LIVERPOOL INVESTMENT LETTER

May 2018

Cardiff Business School
Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics

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LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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

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

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THE EFFECTS OF BREXIT ON THE ECONOMY AND THE LIVERPOOL FORECASTING RECORD

In the last week our forecasting record has come under fire in the FT from Chris Giles[1], with the assertion that it has been worse than that of the Consensus of economists; and also no better absolutely than the Treasury before the referendum — we were 'badly over-optimistic', while the Treasury was 'badly over-pessimistic' but 'we both had a referendum to win'. Furthermore 'our record had got steadily worse over 2016 and 2017', on the basis of our forecasts immediately after the referendum in July 2016.

This is complete and indeed irresponsible nonsense, even on provisional ONS estimates, which look as if they will be revised upwards. The ONS has recently admitted to underestimating telecoms productivity growth and also the growth of exports. The latest GDP estimate for the first quarter has been bedevilled by terrible weather. We shall see how big the revisions are when the statistical fog clears in a year or three. What is undeniable and worrying is the flawed and downward-biased pessimism of the official and corporate economist consensus, which Chris Giles is, for some extraordinary reason, determined to defend. It really does seem that Brexit has warped the minds of many otherwise sane economists.

Take first of all the pre-referendum forecasts of the Treasury and ourselves for the Brexit case (our forecasts were also used by Economists for Brexit, now renamed Economists for Free Trade, denoted EFT).

Growth (%)	Second Half 2016*	Error	2017	Error	Accum. Error Q4 17 v. Q2 16
Latest ONS Est. (04/18)	1.1		1.8		2.8
Treasury 05/16: severe shock	-0.9	-2.0	-1.3	-3.1	-4.9
Treasury 05/16: shock	0.0	-1.1	0.0	-1.8	-2.9
Liverpool/EFT 05/16	1.3	+0.2	2.7	+0.9	+1.2

*growth of second half on first half; uses ONS estimates from July 2016.

It can be seen that our error in 2016 was a small overestimate of 0.2, against a Treasury underestimate of 1.1-2.0%; and the accumulated error between Q2 2016 and Q4 2017 was a 1.2 overestimate for us versus a huge 2.9–4.9 underestimate by the Treasury, nearly three to five times our absolute error. The Treasury's forecast has of course rightly become nationally notorious whereas we were a bit on the upside,

Table 1: Summary of Forecast

	2016	2017	2018	2019	2020	2021	2022
GDP Growth[1]	1.8	2.2	2.0	1.9	1.9	2.2	2.3
Inflation CPI	1.1	2.6	2.5	2.1	2.0	2.1	2.8
Wage Growth	2.4	2.0	2.3	1.8	1.8	2.6	3.6
Unemployment (Mill.)[2]	0.8	0.8	0.8	0.7	0.7	0.6	0.5
Exchange Rate[3]	80.6	74.9	75.0	74.5	73.1	72.4	71.7
3 Month Interest Rate	0.5	0.4	0.6	1.2	2.4	3.1	3.1
5 Year Interest Rate	0.7	1.1	1.4	2.5	3.5	2.9	2.6
Current Balance (£bn)	-87.4	-65.6	-54.3	-49.4	-39.0	-26.4	-15.4
PSBR (£bn)	45.1	40.1	33.4	24.2	6.6	-6.6	-10.8

[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)

which given the usual problems with this data is within the customary margins.

Now if we turn to the post-referendum comparison of EFT with the Consensus we find:

Growth (%)	Second Half 2016*	Error	2017	Error	Accum. Error Q4 17 v. Q2 16+
Latest ONS Est. (04/18)	1.1(1.9)		1.8		2.8
Consensus 07/16	0.05(1.6)	-1.05	0.6	-1.2	-2.1
Liverpool/EFT 07/16	1.3(2.3)	+0.2	2.7	+0.9	+1.2

* growth of second half on first half required to hit Aug 2016 forecast for the year 2016, given ONS GDP estimates published July 2016. In brackets are figures for whole year forecast.
\+ Smooth quarterly pattern assumed for both Liverpool/EFT and Consensus giving forecast year on year growth.

We cannot compare what is happening in 2018 because the Consensus did not forecast 2018 in July 2016. However, the first quarter of 2018 is in any case heavily affected by weather, with construction dropping sharply, probably related both to the actual weather and the weather forecast, so that work was simply pushed to later in the year. We must judge our and the Consensus forecasts made in 2017 for 2018 when we have some more 2018 data.

As can be seen the accumulated error of Liverpool/EFT by the end of 2017 was about half that of the Consensus, while the error for 2016 was a fifth of it. While not on the Treasury super-scale the Consensus error is massive — basically they missed a whole year's growth.

The OBR and the Bank made no comparable forecasts, though the FT includes them on the pretence they did. The OBR made no forecast until November by which time the economy's post-Brexit stability was well apparent. The

[1] Chris Giles "Growth and Brexit: four lessons from the forecast wars https://www.ft.com/content/a3a17eac-4a0b-11e8-8ee8-cae73aab7ccb

Bank forecast was published on August 4, when it announced a four-point monetary stimulus, including large QE and an interest rate cut — thus having a massive information advantage compared with private forecasts in July. Both organisations therefore were far more optimistic than the Consensus in July 2016, with good reason. Even so they produced forecasts for 2017 that were much too gloomy. Their forecasts are appended below.

Chris Giles in the FT goes on from these forecasts to assert that 'Brexit has reduced growth' but forecasts have no bearing on this and this assertion is transparently false. We are currently at full employment with wages accelerating; without Brexit there could not have been 'fuller' employment. Brexit has in fact changed the shape of the economy via a sharp devaluation, causing a shift from consumption to net exports and traded sector profits, a necessary correction when we were running an unsustainable current account deficit of nearly 7% of GDP. But Brexit cannot have changed the overall level of employment — or output, as it is too early for any effect on productivity.

In fact what forecasters are now converging on is the limit on pre-Brexit productivity growth as measured (even after all obvious revisions) by the ONS. Even though 80% of our economy is now services the ONS is making no serious effort to measure their productivity growth accurately, which means proper assessment of their growing quality; yet it is plain that the quality of services has been and continues to grow, from the simplest observations of how our everyday lives are assisted by the services of mobile phones, Wi-Fi and internet-based shopping (for more on this see https://www.economistsforfreetrade.com/publication/alternative-brexit-economic-analysis). So it is that we are faced by 'GDP growth rates' stubbornly stuck below 2%, simply because we refuse to measure them properly. This can hardly be dubbed a Remainer triumph!

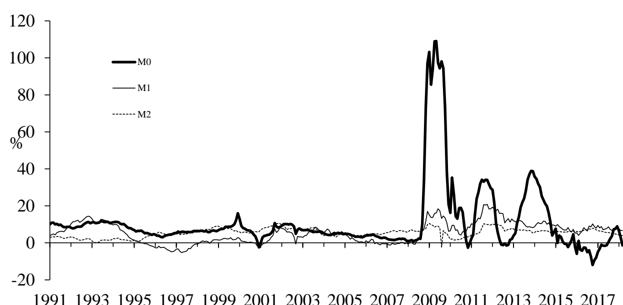
As Chris Giles at the FT well knows the real question about the effects of Brexit is how the supply-side capability of the economy will react to it — namely how productivity will respond to free trade and other post-Brexit policies. We have estimated these effects on the basis of actual government policy as generating around 7% more on GDP over the long term. Now that the Civil Service has jettisoned the Treasury's methods in favour of the GTAP Computable General Equilibrium model from Purdue University, their estimates of the trade effects on the same assumptions ought to be rather similar to ours. Getting these assumptions right is where economists should now be turning their attention.

Appendix Note for Information on Bank and OBR Forecasts

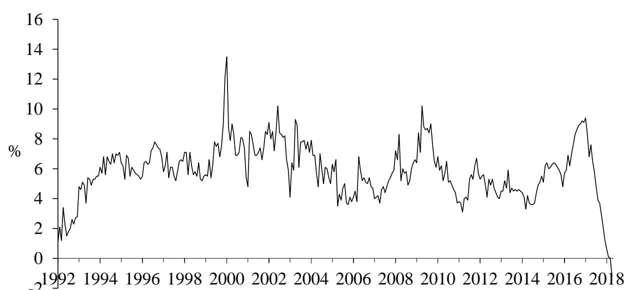
Growth (%)	Second Half 2016*	Error	2017	Error
Latest Outturn ONS (04/18)	1.1(1.9)		1.8	
Bank of England (08.18)	1.0(2.0)	-0.1	0.8	-1.0
OBR (11/16)	1.1(2.1)	0.0	1.4	-0.4

*growth of second half on first half; uses ONS estimates from July 2016.

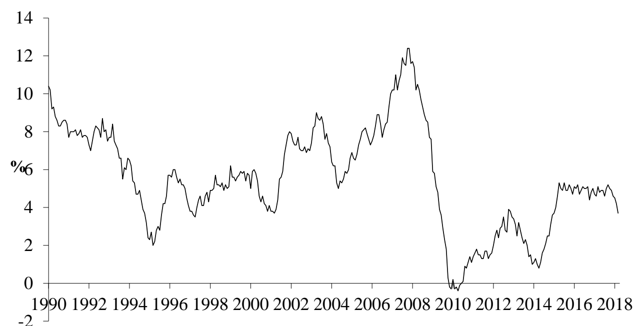
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



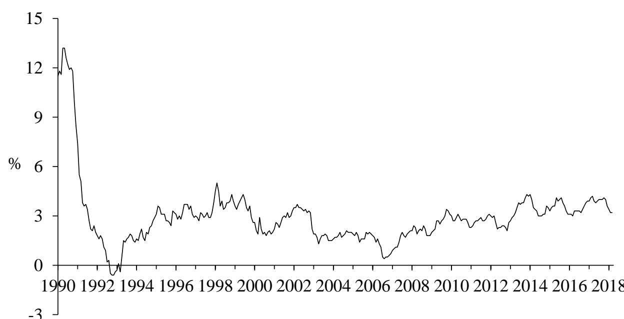
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

BOJ Abandons Target Date for Achieving 2% Inflation

The Bank of Japan (BOJ) kept monetary policy unchanged at Governor Haruhiko Kuroda's first meeting of his second term last month. However, at the same time, the central bank deleted from its statement the date for achieving 2% inflation, which had been targeted for "around fiscal 2019", after pushing back the target date six times since 2013. Posting the 2% forecast was not appropriate as regards communication with the market," said Kuroda at a news conference on the bank's decision. "There was a market tendency to see our forecast as a deadline, and to seek connection between the forecast and policy actions," Kuroda added.

Dropping the forecast was viewed by some economists as Kuroda's waning confidence in making the target date. "BOJ board members were feeling it's getting harder and harder to meet the target around fiscal 2019 and they couldn't keep the forecast any longer because of the huge uncertainty. Almost all of them see risks are on the downside", said Kazuo Momma, a former BOJ executive director in charge of policy planning. "The board also disliked the time frame being used as an argument for additional stimulus, and decided that its own policy freedom was more important than any effects of the timing on inflation expectations", echoed Hideo Kumano, chief economist at Dai-ichi Life Research Institute and a former BOJ official. "They used to say the target has a lot of impact in terms of expectations, but they're no longer adhering to that line," Kumano said. "I think they want to say that they have both the yield-curve control and the overshoot commitment, so it's ok even if they didn't clarify the timing for reaching the target."

Economists also pointed to the arrival of Masazumi Wakatabe, the dovish newly appointed deputy governor, as another possible reason for removing the time reference. "Leaving it in place could have led Wakatabe to push for more stimulus", said Masaaki Kanno, chief economist at Sony Financial Holdings and a former BOJ official. "He wants to support Kuroda as a deputy but at the same time, doing nothing when another delay took place would completely contradict what he said before joining the board," Kanno said. "So in a way, another delay was going to provide an allegiance test for Wakatabe and the BOJ saved him by ditching the forecast altogether."

The policy meeting was Wakatabe's first. He voted with the board and didn't make any proposals. Even after five years of pumping massive amounts of money into the economy, the BOJ's key inflation gauge stood at 0.9% in March. Eighty-five percent of economists surveyed said they don't think Kuroda can meet the price goal before his term ends in 2023.

But Kuroda denied this. "I think the possibility of inflation reaching 2% in fiscal 2019 is still high", said Kuroda. "The bank will continue to pursue strong monetary easing, with a view to achieving the price stability target of 2% at the earliest possible time". Meanwhile, inflation in Japan remains subdued with prices, excluding fresh food and energy, up 0.5% on a year ago in March. There is little momentum towards the BOJ's objective of 2% inflation.

Besides dropping the 2% target, the BOJ's policy board voted 8-1 to keep the benchmark interest rate at -0.1%. The BOJ also said it will continue to keep the yield on 10-year Japanese government bonds, or benchmark long-term interest rates, near 0%. To hold rates at that level under its yield-curve control policy, the bank will increase its JGB holdings by about ¥80 trillion a year. The BOJ unanimously voted to maintain its asset purchasing targets for exchange traded funds and Japan real-estate investment trusts, adding ¥6 trillion of ETFs and ¥90 billion of J-REITs to its balance sheet annually. The central bank's decision to stay the course was based on its solid economic forecast.

The report showed that the bank expects the economy to stay strong, despite Prime Minister Shinzo Abe wanting to hike the consumption tax to 10% from the current 8% in October 2019. "There is still momentum building toward the 2% price stability target, but the bank will continue to carefully monitor the situation," said Kuroda.

The danger for Kuroda is that either a new downturn arrives before inflation or else prolonged negative rates do serious harm to Japan's financial sector. The banks have managed well so far, but those who doubt the BOJ's ability to generate inflation think it should ease off on stimulus to make the policy more sustainable. "I think the costs of the current policy framework will exceed the benefits at some point in Kuroda's second term," says Kiichi Murashima, an economist at Citi in Tokyo. "The BOJ's challenge will be how to normalise policy even when inflation is below 2%".

It is time for monetary policy in Japan to be reassessed. With interest rates at the zero bound at all points in the yield structure, money has become a superior asset to bonds, since bonds have yield risk while money does not. This implies that the demand for money is essentially infinite since it can potentially replace all bond holdings. The problem that Japan faces from this policy is that printing more money will not stimulate demand or prices; furthermore the savings market is highly distorted, with negative real interest rates. Increasingly both the US and soon the UK are trying to tackle this problem by raising interest rates gradually: at some point they should exceed the rate of inflation. Long term rates on US bonds are now over 3% and so now do so but they need to rise further.

For Japan, interest rates need also to rise and the inflation target, which is infeasible, needs to be abandoned in favour of price stability which has been approximately what Japan has enjoyed for a long time now as an equilibrium. With interest rates higher real rates will rise and the savings market distortions can be eliminated.

MARKET DEVELOPMENTS

Trump is now succeeding in getting China to reduce protection and stop thieving intellectual property. Germany is offering to spend more on defence and the EU is talking about cutting tariffs — all to head off Trump's tariff threats on steel. When you add in the recent US tax cuts the world economy's prospects imply solid growth at the upper end of the 3–4% range. With commodity and oil prices still well off their peaks, this world growth rate does not look threatened for some time ahead. Equity prospects therefore remain good. The US is taking a lead in raising interest rates; the UK will slowly follow. That leaves the EU and Japan still running strongly expansionary monetary policies; but these are badly distorting their savings markets by making real rates negative. Interest rates must rise and this will undermine bond returns for several years to come.

Table 1: Market Developments

	Market Levels		Prediction for Apr/May 2019	
	Apr 4	May 2	Previous Letter	Current View
Share Indices				
UK (FT 100)	7034	7543	9742	10402
US (S&P 500)	2645	2636	3205	3068
Germany (DAX 30)	11958	12802	18953	20560
Japan (Tokyo New)	1706	1772	2116	2448
Bond Yields (government				
UK	1.40	1.40	1.50	1.50
US	2.79	2.79	3.00	3.00
Germany	0.44	0.44	0.80	0.80
Japan	0.01	0.01	0.10	0.10
UK Index Linked	−1.61	−1.53	−1.00	−1.00
Exchange Rates				
UK ($ per £)	1.41	1.36	1.30	1.28
UK (trade weighted)	79.87	78.86	76.10	75.50
US (trade weighted)	96.86	99.11	102.4	102.5
Euro per $	0.81	0.84	0.85	0.86
Euro per £	1.15	1.14	1.11	1.10
Japan (Yen per $)	106.5	110.0	114.1	114.3
Short Term Interest Rates (3-month deposits)				
UK	0.78	0.69	0.70	0.80
US	2.29	2.32	1.80	2.50
Euro	−0.41	−0.41	−0.20	−0.10
Japan	0.10	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	1.8	2.1	34.00		41.50
US	1.99	2.4	2.1	11.90	5.88	24.27
Germany	3.30	1.8	1.8	57.00	3.22	67.13
Japan	1.90	1.1	1.1	36.00	2.18	42.28
UK indexed[2]	−1.53		2.1	1.00		1.58
Hong Kong[3]	2.60	6.0	2.1	−12.00	5.88	4.58
Malaysia	3.30	5.4	2.1	48.00	5.88	64.68
Singapore	3.50	2.9	2.1	11.00	5.88	25.38
India	1.40	8.1	2.1	23.00	5.88	40.48
Korea	1.10	2.0	2.1	−31.00	5.88	−19.92
Indonesia	2.20	5.5	2.1	26.00	5.88	41.68
Taiwan	2.80	2.5	2.1	12.00	5.88	25.28
Thailand	3.20	3.4	2.1	22.00	5.88	36.58

Bonds: Contribution to £ yield of:

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.40	−1.00		0.40
US	2.79	−2.10	5.88	6.57
Germany	0.44	−3.60	3.22	0.06
Japan	0.01	−0.90	2.18	1.29

Deposits: Contribution to £ yield of:

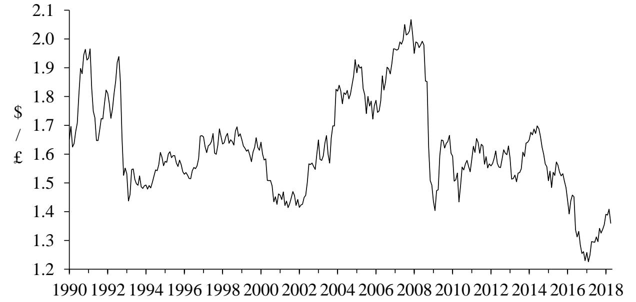
	Deposit Yield	Currency	Total
UK	0.69		0.69
US	2.32	5.88	8.20
Euro	−0.41	3.22	2.81
Japan	0.10	2.18	2.28

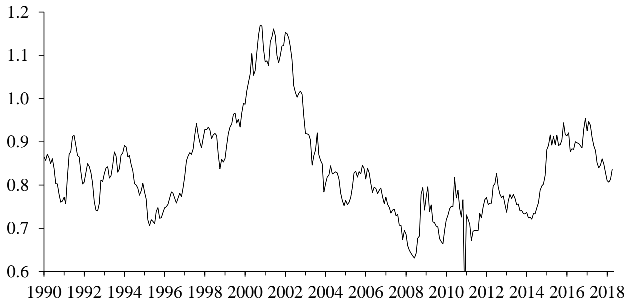
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

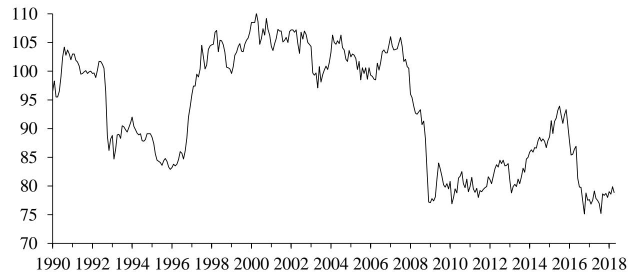
Table 3: Portfolio(%)

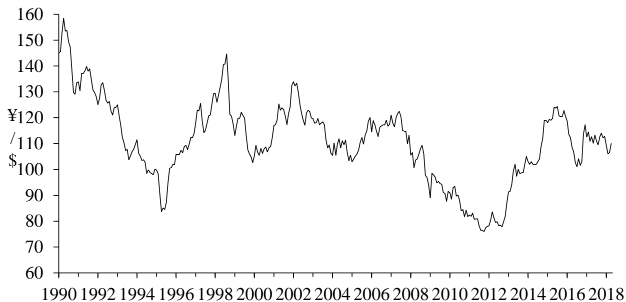
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	April Letter	Current View	APril Letter	Current View	APril Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-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

INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS





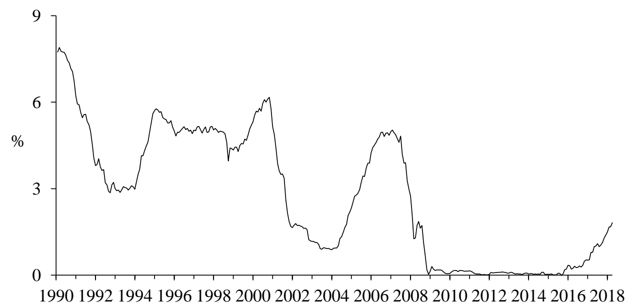




GOVERNMENT BOND MARKETS

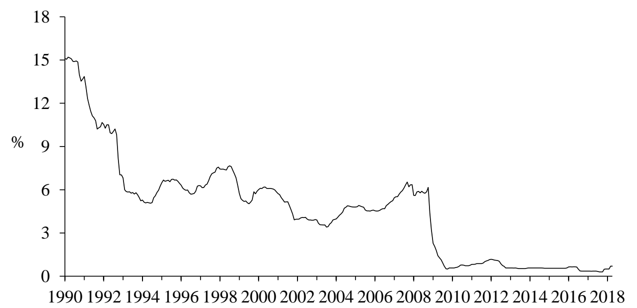
U.S.: Yield on Long-Term Government Bonds

U.S. : 3-Month Treasury Bill

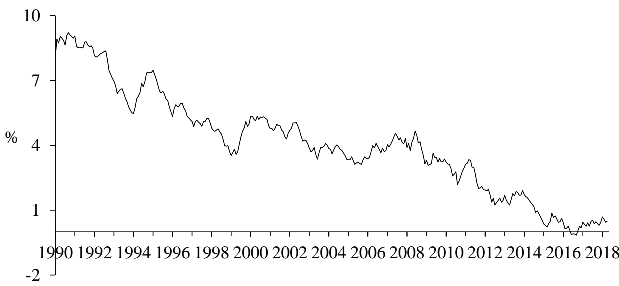


U.K.: Yield on Long-Term Government Bonds

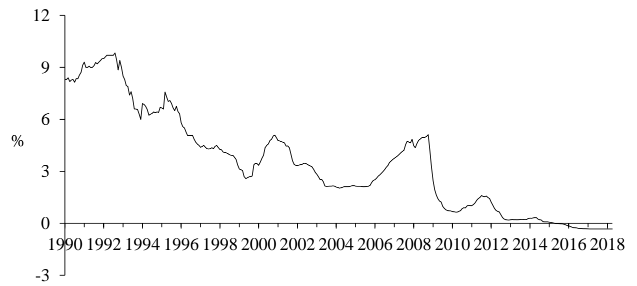
U.K. : 3-Month Certificate of Deposit Rate



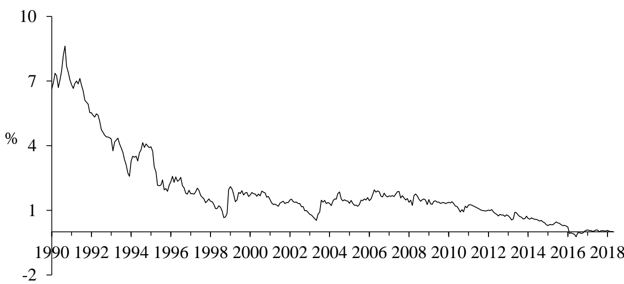
Germany: Yield on Public Authority Bonds



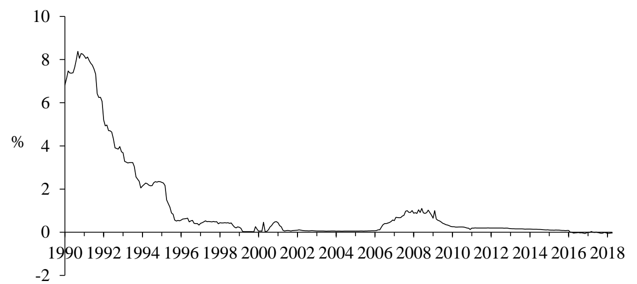
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

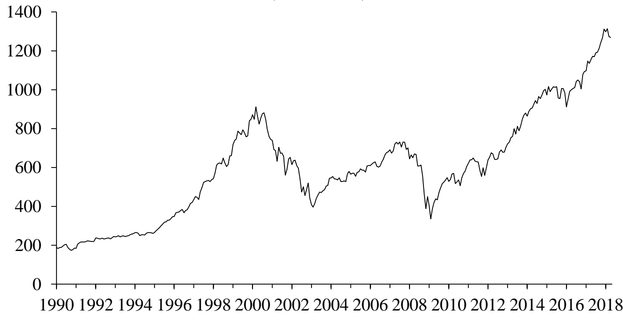


Japan : 3-Month Money Market Rate

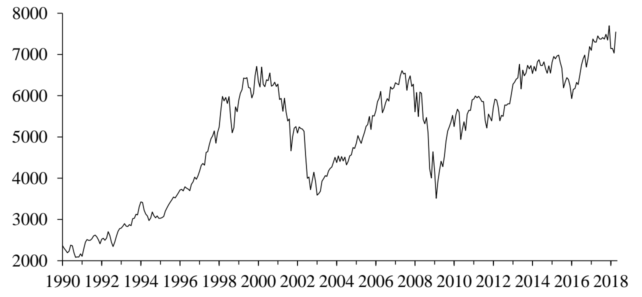


MAJOR EQUITY MARKETS

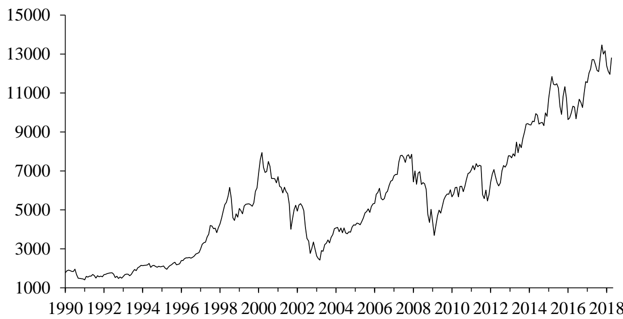
U.S. : S & P 400 Industrial
(1985=100)



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's GDP growth rests on the level of monsoon rains and the price of crude oil. Forecast of a normal monsoon this year and easing of global geopolitical tensions are the key tailwinds which are going to push the economy this year. But, a US$10 increase in oil prices can shave off growth by about 10 bps, increase inflation by 10 bps and worsen current account deficit by 40 basis points. The crude oil price is going to decide whether the economy would grow more than 7.5% in 2018–19 or not. We are going to maintain our forecast of 7.6% for fiscal year 2018–19 and 8.1% for 2019–20. India's economy grew 7.2% in the fourth quarter of 2017, its fastest pace in more than a year, but private investment is still relatively weak.

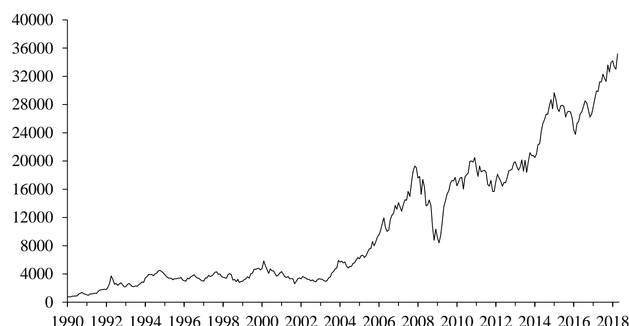
The buoyancy in the indirect tax collections could be taken as a reflection of optimism in the economy. In the month of April, the Goods and Services Tax collection was Rs 1.03 trillion which exceeded the Rs 899 billion average monthly collections for the first eight months after the GST was introduced.

Retail inflation moderated in March as vegetable prices eased further on fresh supplies. However, core inflation, which strips out the impact of food and fuel prices, continued to be 4.1% compared to 4.4% in February and 5.07% in January.

In the first two months of 2018, exports grew by over 9% but turned negative in March. Imports grew 10.8% in February 2018, widening the current account deficit to 2% of gross domestic product which is just about sustainable. This has resulted in making the rupee the worst-performing currency in Asia this year.

The RBI's foreign exchange reserves came down by $2.5 billion to $423 billion in the week ended April 20. This is the result of the RBI's direct intervention. The RBI will have to continue doing intervention in the market to prevent a rapid slide in rupee.

The rupee has weakened by more than 5% against the dollar from the 2018 highs of 63.4 to 66.66. It is likely to weaken further as the dollar has been strengthening against major global currencies. India has joined the club of China, Japan, South Korea, Germany and Switzerland whose currency is monitored by the US under its Trade Facilitation and Trade



Enforcement Act of 2015. As India does not have a current account surplus, it does not have to worry about it but it has a trade surplus with the US of more than $20 billion and it has net purchases of foreign currency over a 12-month period of more than 2% of its GDP.

One of the positive consequences of demonetization has been the rise in the stock market. A flood of domestic cash boosted the country's market capitalization by 50% last year and has crowded out foreign investors for the first time in decades. The country's largest retirement fund has tripled its investments in Indian equities — from 5% of incremental flows two years ago to 15% today, with plans to gradually tick up those investments to 25%. Domestic investors have poured more than $14 billion in Indian stocks through mutual funds in 2017, compared with around $8 billion by foreign investors. The positive cash flow into stock market is likely to continue as other assets such as real estate and gold are in bear hug.

Chinese President Xi Jinping and Indian Prime Minister Narendra Modi met last month for talks to ensure that there is regional calm. The meeting was an unusual display of personal diplomacy, with the two men meeting without aides for a significant part of the time.

Peace with their neighbour would allow Mr. Xi to devote more energy toward domestic ambitions in fighting poverty and revitalizing the economy which is under threat from trade sanctions and Mr. Modi will be able to concentrate on the national election due in May 2019 and he would be contending for his party to win majority in parliament.

	16–17	**17–18**	**18–19**	**19–20**	**20-21**
GDP (%p.a.)	7.1	6.5	7.6	8.1	8.2
WPI (%p.a.)	4.5	3.5	4.5	4.6	4.2
Current A/c(US$ bill.)	-24.0	-26.0	-36.0	-44.0	-46.0
Rs./$(nom.)	68.2	65.0	65.5	65.5	66.5

China

China's economy expanded 6.8% in the first quarter of 2018 but it is likely to slow during the rest of the year because of tighter monetary financial policies. Chinese factories, in particular, are producing fewer goods for foreign markets. We maintain our forecast of 6.5% growth in 2018, as Xi's financial risk campaign gains further traction. The manufacturing sector as a whole held up in April but its sub-index tracking new export orders declined. The Caixin Media Co. and Markit Economics Ltd. reading for booked shipments dropped to the weakest level since June 2016. In the first quarter robust property investment and resilient consumer demand helped the economy to perk up. There is a tug-of-war between struggling old industries from mining to textiles, and booming new-economy sectors including e-commerce and health care. Consumption contributed 77.8% to the quarterly expansion, slightly up from a year earlier.

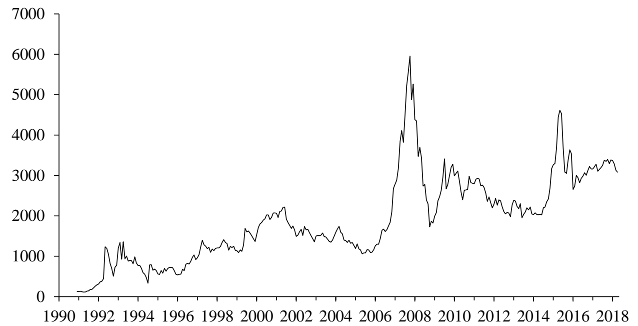
China's inflation cooled to 2.1% in March from a year earlier, compared with a 2.9% gain in February. Growth in food and non-food prices weakened after the Lunar New Year holidays. The producer price index (PPI) rose 3.1% in March from a year earlier, compared with 3.7% in February. As China's factory-gate inflation has slowed for five months in a row, its impact will be seen on the economy in the coming months. With export growth waning, the government had a slight tilt toward supporting growth — including a cut in the reserve requirement ratio and allowing the yuan to creep lower.

China's central bank formally adopted far-reaching rules to rein in risky lending in the financial system, though regulators are giving banks and asset managers longer than expected to comply. The rules require financial institutions to set aside more capital for loans repackaged as investments and closes off regulatory loopholes that banks used to collaborate with nonbank, or "shadow" lenders and move loans off-the-books.

In the first quarter, China's total exports rose 14.1% from a year earlier, while imports climbed 18.9%. China's trade surplus with the U.S. reached $58.25 billion in the first quarter, up 19.4% compared with the same period a year ago. The rise in the surplus with the U.S. contrasted with China's overall trade surplus, which decreased nearly 20% from a year ago to $48.39 billion in the first quarter.

The central parity rate of the Chinese currency renminbi, or the yuan, weakened to 6.367 against the U.S. dollar. In China's spot foreign exchange market, the renminbi is allowed to rise or fall by 2% from the central parity rate each trading day. So far this year, the renminbi has risen 3.2% against the dollar following a 6.8% increase in 2017. However, the renminbi has been mostly steady against its trade-weighted index for most of this year. A deliberate weakening of the renminbi is unlikely as it would give Washington an opportunity to label China a currency manipulator and to justify trade sanctions.

China: SSE Composite Index



The U.S. Treasury refrained from designating China a currency manipulator, though it faulted Beijing for doing too little to open its economy and retained China on a formal monitoring. The reason for restraint is that China hasn't intervened significantly in its currency markets in recent quarters, one of the key criteria in the report for meeting the threshold of manipulation.

The threat of a trade war between the world's two largest economies has unsettled global markets. U.S. Commerce Secretary, Wilbur Ross, who is part of the delegation visiting China in the first week of May, has softened expectations of any major breakthrough from U.S. and China. It is widely believed that Mr. Trump's deal-making persona will eventually lead to an agreement, particularly since Chinese retaliation would target U.S. farmers, an influential part of the Republican Party's base.

China has announced that it would not accept any U.S. preconditions for negotiations such as abandoning its long-term advanced manufacturing ambitions or narrowing the trade gap by $100 billion. It is unlikely that China will water down its 'Made in China 2025' plan to dominate high-tech industries which include robotics, aerospace and computer chips. But, in the last few weeks China has opened up financial sector of its economy. It has cut 25% tariff on foreign vehicles; eased the quota on the number of imported films which are shown in China on a revenue-sharing basis; buy more U.S. goods to help cut the vast U.S. trade deficit; and offered to negotiate a U.S-China free-trade deal, which could cover many structural issues and be enforced by trade sanctions.

Now, what China will not do? It won't prop up the value of the renminbi to help U.S. exports. China believes that the U.S. forced Japan to do that in the 1980s and 1990s, which hurt the Japanese economy significantly.

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	6.5	6.9	6.5	6.0	5.6
Inflation (%p.a.)	2.0	2.2	1.5	2.0	2.2
Trade Balance(US$ bill.)	510	400	380	350	300
Rmb/$(nom.)	6.7	6.6	6.3	6.4	6.4

South Korea

South Korea's gross domestic product grew 2.8% year on year in the first quarter of 2018, bolstered by government spending. We expect the current growth trend to continue to meet the growth forecast of 3% in 2018, though uncertainties remain during the rest of this year. With world trade continuing to grow in 2019, we expect South Korea's GDP to grow 2.8% in 2019. Employment growth on the yearly basis hovered below 200,000 for the first two months of this year, casting a doubt over the labour market and consumer spending. Fiscal spending advanced 2.5% in the first quarter, logging the fastest expansion in 24 quarters since the first quarter of 2012.

Consumer inflation touched a six-month high in April as growth in food and transport costs became dearer. The country's consumer price index rose 1.6% year on year, up from 1.3% in March. Inflation may touch the Bank of Korea's target rate of 2% in 2019.

During the January–April period, exports reached a new record high of 195.5 billion dollars on demand for semiconductors, chemicals and machinery equipment. It was up 6.9% from the same period of last year. Imports gained 14.5% over the year to 43.5 billion dollars in April on demand for natural gas and general machinery, sending the trade surplus to 6.6 billion dollars. The trade balance stayed in black for 75 months in a row.

The won is strengthening a bit as geopolitical risk eases.

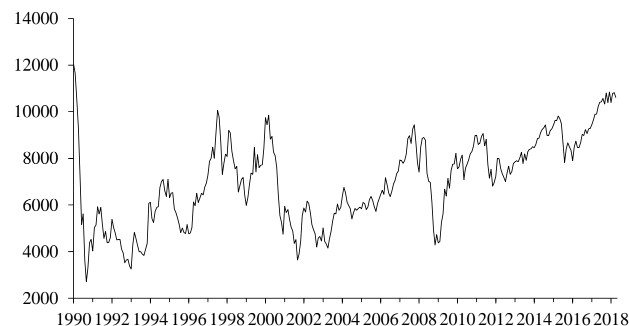
The most noteworthy development in the Korean peninsula was meeting of North Korean leader Kim Jong Un and South Korean president Moon Jae-in. It was the first inter-Korean summit in over a decade, a meeting aimed at ending decades of conflict leading to the denuclearization of North Korea. The outcome of their meeting is set to determine the future of the Korean Peninsula and lay the groundwork for Mr. Kim's planned summit with President Donald Trump, going to be held by the end of May or early June.

The positive signal post Kim and Moon meeting is that Mr. Kim has announced that he is suspending nuclear and missile tests, but he hinted that he didn't intend to abandon his nuclear deterrent. Unification of the two Koreas, which was widely seen as a more remote prospect, is on the table but it is viewed with trepidation. Some South Koreans are concerned that Mr. Moon's lifelong commitment to achieving a breakthrough with North Korea could lead him to give away too much and risk South Korea's economic and physical security.

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	2.8	3.2	3.0	2.8	2.6
Inflation (%p.a.)	1.0	1.9	1.7	2.0	1.9
Current A/c(US$ bill.)	88.0	88.0	86.0	80.0	78.0
Won/$(nom.)	1160	1100	1050	1040	1050

Korea: Composite Index

Taiwan: Weighted TAIEX Price Index



Taiwan

Taiwan's GDP grew 3% year over year in the first quarter of 2018, led by private and government consumption. Fixed investment growth remained soft as the threat of a trade war is keeping the investors wary of adding more capacity. As the global economy is growing at the healthy pace, we have kept our GDP growth forecast for 2018 to be 2.5% and revised upward growth rate for 2019. Government final consumption also grew more than 6% year over year in the first quarter of 2018.

The consumer price index for 2018 is expected to rise 1.5% in 2018 as commodity prices in the international market have been on the rise. In March, consumer prices climbed 1.57% year-on-year in March, slower than the 2.19% increase seen in February.

Taiwan's foreign trade surplus increased in March from a year ago, as exports grew much faster than imports. The trade surplus climbed to $6 billion in March from $3.97 billion in the corresponding month last year. Exports registered a double-digit growth of 16.7% year-over-year in March. Imports rose 10.4% in March from a year earlier. Trade growth has remained firm as the global economic backdrop remained supportive of healthy aggregate demand from abroad. As the IMF expects overall world trade volume to grow 5.1% in 2018, the Taiwanese economy will benefit from it. However, any trade war between China and the United States will hurt China's parts suppliers — Taiwan, Malaysia, South Korea and Singapore — more than China itself.

Taiwan's existence crisis resurfaced as the Dominican Republic broke diplomatic ties with Taiwan and established ties with Beijing. The number of governments recognizing Taipei has dropped to 19 and it is part of a tactic dating to China's and Taiwan's split seven decades ago in a civil war. Beijing stopped wooing Taiwan's diplomatic partners for several years as political relations between the governments were warmed. It resumed its efforts after the election of Taiwanese President Tsai Ing-wen in 2016 because Ms. Tsai refused to acknowledge a principle that China and self-ruled Taiwan are part of "One China."

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	1.4	2.6	2.5	2.5	2.3
Inflation (%p.a.)	1.0	0.6	1.5	1.3	1.2
Current A/c(US$ bill.)	64.0	68.0	68.0	70.0	71.0
NT$/$(nom.)	32.5	32.0	29.6	30.0	30.5

Brazil

Brazil's GDP growth in 2018 will remain lukewarm even though the central bank hopes economic growth to touch 2.75% and 3% in 2019. Given the uncertainty around the presidential election due in October, we are not hopeful of a recovery in 2019 either. For 2018 and 2019 we expect GDP growth to be 2.5%. However, this is more optimistic than the recent IMF forecast published in the World Economic Outlook where IMF has projected a growth rate of 2.3%. Projections for Brazil's debt-to-GDP ratio remained stable at 55% for 2018 and 57% in 2019.

Even though there is some risk of policy reversals in Brazil, we do not expect the central bank to loosen its grip on monetary aggregates. For 2018, we have kept our forecast unchanged at 3.8%. For 2019 also, the forecast is maintained at 4.2%.

Brazil's Selic has fallen sharply in recent years — and is still expected to go lower in the May 16th central bank's Monetary Policy Committee (Copom) meeting — in response to very low local inflation.

The Brazilian trade surplus dropped 12% in March from a year before to US$ 6.3 billion as imports rose and exports remained virtually unchanged. Brazil exports may be benefitted if China imposes import tariffs on soybean and other agricultural commodities imported from the US.

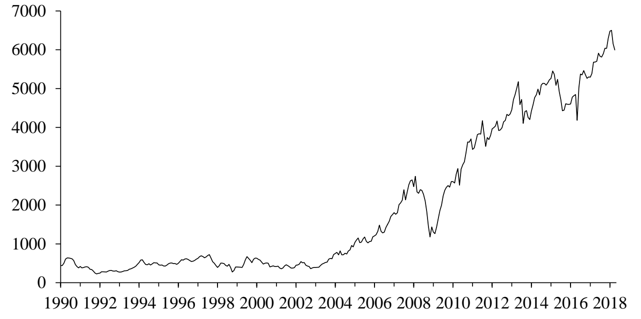
In the last two years, the narrowing of interest differential between the US and Brazil, caused by repeated cuts in the Selic and rate hikes by the Federal Reserve, has weakened the attractiveness of carry-trade operations. This has led to depreciation of the Brazilian real. It has fallen by 5% against the dollar in the past month and may depreciate further.

	16	**17**	**18**	**19**	**20**
GDP (%p.a.)	-3.5	1.0	2.5	2.5	3.0
Inflation (%p.a.)	6.3	3.0	3.8	4.2	4.2
Current A/c(US$ bill.)	-28.0	-4.0	-5.2	-8.0	-8.5
Real/$(nom.)	3.5	3.2	3.3	3.4	3.4

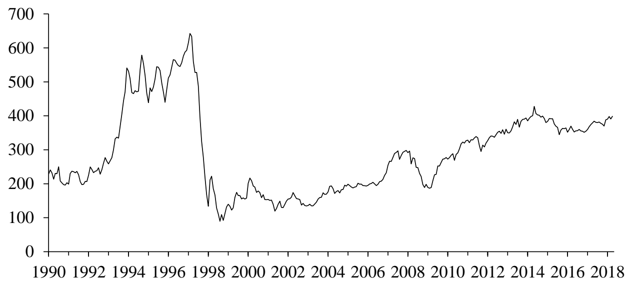
Other Emerging Markets

Hong Kong: FT-Actuaries

Indonesia: Jakarta Composite

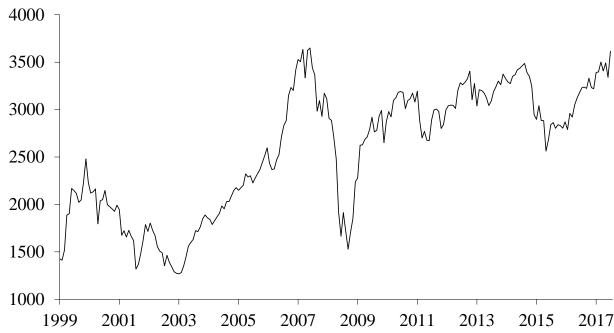


Malaysia: FT-Actuaries (US$ Index)



Thailand: Composite Index

Singapore: Straits Times Index



Philippines: Manila Composite

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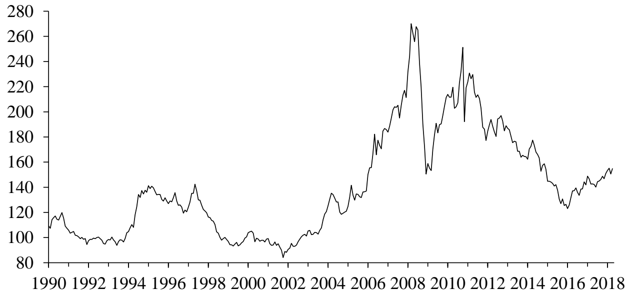
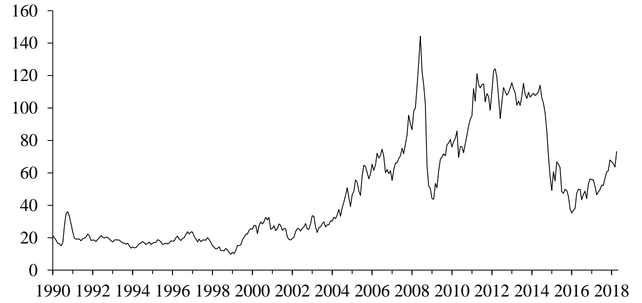
COMMODITY MARKETS

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

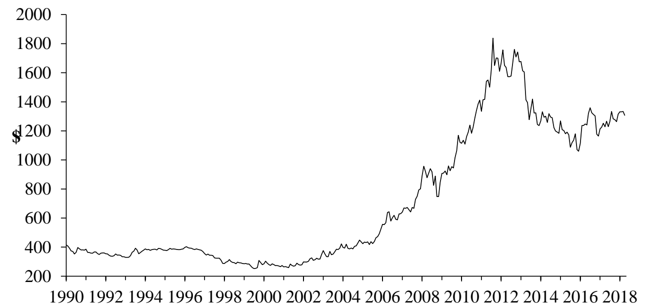


Oil Price: North Sea Brent (in Dollars)

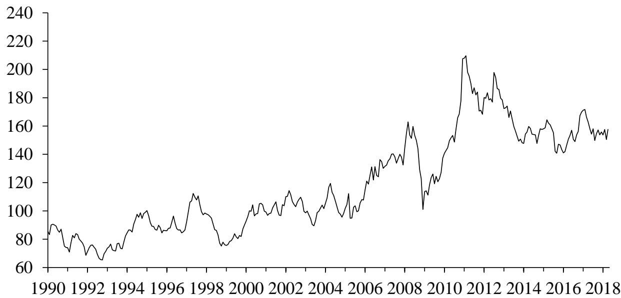


Commodity Price Index (Sterling)
(Economist, 2000=100)

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]
2016	1.1	0.7	0.5	82.1	80.6	-1.0	1.9	-1.7
2017	2.6	1.1	0.4	77.1	74.9	-2.0	3.3	-1.4
2018	2.5	1.4	0.6	76.4	75.0	-1.5	3.1	-1.0
2019	2.1	2.5	1.2	75.6	74.5	-0.9	2.8	0.2
2020	2.0	3.5	2.4	74.1	73.1	0.2	2.7	1.2
2021	2.1	2.9	3.1	73.0	72.4	0.2	2.8	0.5
2017:1	1.9	0.6	0.3	76.8	73.9	-2.1	3.3	-0.3
2017:2	2.6	1.2	0.4	77.3	75.3	-2.0	3.2	-1.1
2017:3	2.8	1.2	0.4	77.2	75.3	-2.0	3.3	-0.5
2017:4	2.9	1.2	0.5	76.9	75.3	-1.9	3.4	-0.4
2018:1	2.6	1.3	0.5	77.1	75.3	-1.5	3.1	-0.3
2018:2	2.5	1.5	0.6	76.6	75.2	-1.5	3.1	0.6
2018:3	2.5	1.5	0.6	75.7	74.2	-1.4	3.1	-0.1
2018:4	2.5	1.5	0.7	76.1	75.2	-1.4	3.1	0.4
2019:1	2.1	2.5	0.8	76.6	75.2	-1.3	2.8	-0.5
2019:2	2.1	2.5	0.8	75.5	74.3	-1.2	2.8	-0.4
2019:3	2.1	2.5	1.1	75.3	74.2	-1.0	2.8	-0.4
2019:4	2.1	2.5	1.8	75.1	74.3	-0.2	2.8	-0.1

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)
2016	253.2	2.4	2.2	0.8	142.9
2017	257.8	2.0	2.2	0.8	142.1
2018	263.9	2.3	2.1	0.8	141.7
2019	268.7	1.8	2.0	0.7	141.2
2020	273.2	1.7	1.9	0.7	140.6
2021	281.4	3.0	1.6	0.6	141.9
2017:1	255.8	2.4	2.1	0.8	143.9
2017:2	256.3	1.7	2.2	0.8	141.2
2017:3	259.8	2.1	2.2	0.8	142.3
2017:4	259.5	2.0	2.2	0.8	141.1
2018:1	261.2	2.1	2.1	0.8	142.9
2018:2	262.8	2.6	2.1	0.8	141.1
2018:3	265.6	2.2	2.1	0.8	141.7
2018:4	266.2	2.6	2.0	0.7	141.0
2019:1	265.3	1.6	2.0	0.7	142.1
2019:2	268.5	2.1	2.0	0.7	141.1
2019:3	270.0	1.7	2.0	0.7	141.1
2019:4	271.1	1.9	1.9	0.7	140.6

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as 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
2016	159.4	763130.9	440238.4	292912.0	198473.7	-55145.2	113348.0
2017	162.8	779568.4	447220.8	297451.9	199478.8	-49716.2	115424.6
2018	165.9	794590.2	455625.1	299857.2	200245.3	-43280.0	117858.2
2019	169.0	809541.5	465605.1	303926.7	200695.7	-40400.3	120284.1
2020	172.3	825206.6	476269.2	305305.4	201423.9	-34950.6	122842.0
2021	176.1	843441.4	485909.2	309134.3	202752.9	-28559.5	125795.9
2017/16	2.2		1.6	1.6	0.5		2.0
2018/17	2.0		1.9	1.0	0.4		2.1
2019/18	1.9		2.2	1.4	0.2		2.1
2020/19	1.9		2.3	0.5	0.4		2.1
2021/20	2.2		2.0	1.3	0.7		2.4
2022/21	2.3		2.0	2.7	-0.4		2.4
2017:1	161.6	193453.0	111073.9	73556.2	51435.0	-14278.1	28888.6
2017:2	162.3	194338.3	111485.4	73924.4	49462.3	-11901.3	28633.8
2017:3	163.3	195457.5	111947.0	74780.4	49336.1	-11847.1	28760.0
2017:4	164.0	196319.7	112714.5	75190.9	49245.4	-11689.6	29142.1
2018:1	164.8	197254.3	112852.8	74349.1	50854.4	-11513.1	29289.0
2018:2	165.6	198214.1	113552.8	74664.3	49963.7	-10595.0	29371.9
2018:3	166.4	199176.7	114256.6	74949.1	49779.7	-10289.0	29520.2
2018:4	167.0	199945.0	114962.8	75894.7	49647.5	-10882.9	29677.2
2019:1	167.8	200919.0	115328.3	75359.1	50223.8	-10152.1	29839.5
2019:2	168.6	201889.2	116041.1	75576.5	50207.6	-9947.7	29987.7
2019:3	169.4	202869.6	116756.5	75564.6	50155.0	-9460.6	30145.5
2019:4	170.3	203863.7	117479.2	77426.5	50109.3	-10840.0	30311.4

[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)
2016	2.3	1960.1	45.1	58.7	-87.4
2017	2.0	2040.6	40.1	61.5	-65.6
2018	1.6	2132.8	33.4	63.8	-54.3
2019	1.1	2221.1	24.2	67.6	-49.4
2020	0.3	2312.7	6.6	65.2	-39.0
2021	-0.3	2419.2	-6.6	62.0	-26.4
2017:1	-3.0	493.2	-14.6	15.0	-17.5
2017:2	2.4	501.6	12.0	15.2	-18.9
2017:3	1.6	507.5	8.4	15.3	-17.7
2017:4	1.4	514.1	7.4	15.5	-11.5
2018:1	2.4	517.7	12.4	15.5	-12.3
2018:2	1.8	525.4	9.6	15.7	-16.8
2018:3	1.6	531.2	8.4	15.9	-15.2
2018:4	1.3	537.5	7.3	16.0	-10.0
2019:1	1.5	539.1	8.0	16.3	-9.8
2019:2	1.3	547.1	7.0	16.4	-15.8
2019:3	1.1	553.1	6.2	16.7	-13.7
2019:4	1.0	560.1	5.6	17.2	-10.1

[1] GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2014	2015	2016	2017	2018	2019
U.S.A.	2.6	2.9	1.5	2.2	2.7	2.4
U.K.	2.9	2.2	1.8	2.2	2.0	1.9
Japan	0.3	1.4	0.9	1.6	1.4	1.1
Germany	1.9	1.7	1.9	1.9	2.3	1.8
France	1.0	1.0	1.1	1.6	1.9	1.7
Italy	0.1	1.0	0.9	1.3	1.4	1.1

Real Short-Term Interest Rates

	2014	2015	2016	2017	2018	2019
U.S.A.	–0.1	–1.1	–1.5	–0.9	–0.3	0.5
U.K.	–2.2	-0.5	–1.0	–2.0	–1.5	–0.9
Japan	–0.6	0.1	–0.4	–0.8	–1.0	–1.1
Germany	–0.2	–0.6	–2.0	–2.0	–2.0	–2.1
France	0.1	–0.2	–1.3	–1.6	–1.7	–2.1
Italy	0.0	0.0	–1.7	–1.4	–1.6	–2.1

Real Long-Term Interest Rates

	2014	2015	2016	2017	2018	2019
U.S.A.	0.7	0.3	0.5	0.8	1.0	1.5
U.K.	–0.7	–1.0	–1.7	–1.4	–1.0	0.2
Japan	–0.4	–0.5	–1.0	–1.1	–1.3	–1.5
Germany	–0.7	–0.9	–1.7	–1.4	–1.4	–1.1
France	0.0	–0.7	–0.9	–0.9	–0.8	–0.6
Italy	1.1	0.4	0.1	0.3	0.4	0.6

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

	2014	2015	2016	2017	2018	2019
U.S.A.	83.9	93.0	94.0	94.5	94.8	95.0
U.K.	93.1	91.6	80.6	74.9	75.0	74.5
Japan	59.8	56.0	58.4	58.3	58.1	58.4
Germany	99.9	94.7	95.0	94.3	94.9	95.1
France	100.8	96.2	96.0	95.3	95.1	95.5
Italy	107.5	102.1	102.0	101.2	101.1	101.1

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

Growth Of Consumer Prices

	2014	2015	2016	2017	2018	2019
U.S.A.	1.6	0.1	1.3	2.0	2.1	2.1
U.K.	1.7	0.2	1.1	2.6	2.5	2.1
Japan	2.8	0.8	0.1	0.5	0.9	1.1
Germany	0.9	0.3	0.5	1.7	1.7	1.8
France	0.5	0.0	0.1	1.0	1.3	1.5
Italy	0.2	0.1	–0.1	1.4	1.1	1.4

Nominal Short-Term Interest Rates

	2014	2015	2016	2017	2018	2019
U.S.A.	0.0	0.2	0.5	1.2	1.8	2.5
U.K.	0.6	0.6	0.5	0.4	0.6	1.2
Japan	0.2	0.2	0.1	0.1	0.1	0.1
Germany	0.1	–0.1	–0.3	–0.3	–0.2	–0.1
France	0.1	–0.1	–0.3	–0.3	–0.2	–0.1
Italy	0.1	–0.1	–0.3	–0.3	–0.2	–0.1

Nominal Long-Term Interest Rates

	2014	2015	2016	2017	2018	2019
U.S.A.	2.2	2.2	2.5	2.8	3.0	3.5
U.K.	1.8	1.3	0.7	1.1	1.4	2.5
Japan	0.3	0.3	0.0	0.1	0.1	0.1
Germany	0.5	0.6	0.1	0.5	0.6	0.9
France	0.8	0.5	0.7	0.9	1.1	1.4
Italy	1.9	1.6	1.7	2.0	2.3	2.6

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

	2014	2015	2016	2017	2018	2019
U.S.A.[1]	89.04	103.08	101.91	102.20	102.40	102.50
U.K.	1.65	1.53	1.35	1.30	1.29	1.28
Japan	106.67	121.11	108.61	112.18	114.10	114.30
Eurozone	0.76	0.90	0.90	0.88	0.85	0.86

[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