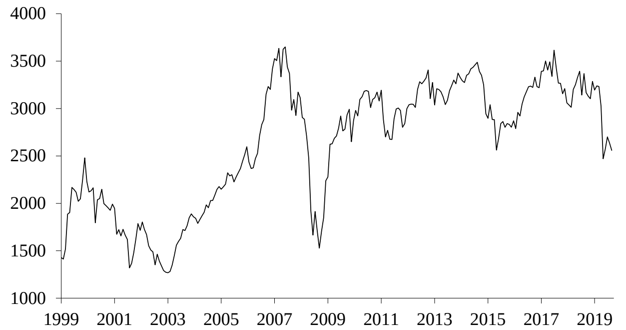
Malaysia: FT-Actuaries (US$ Index)



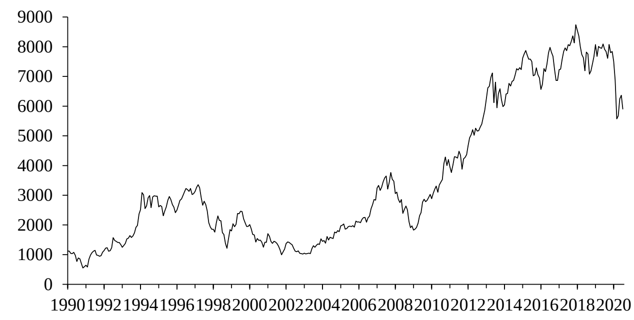
Thailand: Composite Index



Singapore: Straits Times Index

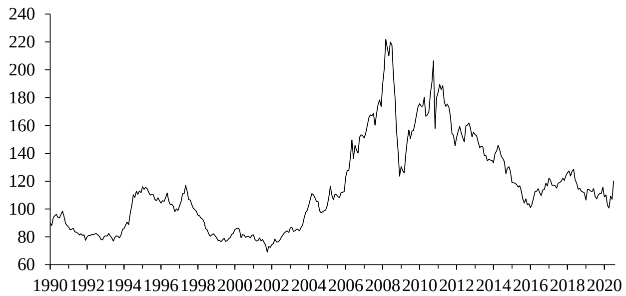


Philippines: Manila Composite

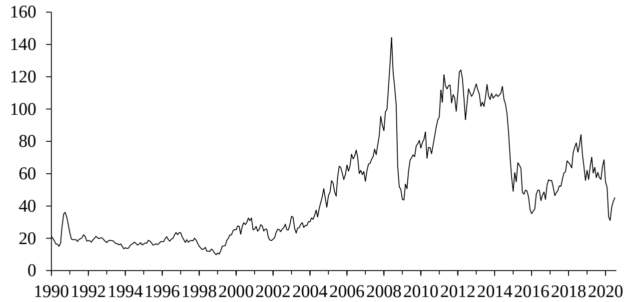


COMMODITY MARKETS

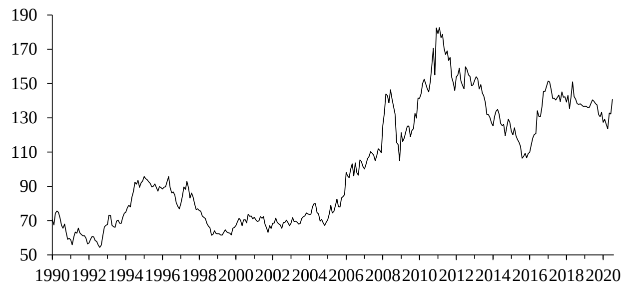
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



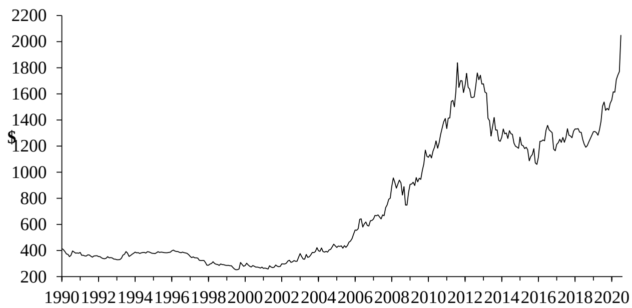
Oil Price: North Sea Brent (in Dollars)



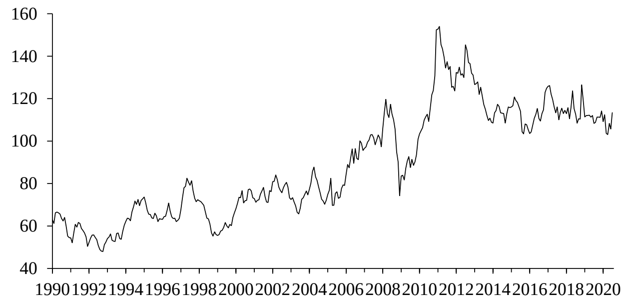
Commodity Price Index (Sterling)
(Economist, 2015 = 100)



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]
2018	2.4	1.0	0.7	78.6	76.9	-1.4	3.3	-1.0
2019	1.8	0.6	0.8	78.1	75.9	-0.9	2.5	-1.1
2020	1.7	0.4	0.4	78.9	77.0	-1.8	2.2	-1.2
2021	2.0	2.6	1.9	77.9	76.3	-1.0	2.8	1.0
2022	2.0	5.0	4.5	77.7	76.6	2.2	2.8	3.0
2023	2.0	5.0	5.0	77.6	76.8	2.9	2.7	3.0
2019:1	1.8	0.9	0.9	78.8	77.4	-0.5	2.4	-0.9
2019:2	2.0	0.7	0.8	78.4	76.0	-0.5	3.0	-1.1
2019:3	1.8	0.4	0.8	75.8	72.7	-1.4	3.0	-1.4
2019:4	1.4	0.5	0.8	79.5	77.7	-1.3	1.7	-1.2
2020:1	1.7	0.4	0.7	79.2	77.5	-1.4	2.2	-1.4
2020:2	1.5	0.3	0.4	79.0	76.9	-1.8	1.8	-1.6
2020:3	1.7	0.3	0.3	78.7	76.8	-1.8	2.2	-1.7
2020:4	1.8	0.5	0.3	78.6	76.8	-2.4	2.4	-1.5
2021:1	2.0	1.8	1.5	77.6	76.0	-1.1	2.7	-0.2
2021:2	2.0	2.0	1.7	78.2	76.5	-1.1	2.8	0.0
2021:3	2.0	2.5	2.0	78.0	76.5	-1.2	2.8	0.5
2021:4	2.1	4.0	2.5	77.7	76.3	-0.5	3.0	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)
2018	266.6	3.0	4.2	1.1	142.8
2019	275.0	3.5	4.1	1.1	145.3
2020	283.3	3.0	7.2	2.3	147.2
2021	292.3	3.2	5.6	1.7	148.9
2022	301.4	3.1	3.5	1.0	150.5
2023	311.3	3.3	2.8	0.7	152.4
2019:1	273.4	3.4	3.9	1.0	144.9
2019:2	273.5	4.0	4.0	1.1	144.4
2019:3	275.5	3.7	4.2	1.2	146.0
2019:4	277.6	2.7	4.3	1.2	145.9
2020:1	280.8	2.7	4.4	1.2	146.4
2020:2	282.0	3.1	9.4	3.1	146.7
2020:3	283.8	3.0	7.8	2.5	147.8
2020:4	286.7	3.3	7.3	2.4	148.0
2021:1	289.4	3.1	6.6	2.1	147.9
2021:2	290.8	3.1	5.8	1.8	148.3
2021:3	292.9	3.2	5.3	1.6	149.6
2021:4	296.1	3.3	4.7	1.4	149.8

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as a percentage of employed and unemployed, self employed and HM Forces
4 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
2018	165.5	792330.9	445721.1	307723.0	201029.6	-41308.9	120833.9
2019	167.8	803514.4	450773.6	292071.6	205398.3	-40522.1	104207.0
2020	156.8	750778.9	422139.3	240438.5	206633.2	-38602.0	79830.1
2021	166.0	794785.5	447070.2	256907.5	207875.4	-32873.3	84194.3
2022	170.7	817684.4	453552.8	270703.1	209119.3	-29141.1	86549.7
2023	176.0	842924.6	460358.0	287932.7	210372.2	-26815.4	88922.9
2018/17	1.3		1.0	2.3	0.2		-4.6
2019/18	1.4		1.1	-4.7	2.2		-12.4
2020/19	-6.6		-6.3	-15.3	0.6		-4.1
2021/20	6.2		6.1	8.3	0.6		6.1
2022/21	2.9		1.4	5.4	0.6		2.7
2023/22	3.1		1.5	6.4	0.6		3.0
2019:1	167.5	200481.1	112289.5	83278.3	52683.0	-18452.8	29316.9
2019:2	167.1	200009.6	112720.4	81082.1	50775.9	-13738.5	30830.3
2019:3	168.3	201443.7	113162.0	72473.6	51076.1	-12057.3	23210.7
2019:4	168.4	201579.9	112601.6	55237.5	50863.3	3726.5	20849.0
2020:1	164.9	197481.6	111026.5	70478.2	52999.1	-16221.6	20800.6
2020:2	145.3	173993.2	99094.4	48913.3	51084.8	-6531.1	18568.2
2020:3	151.8	181697.2	101536.5	58727.3	51380.8	-10262.3	19685.1
2020:4	165.1	197607.0	110482.0	62319.7	51168.6	-5587.1	20776.2
2021:1	165.8	198469.1	112273.3	69471.6	53317.1	-15598.6	20994.3
2021:2	165.9	198582.2	111099.5	62447.0	51391.3	-5280.0	21075.6
2021:3	166.0	198749.7	111236.0	64731.7	51690.8	-7856.1	21052.7
2021:4	166.2	198984.5	112461.4	60257.2	51476.2	-4138.6	21071.7

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	Debt Interest (£bn)	Current Account (£ bn)
2018	1.9	2092.5	39.3	22.4	-82.9
2019	2.0	2127.5	43.2	24.0	-83.8
2020	12.4	2030.1	239.1	25.0	-64.3
2021	4.7	2203.2	101.9	27.4	-54.1
2022	2.2	2316.3	51.0	31.0	-45.5
2023	0.4	2436.6	7.6	33.8	-40.3
2019:1	-2.8	520.1	-14.7	6.1	-34.5
2019:2	4.5	532.3	23.8	6.0	-27.3
2019:3	1.8	531.3	9.4	6.0	-15.6
2019:4	4.0	536.5	21.3	6.0	-6.3
2020:1	-2.1	527.5	-11.2	6.0	-29.6
2020:2	28.6	467.1	133.6	6.1	-12.2
2020:3	14.3	487.2	69.9	6.2	-11.1
2020:4	8.0	534.4	42.6	6.3	-11.4
2021:1	-1.3	541.4	-7.0	6.3	-29.2
2021:2	8.0	541.9	43.2	6.5	-10.3
2021:3	3.6	544.7	19.6	6.7	-6.0
2021:4	8.3	549.2	45.4	7.0	-8.5

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2017	2018	2019	2020	2021	2022
U.S.A.	2.2	2.9	2.3	–6.5	6.0	2.5
U.K.	1.8	1.4	1.4	–6.4	6.0	2.9
Japan	2.2	0.3	1.0	–6.0	2.3	1.0
Germany	2.5	1.5	0.5	–6.5	5.8	2.0
France	2.4	1.7	1.3	–8.1	2.1	2.0
Italy	1.7	0.8	0.2	–9.9	6.4	1.9

Growth Of Consumer Prices

	2017	2018	2019	2020	2021	2022
U.S.A.	2.1	2.4	1.8	2.0	2.0	2.0
U.K.	2.6	2.4	1.8	1.7	2.0	2.0
Japan	0.5	1.0	0.6	0.7	0.5	0.5
Germany	1.5	1.8	1.4	1.4	1.5	1.7
France	1.0	1.9	1.2	1.2	1.3	1.5
Italy	1.2	1.2	0.7	0.9	1.0	1.3

Real Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	–1.5	0.1	0.1	–0.3	0.0	0.0
U.K.	–1.7	–1.4	–0.9	–1.8	–1.0	2.2
Japan	–1.0	–0.7	–0.8	–0.5	–0.4	–0.4
Germany	–2.1	–1.7	–1.8	–1.9	–2.0	–2.0
France	–2.2	–1.5	–1.7	–1.7	–1.8	–1.9
Italy	–1.5	–1.0	–1.4	–1.4	–1.6	–1.7

Nominal Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	0.9	1.9	2.1	1.7	2.0	2.0
U.K.	0.4	0.7	0.8	0.4	1.9	4.5
Japan	0.0	–0.1	–0.1	0.0	0.1	0.1
Germany	–0.3	–0.3	–0.4	–0.4	–0.3	–0.1
France	–0.3	–0.3	–0.5	–0.4	–0.3	–0.1
Italy	–0.3	–0.3	–0.5	–0.4	–0.3	–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.	–1.5	–1.0	–1.1	–1.2	1.0	3.0
Japan	–0.6	–0.5	–0.6	–0.6	–0.5	–0.4
Germany	–1.3	–1.1	–1.9	–2.1	–1.9	–1.7
France	–0.6	–0.5	–1.2	–1.5	–1.4	–1.3
Italy	1.1	1.6	0.9	0.1	0.1	0.2

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	0.4	2.6	5.0
Japan	0.1	0.1	–0.1	–0.1	0.0	0.1
Germany	0.3	0.4	–0.3	–0.4	–0.2	0.0
France	0.8	0.8	0.2	0.0	0.1	0.2
Italy	2.1	2.6	2.1	1.3	1.4	1.5

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	75.9	77.0	76.3	76.6
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	106.53	105.84	104.43
U.K.	1.29	1.34	1.28	1.26	1.28	1.30
Japan	112.10	110.40	109.02	108.90	109.50	109.30
Eurozone	0.89	0.85	0.89	0.92	0.91	0.90

[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