LIVERPOOL INVESTMENT LETTER

January 2019

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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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UNCERTAINTY: NOT AN IMPORTANT ISSUE

The economy carries on regardless of Brexit uncertainty. One of the endless cries during this Brexit process has been about uncertainty affecting either aggregate demand or supply or both. Yet there is barely any evidence of either.

On the demand side, as we have pointed out repeatedly, there is none, as the economy is at full employment, with real wages now rising with some strength. It is hard to argue that without Brexit we would have had more than full employment. Possibly the economy could have overheated more; but the claim is that Brexit has caused weakness, and weak it is plainly not.

If we turn to aggregate supply, again employment has not been reduced, as it is at an all-time record.

As for capital, it is abundant, as witnessed by the usual indices of excess capacity from CBI surveys. Thus, in the July CBI Survey 45% of firms were working below capacity. Investment has grown in the past year, in spite of this abundance. This could reflect the labour market tightness, with capital substituting for labour.

What about econometric evidence of uncertainty affecting investment or any other sort of spending? It is sparse to non-existent. All the models we have make spending respond to expected income and borrowing costs, not uncertainty measures of any sort. This rather explains why we see no effects today, even though there is Brexit uncertainty.

Some commentators point to the financial Crisis as evidence of uncertainty effects. But it is no such thing. The crisis crudely cut off credit supplies because of bank illiquidity; this in turn reduced demand and trade by sharply raising the cost of credit.

As far as theory goes, we know that households and firms will insure idiosyncratic risks. They can also insure general, e.g. political risks, by buying certain sorts of assets. This ability to insure could explain why uncertainty is not a factor in spending decisions.

Table 1: Summary of Forecast

	2016	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
GDP Growth[1]	1.9	1.8	1.5	1.9	2.0	2.1	2.3
Inflation CPI	1.1	2.6	2.5	2.2	2.0	2.0	2.0
Wage Growth	2.4	2.9	2.7	2.4	1.7	2.4	2.3
Unemployment (Mill.)[2]	0.8	0.8	0.8	0.8	0.7	0.7	0.6
Exchange Rate[3]	82.1	77.4	77.4	76.2	75.4	75.5	75.2
3 Month Interest Rate	0.5	0.4	0.6	1.1	2.4	3.1	3.1
5 Year Interest Rate	0.7	0.6	1.5	2.5	3.4	2.9	2.6
Current Balance (£bn)	-90.9	-66.3	-60.3	-49.5	-39.7	-31.0	-17.9
PSBR (£bn)	45.1	39.4	30.7	21.8	5.6	-6.7	-15.1

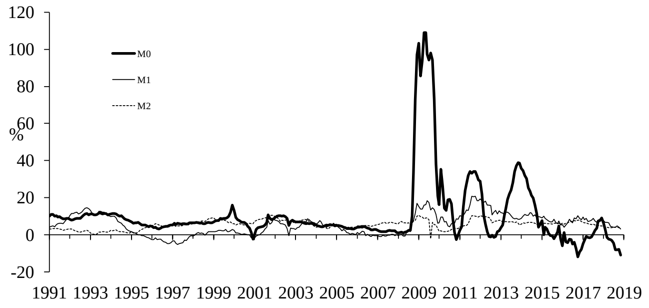
[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index (2005 = 100)

None of this is meant as a celebration of policy uncertainty. Rather we should get its effects into perspective. Often economies have to endure some uncertainty in order to allow necessary policy change bringing long-run gains. This is the case with Brexit. The focus of discussion should be on its effects on the long-run supply side of the economy, not on short run issues or transitional uncertainty.

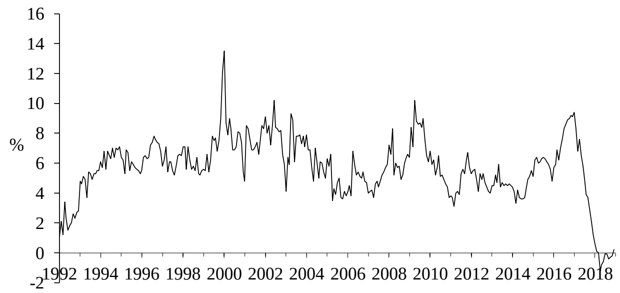
As for that long-run effect, we have argued throughout the Brexit debate that it will be highly positive due to:

- Opening up free trade around the world, lowering our prices and boosting competition. This can be done without creating trade barriers against the EU, simply by moving to a simple EU Free Trade Agreement.
- Improving regulation by bringing it under our own pragmatic control — whether in labour markets, or in product innovation, or in the City and finance.
- Regaining control of immigration so that we can focus on obtaining necessary skills from around the world, and avoiding the problems caused by free access to our benefit system from EU unskilled workers.
- Indeed, Brexit can be seen as a way of ensuring the strong continuation of the Thatcher supply-side reform programme which our EU membership derailed in a number of ways.

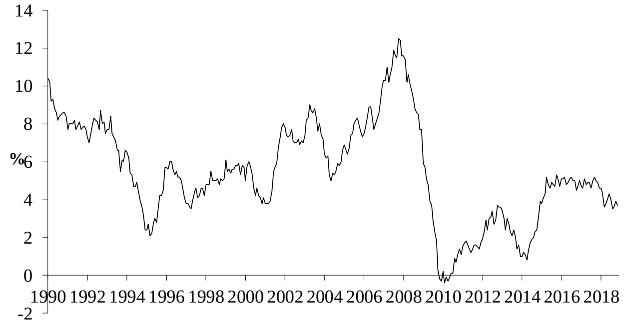
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



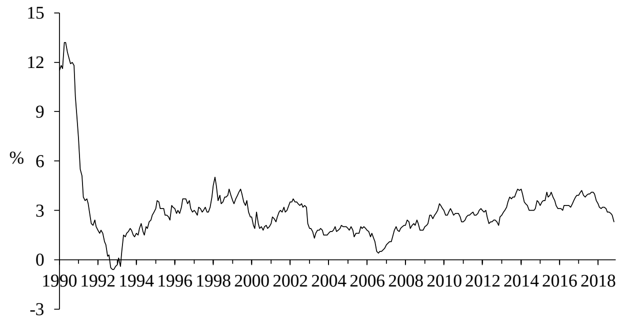
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Japan Economy Shrank Again

Suffering from a series of natural disasters over the summer, the Japanese economy contracted in the third quarter, with real GDP growth falling by 0.3% quarter on quarter (q-o-q). This was widely expected due to a deterioration in monthly activity indicators and to the scale of the natural disasters, including massive flooding in western regions due to torrential rains, a typhoon that inundated a major international airport, and an earthquake in the north that disrupted supply lines.

Consumption, which accounts for over half of Japanese GDP, fell by 0.1% q-o-q, taking 0.1 percentage points off GDP growth. In addition to soaring prices for fresh foods like vegetables because of inclement weather, consumption was dampened by natural disasters that reduced dining and shopping opportunities.

Investment was disappointing, falling by 0.5% q-o-q, resulting in another 0.1 percentage point drag to growth. The main weakness within investment was from public investment and inventory, including finished goods and materials. Business investment fell by 0.2% q-o-q, making no contribution to growth. Net exports were a drag to real GDP growth by 0.1 percentage points. Weaker imports contributed positively, but not enough to offset the 1.8% q-o-q decline in exports, which wiped 0.3 percentage points off growth. Shipping capacity was reduced by the closure of Osaka's Kansai International Airport due to flooding, which also reduced the number of visitors to Japan, depressing inbound consumption.

Looking ahead, 2019 may prove a volatile year for Japan in terms of activity. From one side, there are positive signs that the economy is expected to expand further over the next year. Capital investment is poised to increase as consumption rallies and supply constraints in areas like logistics are eased. Japanese companies are eager to invest in equipment due to the country's chronic labour shortages. Corporate sales jumped 6.0% in the July–September period for the eighth consecutive quarter of expansion, while pre-tax profits rose 2.2% for the ninth straight quarter of growth. Months of strong profits have left Japanese companies with massive cash reserves. Retained earnings in the quarter surpassed ¥450 trillion for the first time, hitting ¥453 trillion. This represents a 16.5% surge from a year earlier, marking the largest on-year rise since the October–December period of 1980. A slow rise in labour costs coupled with healthy profits is also a factor behind swelling cash reserves. Finally, reconstruction is underway in areas hit by the natural disasters, and a rebound in production is expected to make up for a drop from July through September. The employment and income environment is also sound.

However, analysts warn that growth could stall next year, for a number of reasons. First of all, consumption could slow down as Prime Minister Abe recently reaffirmed his intention to raise the consumption tax, from 8% to 10% in October next year. Meanwhile, the weaker outlook for global trade suggests that external headwinds are also likely to weigh on the Japanese economy. For instance, companies in China are increasingly holding off on capital investment due to economic uncertainty, sapping orders from certain industries in Japan. "If exports slump more than expected on factors like the slowing Chinese economy, it will put downward pressure on the Japanese economy as a whole," said Kentaro Arita, senior economist at Tokyo's Mizuho Research Institute. Many analysts see also little room for the Bank of Japan (BOJ) to ramp up an already huge stimulus drive that is straining financial institutions. Japan's ballooning debt pile, the biggest among advanced economies, also constrains the government's ability to deploy a big spending package. "Monetary policy is stretched so it would be difficult to take additional easing steps. Fiscal measures are already being considered to offset a blow from the sales tax hike, so there's little room left on this front too," said Takeshi Minami, chief economist at Norinchukin Research Institute.

Economists also warned that over the medium term, the rapidly ageing and shrinking population would imply a commensurate drag on real output under current policies. In a recent study, the IMF estimated that in the next 40 years population decline would reduce GDP by 25%, unless the government boosts productivity through structural reform to mitigate the damage. Structural reforms are crucial to keeping the economy from slowing too much, the report said. It specifically pushed for a commitment to equal pay for equal work between permanent and irregular workers, on which Japan passed a law in June, and changes to tax and social benefit rules that discourage married women from seeking full-time work. Such efforts, combined with corporate governance reforms and trade liberalization, could "boost real GDP by as much as 15% in 40 years," compared with the baseline scenario, the IMF said.

MARKET DEVELOPMENTS

The world economy is growing strongly, continuing to underpin equity prospects.

Table 1: Market Developments

	Market Levels		Prediction for Dec/Jan 2019/20	
	Nov 6	Jan 3	Previous Letter	Current View
Share Indices				
UK (FT 100)	7041	6693	9582	9169
US (S&P 500)	2755	2448	3207	2874
Germany (DAX 30)	11484	10417	18444	16969
Japan (Tokyo New)	1659	1494	2293	2083
Bond Yields (government)				
UK	1.36	1.19	2.50	2.50
US	3.19	2.68	3.00	3.00
Germany	0.35	0.11	0.80	1.00
Japan	0.15	0.02	0.10	0.10
UK Index Linked	−1.56	−1.67	−1.00	−1.20
Exchange Rates				
UK ($ per £)	1.31	1.26	1.30	1.32
UK (trade weighted)	78.92	76.43	76.0	76.0
US (trade weighted)	102.00	102.02	102.5	102.5
Euro per $	0.88	0.88	0.86	0.88
Euro per £	1.15	1.10	1.12	1.16
Japan (Yen per $)	113.37	107.57	112.0	112.5
Short Term Interest Rates (3-month deposits)				
UK	0.83	0.93	1.00	1.60
US	2.64	2.74	2.50	2.80
Euro	−0.39	−0.32	−0.10	0.00
Japan	−0.25	−0.10	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	2.0	2.0	33.00		40.60
US	1.99	2.5	2.0	12.90	−4.76	14.63
Germany	3.30	2.0	1.9	59.00	−4.99	61.21
Japan	1.90	1.2	1.2	37.00	−9.57	31.73
UK indexed[2]	−1.67		2.0	0.90		1.24
Hong Kong[3]	2.60	5.6	2.0	−16.00	−4.76	−10.56
Malaysia	3.30	4.8	2.0	42.00	−4.76	47.34
Singapore	3.50	2.7	2.0	9.00	−4.76	12.44
India	1.40	8.0	2.0	22.00	−4.76	28.64
Korea	1.10	2.9	2.0	−22.00	−4.76	−20.76
Indonesia	2.20	5.4	2.0	25.00	−4.76	29.84
Taiwan	2.80	2.1	2.0	8.00	−4.76	10.14
Thailand	3.20	3.8	2.0	26.00	−4.76	30.34

Bonds: Contribution to £ yield of: −

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.19	−13.10		−11.91
US	2.68	1.80	−4.76	−0.28
Germany	0.11	−8.90	−4.99	−13.78
Japan	0.02	−0.80	−9.57	−10.35

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.93		0.93
US	2.74	−4.76	−2.02
Euro	−0.32	−4.99	−5.31
Japan	−0.10	−9.57	−9.67

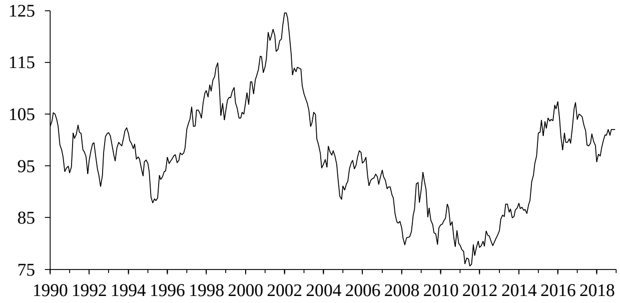
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

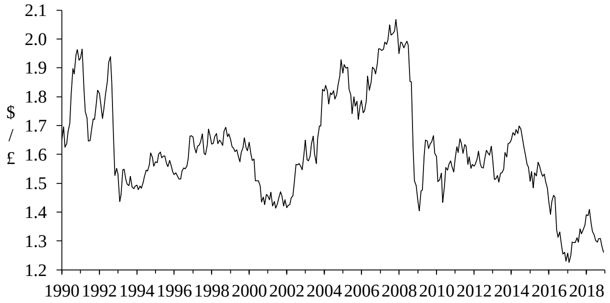
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	November Letter	Current View	November Letter	Current View	November Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-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

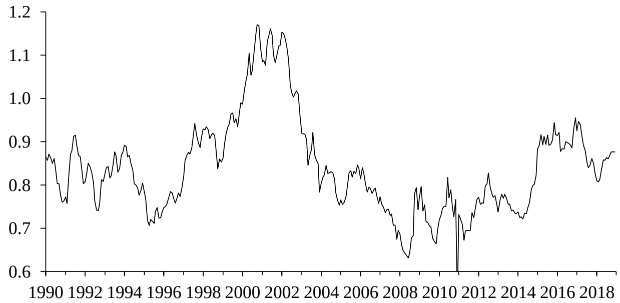
US : Trade Weighted Index
(Bank of England 1990 = 100)



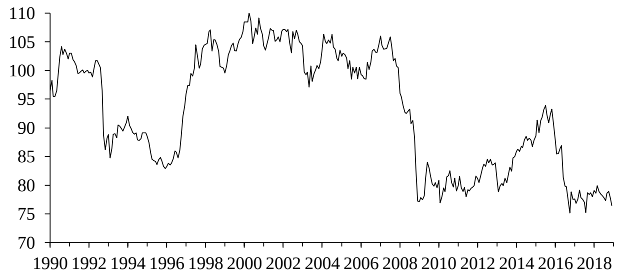
UK: Dollars Per Pound Sterling



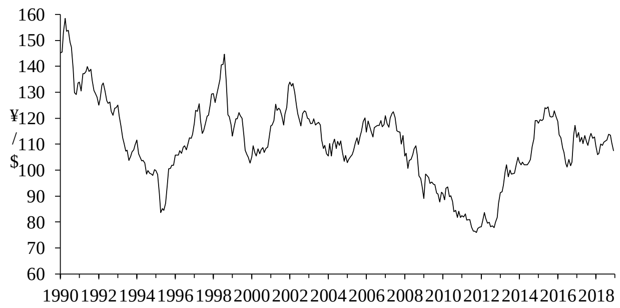
Euro per US dollar



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



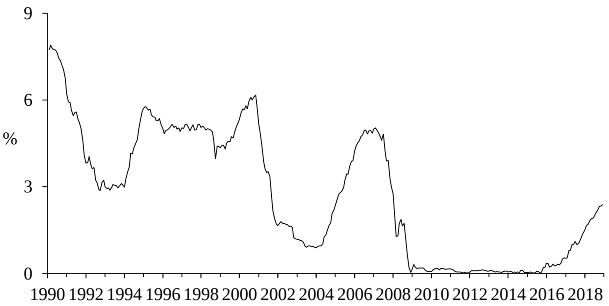
Japan : Yen Per U.S. Dollar



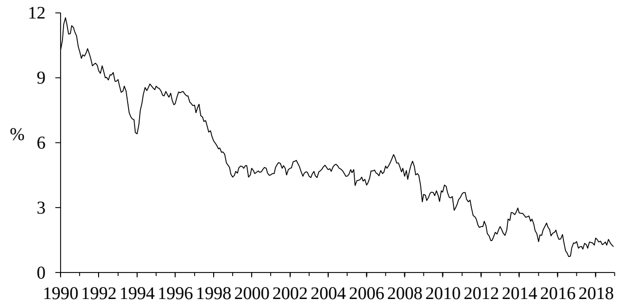
GOVERNMENT BOND MARKETS

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

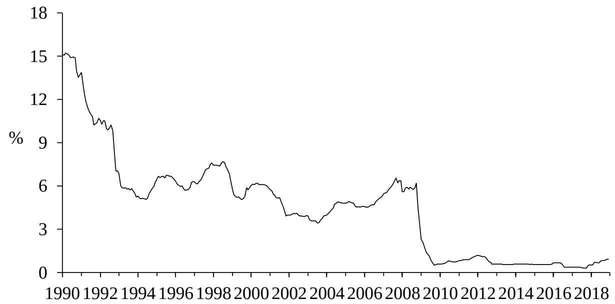
U.S. : 3-Month Treasury Bill



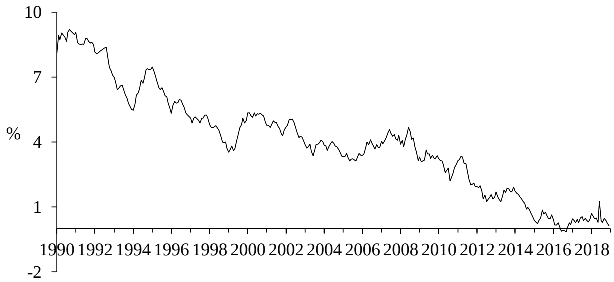
U.K.: Yield on Long-Term Government Bonds



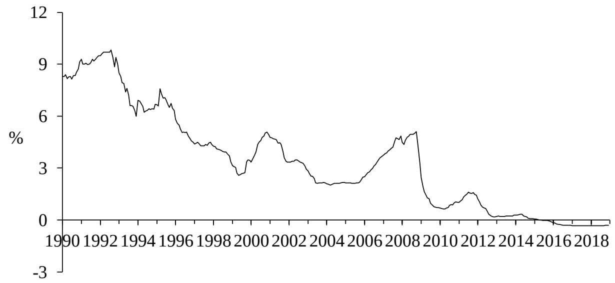
U.K. : 3-Month Certificate of Deposit Rate



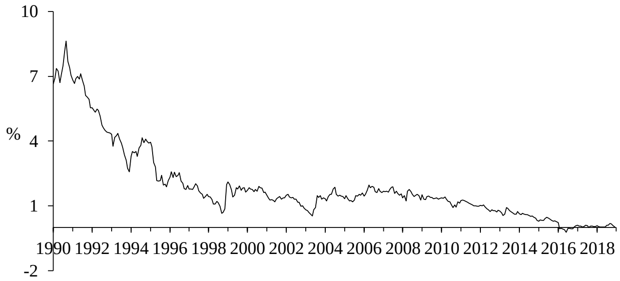
Germany: Yield on Public Authority Bonds



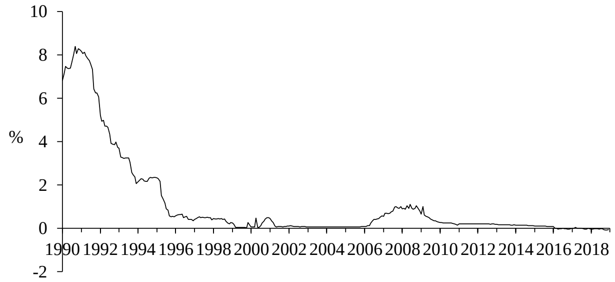
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

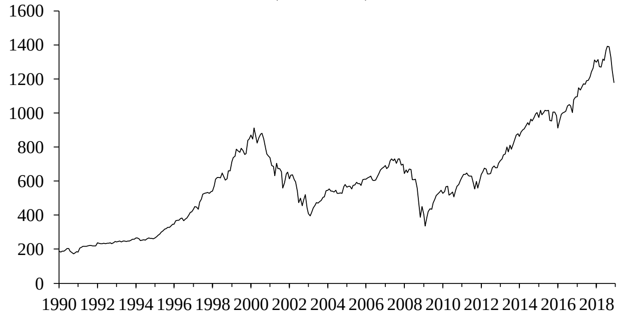


Japan : 3-Month Money Market Rate

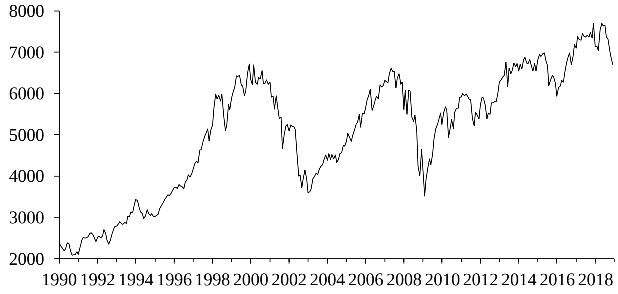


MAJOR EQUITY MARKETS

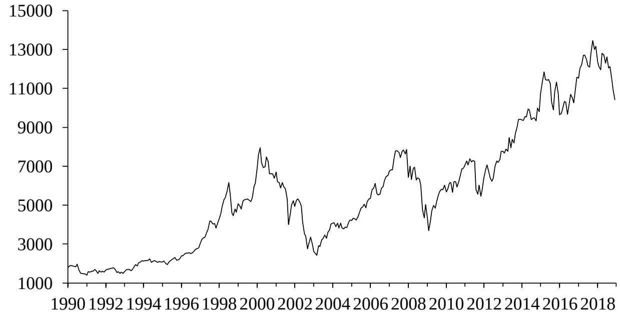
U.S. : S & P 400 Industrial
(1985=100)



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



Germany : DAX 30



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

EMERGING MARKETS

Anupam Rastogi

India

India remained the world's fastest growing large economy but its year-to-year expansion slowed to 7.1% in the third quarter of 2018 compared with 8.2% in the quarter before that. We expect GDP growth to be 7.6% in the current fiscal year as it is supported by pick up in capital goods sector. In the next fiscal year we expect GDP growth to be around 7.5%.

The Reserve Bank of India's monetary policy committee kept its repurchase rate steady at 6.5% in December after raising it twice in 2018. Inflation was below the RBI's medium-term target of 4% for a fourth straight month and the first time, since July 2017, it was below 3%. This gives us hope that the RBI's Monetary Policy Committee will cut 25bp in February/April 2019. The government appointed Shaktikanta Das, a career bureaucrat, as India's new central bank governor. He pledged to uphold the independence of the Reserve Bank of India two days after his predecessor, Dr Urjit Patel, quit after months of tensions with the government. He is expected to reset the relationship between the RBI and the government and handle better the working relationship between the RBI and the government.

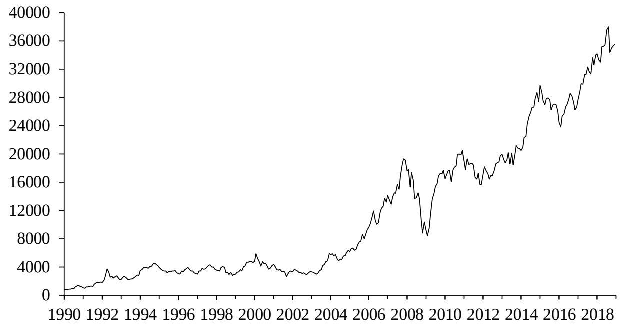
India's trade deficit narrowed to $16.7 billion, benefitting from a sharp fall in crude oil prices and only 4.3% growth in imports. Though the growth in India's merchandise exports slumped to 0.8% in November from 17.9% in October.

With oil prices falling by over 30% since October, India's external outlook is expected to improve.

The current account deficit is projected to be 2.5% of GDP, which is easy to finance. Before the crash in oil prices, the INR fell below the 74-barrier and reached an all-time low of 74.39 rupees to a dollar. However, the rupee has clawed back some ground against the US dollar as fears of a glut in the supply of oil have sent Crude and Brent prices tumbling. The rupee has been hovering around the 70-mark and is unlikely to depreciate much in 2019.

Companies and investors alike are betting that India — once seen as bureaucratically sclerotic and unpredictable — is turning into a destination that offers opportunity driven by hundreds of millions of consumers. Other deal drivers include industry consolidation, a better bankruptcy system and a growing willingness among owners of large family businesses to cash out.

India: BSE Sensitive



In all, mergers and acquisitions targeting Indian companies totalled $93.7 billion this year — up 52% from a year earlier — which is the highest tally since the economy started opening up in the 1990s, according to Dealogic. The value of overseas purchases in India has overtaken those in China. Acquirers spent $39.5 billion in India versus $32.8 billion in China, where growth is slowing and a trade battle with the U.S. is underway.

The S&P BSE Sensex index was up 4.2% in 2018, making it one of the few benchmarks in the world in positive territory.

Prime Minister Narendra Modi is facing headwinds. His party, the Bharatiya Janata Party, had electoral defeat in three major Indian states. The losses have made people to say that voters may throw Mr. Modi out of office in the General Elections due in May 2019. But it is too early to write off Mr. Modi's prospects. He remains a popular figure and a powerful orator, and his party is India's best-funded and best-organized. Yet it's clear Mr. Modi's tax-and-spend model of development is failing to enthuse voters. The main issue is that his government built plenty of roads, houses and toilets, and provided villages with electricity, cooking gas and internet connections, but they fell short in boosting incomes of farmers. Crop prices have risen slowly over the past four years in a part of the country that depends on agriculture and few non-farm jobs have materialized.

Modi still cultivates his image as a diligent and incorruptible leader who strives to make India a prouder, more powerful country. We have to wait and watch to see if voters would get swayed by this or not.

	17–18	**18–19**	**19–20**	**20–21**	**21–22**
GDP (%p.a.)	6.7	7.6	7.5	8.0	8.0
WPI (%p.a.)	3.5	4.5	4.7	4.2	4.0
Current A/c(US$ bill.)	-26.0	-70.0	-64.0	-64.0	-60.0
Rs./$(nom.)	65.0	70.2	71.5	72.5	73.5

China

China's manufacturing sector unexpectedly fell to 49.4 in December from 50.0 in November. This is the lowest level in nearly three years and pointing to gathering headwinds for the world's second-largest economy. Besides this there are other indicators showing that the Chinese economy is struggling with anaemic demand at home, global slowdown and the protracted trade fight with the U.S. The International Monetary Fund (IMF) expects China's GDP growth to weaken from 6.6% in 2018 to 6.2% in 2019. Our forecast also remains unchanged at 6.5% for 2018 and 6% for 2019. Chinese officials have said the economy would hit the official growth target of around 6.5% in 2018.

While it's easy to blame the trade tussle with the U.S. for the slowdown in the economy, the deceleration so far is mostly domestic driven, with infrastructure spending contracting sharply and consumer spending slowing down.

China's producer price index (PPI) grew 2.7% year-on-year last month, slowing from 3.3% in October. The People's Bank of China has moved into high gear and easing monetary policy to boost economic growth. The bank has announced that enterprises with bank credit lines less than 10 million yuan ($1.5 million) now are seen as small and micro enterprises, and bank lending to these companies, if reaching certain amount, can make lenders eligible for lower reserve requirements. Previously, only loans to companies with less than 5 million-yuan credit lines had been seen as small and micro loans.

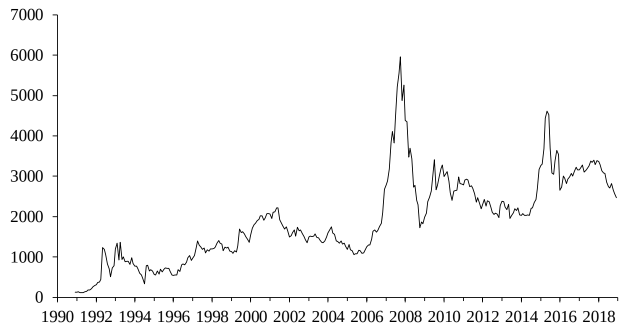
Overall, Chinese exports in November slowed unexpectedly as demand weakened in most markets, except in the U.S. Chinese exports to emerging and developed economies also slowed across the board in November, with growth slipping by more than half from October. Total exports grew 5.4% from a year earlier — the slowest pace in eight months — decelerating from a 15.6% increase in October.

China's imports expanded 3% year over year in November, down from a 21.4% increase in the previous month. We believe that slowdown is going to happen, regardless of the outcome of the trade talks because of structural changes in the economy.

One dollar is about 6.8658 yuan, after a 5.2% fall this year in renminbi. We expect renminbi to hover around 7 in 2019. However, China will probably continue to prevent the yuan exchange rate from falling further as a prerequisite for a trade deal with the United States before the March 1 deadline.

China's foreign-exchange reserves are likely to shrink moderately, from $3.04 trillion at the end of 2018 to $2.89 trillion at the end of 2019. China's holdings of U.S. government bonds dipped again in October, to $1.138 trillion. That is the fifth straight month of decline and the lowest total since May 2017.

China: SSE Composite Index



Chinese stocks have proved the worst performers among major world markets in 2018. The benchmark Shanghai Composite Index was down 24.6% in 2018.

Since President Trump and Chinese President Xi Jinping met in Buenos Aires on December 1, Beijing has pledged to cut tariffs, buy more U.S. goods and services, ease restrictions on foreign companies operating in China and further open sectors for foreign investment. The 90-day talks are due to wrap up on March 1. If no agreement is reached, the U.S. said it will boost tariffs on $200 billion of Chinese goods to 25% from the current 10%, potentially having a big impact on electronics, furniture, machinery and other U.S. industries that rely on Chinese imports. It could also deepen a slowdown in China's economy, which would have broad consequences for global growth. Beijing has rolled out a number of trade initiatives in the last one month. They include a temporary suspension in tariffs on U.S.-made autos, purchases of U.S. soybeans despite Chinese tariffs on U.S. agriculture, and pledges to revamp industrial policies in China that disadvantage foreign firms.

But, the arrest in Canada of Meng Wanzhou, chief financial officer of Chinese telecommunications giant Huawei, and the resulting response by Beijing suggests that a near-term détente between the world's two biggest economies is unlikely. At the heart of all this is structural changes on the fundamental issue of non-economic technology transfer and China's 'Made in China 2025' plan. President Xi has declared that no one is in the position to dictate to the Chinese people what should and should not be done. This public posture provides a stark counterpoint to reports that China has offered to scale back the 'Made in China 2025' plan which is all set to dominate high-tech industries in decades to come. We are all set to witness a new Cold War. The real goal is to prevent an adversary from gaining the edge at a pivotal moment when the technologies that will shape the 21st century are up for grabs, from 5G networks to artificial intelligence and quantum computing. What happens next in the Huawei affair could reverberate through the global economy. If the U.S. government decides to take down China's technology standard-bearer, it could put at risk a swath of U.S. business in China. Huawei's technical expertise, combined with its ties to China's blue-chip firms and government, could let it engineer another surprise in what many see as the critical backbone of future technology.

	17	18	19	20	21
GDP (%p.a.)	6.9	6.5	6.0	5.6	5.4
Inflation (%p.a.)	1.6	2.2	2.3	2.3	2.0
Trade Balance(US$ bill.)	400	300	300	300	260
Rmb/$(nom.)	6.6	6.8	7.0	7.1	7.1

South Korea

South Korea's economy grew only 0.6% in the third quarter of 2018 and may be able to post 2.6% growth for the full year. We assume that the last quarter figures come out to be positive. South Korea's inflation rate in December slowed to 1.3% on year, the weakest in five months, to end 2018 at an annualized rate of 1.5%. The inflation remained below the 2% annual target for the third straight year. Prices remained subdued throughout 2018 on weak domestic demand amid growing concerns over the country`s economic growth and dismal job market. As oil prices are likely to remain soft, inflation would not exceed 1.7% in 2019.

Exports fell 1.2% from a year earlier to $48.5 billion in December. Imports rose 0.9% from a year earlier to $43.9 billion, creating a trade surplus of $4.6 billion.

For the whole year, exports gained 5.5% in 2018 — much slower than a 15.8% increase in 2017.

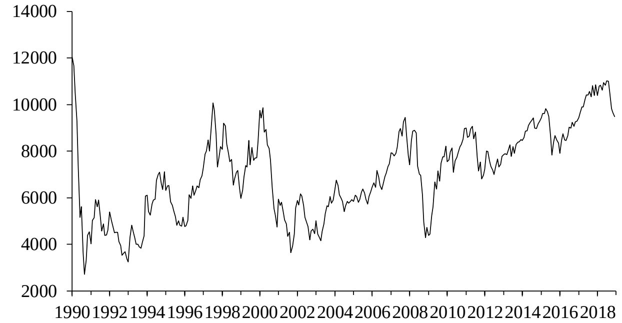
The country's exports of refined oil and petrochemicals have also recently been hit by declining crude prices. The ongoing trade dispute between the U.S. and China — the top trading partners of South Korea — is weighing on Korean exports.

South Korean exports surpassed the annual $600-billion mark for the first time this year, allowing the economy to become the world's seventh country to touch exports of more than $600 billion. The country exported $605.5 billion while importing $535 billion for the whole of 2018. South Korea shares this distinction with the United States, Germany, China, Japan, the Netherlands and France.

The South Korean parliament ratified a revised free-trade agreement with the U.S., the first such pact the Trump administration has successfully renegotiated. The approval meant that South Korean lawmakers backed down from their earlier demand that their country be exempt, in the event President Trump follows through on his threat to impose global auto tariffs in the name of national security. Mr. Trump had said that the original 2012 trade pact was unfair to the U.S. He has praised its revision as a "great" deal. Under the revised terms, Seoul agreed to double the cap on the number of vehicles each U.S. auto maker can sell annually in South Korea from 25,000 to 50,000 for cars that meet U.S. safety rules, not Korean ones. The new deal also let the U.S. keep a 25% tariff on Korean pickup trucks until 2041 — two decades longer than set by the original agreement.

Korea: Composite Index

Taiwan: Weighted TAIEX Price Index



	17	18	19	20	21
GDP (%p.a.)	3.1	2.6	2.8	2.9	2.7
Inflation (%p.a.)	1.9	1.5	1.7	1.7	1.7
Current A/c(US$ bill.)	88.0	86.0	80.0	78.0	70.0
Won/$(nom.)	1100	1130	1150	1150	1160

Taiwan

Taiwan's biggest economic challenges in 2019 are the U.S.-China trade war, financial market volatility, and geopolitical risks. Taiwan's economic growth is tapering off, and these three risk factors could lead to a potential economic downturn. In 2018, the economy grew 2.6% and in 2019, the economy is expected to grow by around 2.2%.

Inflation has been low at 0.31% in November from 1.17% in October. Taiwan's central bank left policy rate unchanged in its last meeting held in December. The central bank held its benchmark discount rate at 1.375%, where it has stood since June 2016. As the economy will be weaker in 2019, we expect the central bank to maintain a loose monetary policy to support the economy. In 2018 core inflation was 1.2% and is unlikely to remain around this in 2019 as well.

Taiwan's exports have been bolstered by global demand for electronics in the last quarter of 2018, but the trade sector will get affected by growing trade protectionism and tensions in 2019.

The U.S. dollar rose almost 3% against the Taiwan dollar in 2018, as successive interest rate hikes by the U.S. Federal Reserve led many investors to park their funds in US-denominated assets. The Taiwan dollar was relatively stable against the U.S. dollar compared with other currencies in 2018.

The leaders of China and Taiwan brawled over the prospects of unification, showing the decades-old split remains potentially volatile under intensifying pressure from Chinese President Xi Jinping to change the status quo. It seems that the Chinese president wants to resolve the 70-year split during his tenure. In a tightly calibrated 33-minute speech, meant as an address to Taiwan, Chinese President Xi Jinping said differences in political systems can't be used as an excuse to resist unification. He promised Taiwanese people a peaceful and prosperous future with the mainland while suggesting that Beijing's patience would wear thin if its overtures fail. He said unification between China and Taiwan is inevitable and that Beijing prefers peaceful means for achieving that goal, and military measures remain an option.

His remarks were a direct response to Taiwan President Tsai Ing-wen, who in her New Year's Day address said that the island's people want to preserve their own political system. She rejected Mr. Xi offer, saying Taiwanese voters won't go for the proposal, known as "one country, two systems." The framework would place the island under China's rule with limited autonomy, as has been done in Hong Kong.

	17	**18**	**19**	**20**	**21**
GDP (%p.a.)	2.6	2.6	2.2	2.1	2.1
Inflation (%p.a.)	0.6	1.2	1.2	1.2	1.0
Current A/c(US$ bill.)	68.0	68.0	70.0	71.0	70.0
NT$/$(nom.)	31.0	29.8	31.0	31.0	31.5

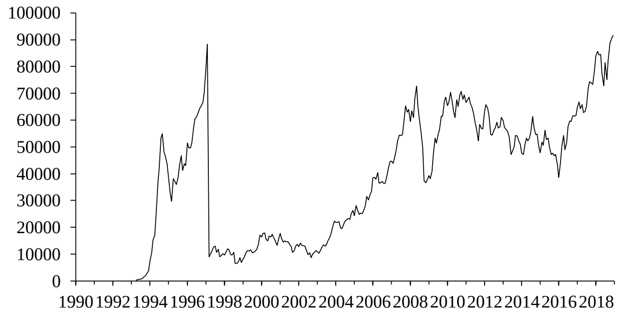
Brazil

The expected rebound of the Brazilian economy did not happen in 2018 and it grew only an estimated 1% in the year as a whole and is forecast to expand 3% this year. But Brazilians are optimistic about the economy. An opinion poll suggests that 65% of Brazilians are optimistic about the economy after the presidential election.

Brazil's inflation rate — as measured by the IPCA index — eased to 4.05% in the 12 months through November compared to 4.56% recorded in October. The country's central bank is targeting a 4.5% year-end rate for 2018 and 4.25% in 2019, plus or minus 1.5 percentage points. In their December meeting, the bank's nine-member monetary policy committee, known as Copom, kept the benchmark Selic rate at 6.50%. The new central bank governor is Roberto Campos Neto who is a University of California, Los Angles trained economist and former senior executive of Santander Bank Brazil. We expect the Selic rate to be left unchanged for a long time as inflationary expectations are low and price rises are well within the central bank's target range.

Brazil, under the new President Jair Bolsonaro, is expected to lead the change which shall boost sluggish growth, while signalling plans to cut the deficit in part by scaling back Brazil's pension system. Mr. Bolsonaro plans to align Brazil more closely with developed nations and particularly the U.S., shifting South America further to the right after decades of mostly leftist rule.

Brazil: Bovespa



Soon after being sworn in as president on January 1, he has issued many presidential decrees that include a cut to a planned increase in the minimum wage, a money-saving reduction in the number of government ministries and a victory for the country's powerful agricultural sector. His administration's biggest challenge will be attacking Brazil's generous pension system. Mr. Bolsonaro's party doesn't have enough votes on its own to get laws approved in either house of Congress, so his government will have to seek support from other parties. Efforts by previous presidents to reduce pension spending have met resistance from unions, legislators and the judiciary.

Lot of optimism is pinned on two of his appointees. First is the new justice minister, Sérgio Moro. He is supposed to deal with corruption and crime — the two maladies which badly affect the Brazilian society at present. As a judge, he led the Lava Jato (Car Wash) investigations into political corruption over the past four years. He was responsible for the jailing of Luiz Inácio Lula da Silva, a former president from the left-wing Workers' Party.

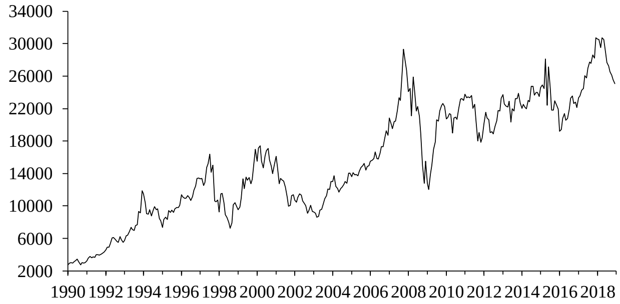
The second appointee is Paulo Guedes. He is a University of Chicago trained economist and will lead a ministry that will absorb those of finance, planning and industry. Mr. Guedes's support for deregulation, privatization, lower barriers to international trade and, above all, reform of Brazil's unaffordable pension system, could provide a tonic that the economy has long needed. He has assembled a team of market-oriented economists and is expected to push for a law that would give the central bank formal independence. But his market oriented agenda may get stunted as Mr. Bolsonaro's Social Liberal Party holds less than a tenth of the seats in the Congress. The president has shown a preference dealing with congressional caucuses, such as those representing the so-called bullet, beef and Bible (gun, ranching and religion) interests. Since the election, he has spent more time with friendly groups, like those representing pastors and police, than with parties. He hopes to assemble case-by-case coalitions in congress to pass legislation.

Congressmen will bow to popular pressure, he believes. He believes that he has the support of the public and congress will follow.

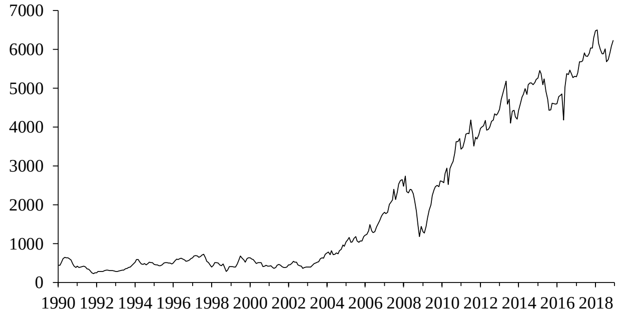
	17	**18**	**19**	**20**	**21**
GDP (%p.a.)	1.0	1.0	3.0	3.5	3.5
Inflation (%p.a.)	3.0	4.4	4.5	4.2	4.5
Current A/c(US$ bill.)	4.0	-18.0	-16.0	-16.0	-16.0
Real/$(nom.)	3.2	3.8	3.7	3.6	3.8

Other Emerging Markets

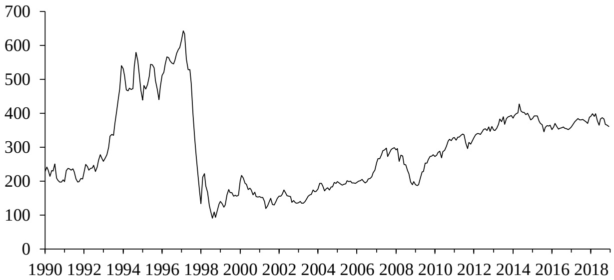
Hong Kong: FT-Actuaries



Indonesia: Jakarta Composite

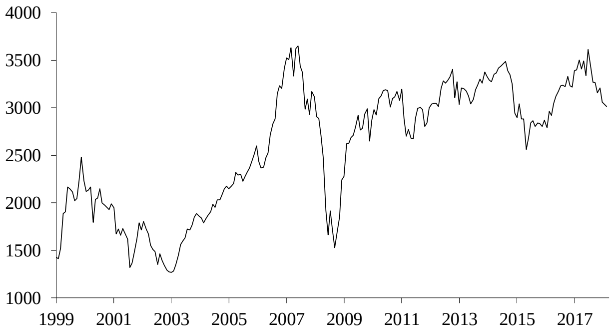


Malaysia: FT-Actuaries (US$ Index)

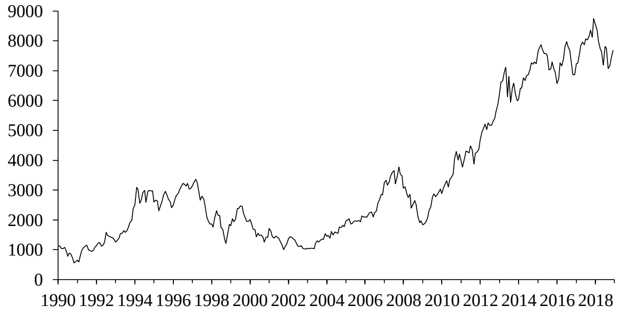


Thailand: Composite Index

Singapore: Straits Times Index

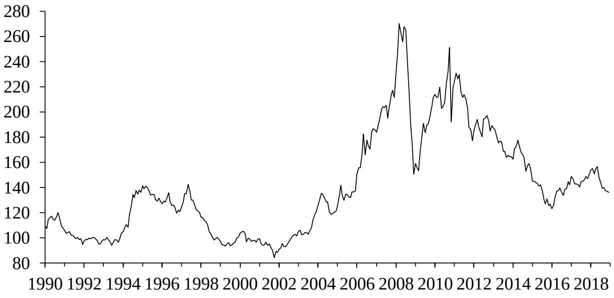


Philippines: Manila Composite

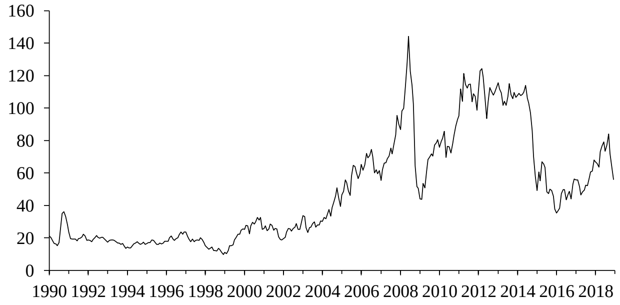


COMMODITY MARKETS

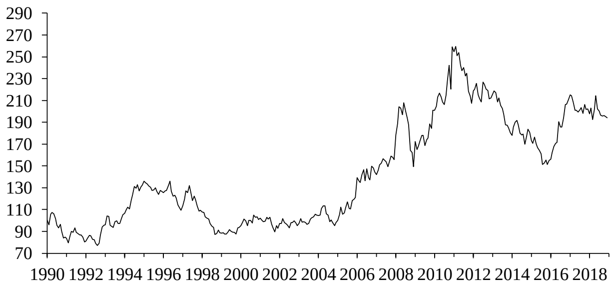
Commodity Price Index (Dollar)
(Economist, 2000=100)



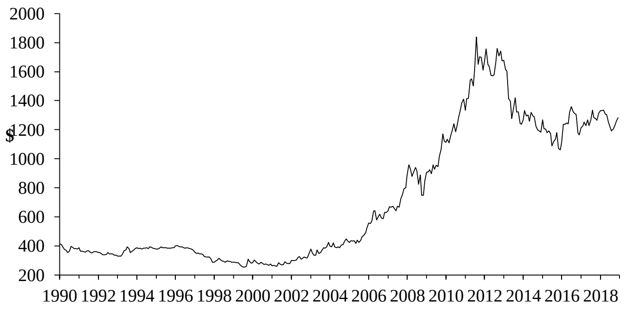
Oil Price: North Sea Brent (in Dollars)



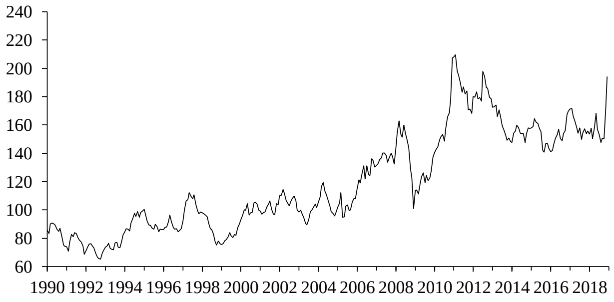
Commodity Price Index (Sterling)
(Economist, 2000=100)



Gold Price (in Dollars)



Commodity Price Index (Euro)
(Economist)



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]
2017	2.6	0.6	0.4	77.4	75.5	-1.6	3.8	-1.5
2018	2.5	1.5	0.6	77.4	75.8	-1.5	3.5	-0.5
2019	2.2	2.5	1.1	76.2	74.9	-1.0	2.9	0.5
2020	2.0	3.4	2.4	75.4	74.3	0.4	2.6	1.4
2021	2.0	2.9	3.1	75.5	74.9	1.0	2.5	0.9
2022	2.0	2.6	3.1	75.2	74.8	1.1	2.6	0.7
2017:1	2.2	0.6	0.3	76.8	75.0	-1.7	3.3	-1.5
2017:2	2.6	0.4	0.4	78.2	76.4	-1.5	3.8	-1.7
2017:3	2.7	0.6	0.3	76.7	74.5	-1.5	4.0	-1.5
2017:4	2.8	0.8	0.4	77.9	76.0	-1.7	4.1	-1.3
2018:1	2.5	1.0	0.5	79.2	78.0	-1.6	3.6	-1.0
2018:2	2.6	1.5	0.5	77.0	75.4	-1.7	3.6	-0.5
2018:3	2.5	1.8	0.8	77.1	75.4	-1.4	3.5	-0.2
2018:4	2.5	1.8	0.8	76.2	74.4	-1.4	3.4	-0.2
2019:1	2.2	2.5	0.8	76.6	75.4	-1.3	2.9	0.5
2019:2	2.2	2.5	1.0	76.5	75.4	-1.1	2.9	0.5
2019:3	2.2	2.5	1.0	75.9	74.4	-1.0	2.8	0.5
2019:4	2.2	2.5	1.5	75.7	74.3	-0.5	2.9	0.5

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)
2017	259.1	2.9	2.2	0.8	141.7
2018	265.8	2.7	2.2	0.8	142.2
2019	272.3	2.4	2.1	0.8	142.5
2020	276.9	1.7	1.9	0.7	142.7
2021	283.4	2.4	1.9	0.7	142.3
2022	289.8	2.3	1.5	0.6	142.9
2017:1	258.1	2.1	0.8	142.2	190.2
2017:2	257.3	2.3	0.8	141.6	192.2
2017:3	260.2	2.2	0.8	142.7	194.0
2017:4	260.9	2.3	0.8	142.2	196.0
2018:1	264.6	2.3	0.8	142.8	196.1
2018:2	264.3	2.1	0.8	141.8	199.6
2018:3	267.0	2.1	0.8	142.9	201.3
2018:4	267.3	2.1	0.8	142.2	203.1
2019:1	269.7	2.0	0.7	142.3	203.0
2019:2	271.9	2.0	0.7	142.7	204.9
2019:3	272.8	2.0	0.7	142.9	206.7
2019:4	274.8	1.9	0.7	143.0	208.5

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as%age 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
2017	162.3	777336.9	443745.6	302292.1	198857.7	-65371.5	102187.0
2018	164.7	788702.9	452535.4	300001.6	200246.3	-62820.3	101237.1
2019	167.8	803486.7	458033.7	303844.4	200602.7	-55631.9	103388.8
2020	171.1	819157.6	466811.5	305454.3	201938.2	-49424.8	105622.7
2021	174.6	836277.7	476328.1	309328.2	203070.4	-44408.2	108042.3
2022	178.6	855233.2	486139.0	312409.7	204308.6	-36921.2	110703.2
2017/16	1.8		0.6	0.8	0.4	-0.7	0.6
2018/17	1.5		2.0	-0.7	0.7	-0.8	2.0
2019/18	1.9		1.2	1.3	0.2	2.1	1.2
2020/19	2.0		1.9	0.5	0.7	2.2	1.9
2021/20	2.1		2.0	1.3	0.6	2.3	2.0
2022/21	2.3		2.1	1.0	0.6	2.5	2.1
2017:1	161.5	193340.7	110460.5	76110.0	50838.0	-16948.9	27118.9
2017:2	161.9	193817.5	111360.7	74039.4	48893.4	-16008.3	24467.6
2017:3	162.6	194710.8	110910.0	75858.8	49324.8	-15656.7	25726.1
2017:4	163.3	195468.0	111014.4	76284.0	49801.5	-16757.6	24874.3
2018:1	163.6	195906.9	110726.8	75395.5	51361.5	-16549.5	25007.4
2018:2	164.3	196658.4	113112.9	76462.4	49463.3	-17119.9	25257.6
2018:3	165.0	197581.8	114100.5	74023.6	49577.5	-14658.4	25458.2
2018:4	165.8	198555.8	114595.2	74120.1	49844.0	-14492.5	25513.8
2019:1	166.7	199543.9	113052.0	76413.1	50526.0	-14820.6	25636.7
2019:2	167.3	200322.9	114121.4	76582.8	50009.7	-14624.9	25773.7
2019:3	168.2	201324.8	115127.6	74790.6	50056.5	-12733.9	25925.3
2019:4	169.0	202295.1	115732.7	76058.0	50010.4	-13452.6	26053.1

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

Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2017	2.0	2047.3	39.4	79.9	-66.3
2018	1.4	2131.8	30.7	82.7	-60.3
2019	1.0	2219.8	21.8	87.5	-49.5
2020	0.2	2309.9	5.6	94.6	-39.7
2021	-0.3	2406.9	-6.7	98.0	-31.0
2022	-0.6	2513.2	-15.1	99.5	-17.9
2017:1	-2.9	507.9	-14.6	20.0	-15.7
2017:2	5.0	503.8	25.3	20.0	-20.5
2017:3	2.3	510.3	11.8	19.7	-15.3
2017:4	3.2	513.3	16.5	19.9	-14.8
2018:1	-2.7	520.0	-14.3	20.2	-13.4
2018:2	1.3	525.5	6.8	20.3	-22.2
2018:3	1.5	529.4	7.7	20.7	-13.5
2018:4	1.5	535.0	7.8	20.8	-11.3
2019:1	1.6	541.9	8.5	21.0	-10.8
2019:2	1.1	547.3	5.9	21.3	-18.4
2019:3	0.9	551.2	5.1	21.3	-10.6
2019:4	0.8	557.4	4.6	22.0	-9.6

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2015	2016	2017	2018	2019	2020
U.S.A.	2.9	1.5	2.3	2.7	2.4	2.5
U.K.	2.3	1.9	1.8	1.5	1.9	2.0
Japan	1.4	1.0	1.7	1.4	1.1	1.2
Germany	1.7	1.9	2.2	2.3	1.8	2.0
France	1.0	1.1	2.0	1.9	1.7	1.9
Italy	1.0	0.9	1.5	1.4	1.1	1.2

Growth Of Consumer Prices

	2015	2016	2017	2018	2019	2020
U.S.A.	0.1	1.3	2.1	2.5	2.2	2.0
U.K.	0.2	1.1	2.6	2.5	2.0	2.0
Japan	0.8	–0.1	0.5	0.9	1.1	1.2
Germany	0.3	0.5	1.8	1.7	1.8	1.9
France	0.0	0.2	1.0	1.3	1.5	1.6
Italy	0.1	–0.1	1.2	1.1	1.4	1.5

Real Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	–1.1	–1.6	–0.9	–0.4	0.5	0.8
U.K.	0.0	–1.2	–1.5	–1.0	0.4	1.0
Japan	0.1	–0.4	–0.8	–1.0	–1.1	–1.1
Germany	–0.6	–2.0	–2.0	–2.0	–2.1	–2.0
France	–0.2	–1.3	–1.6	–1.7	–2.1	–1.8
Italy	0.0	–1.5	–1.4	–1.6	–2.1	–1.5

Nominal Short-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	0.2	0.5	1.4	1.8	2.5	2.8
U.K.	0.6	0.5	0.4	0.6	1.1	2.4
Japan	0.2	0.1	0.1	0.1	0.1	0.1
Germany	–0.1	–0.3	–0.3	–0.2	–0.2	0.0
France	–0.1	–0.3	–0.3	–0.2	–0.1	0.0
Italy	–0.1	–0.3	–0.3	–0.2	–0.1	0.0

Real Long-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	0.3	0.5	0.8	1.0	1.5	1.8
U.K.	–0.7	–1.5	–1.5	–0.5	0.5	1.4
Japan	–0.5	–1.0	–1.1	–1.3	–1.5	–1.5
Germany	–0.9	–1.7	–1.5	–1.4	–1.1	–1.0
France	–0.7	–0.9	–0.9	–0.8	–0.6	–0.5
Italy	0.4	0.1	0.3	0.4	0.6	1.3

Nominal Long-Term Interest Rates

	2015	2016	2017	2018	2019	2020
U.S.A.	2.2	2.5	2.8	3.0	3.5	3.8
U.K.	1.3	0.7	0.6	1.5	2.5	3.4
Japan	0.3	0.0	0.1	0.1	0.1	0.1
Germany	0.6	0.1	0.4	0.6	0.9	1.0
France	1.0	0.7	0.8	1.1	1.4	1.5
Italy	1.6	1.7	1.9	2.3	2.6	2.7

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

	2015	2016	2017	2018	2019	2020
U.S.A.	93.0	94.0	94.5	94.8	95.0	95.2
U.K.	92.2	81.4	75.5	75.8	74.9	74.3
Japan	56.0	58.4	58.3	58.1	58.4	58.3
Germany	94.7	95.0	94.3	94.9	95.1	95.0
France	96.2	96.0	95.3	95.1	95.5	95.4
Italy	102.1	102.0	101.2	101.1	101.1	101.0

[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)

	2015	2016	2017	2018	2019	2020
U.S.A.[1]	103.08	101.91	102.20	102.40	102.50	102.50
U.K.	1.53	1.35	1.30	1.29	1.30	1.32
Japan	121.11	108.61	112.18	114.10	112.00	112.50
Eurozone	0.90	0.90	0.88	0.85	0.86	0.85

[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