

# LIVERPOOL INVESTMENT LETTER

April 2018



Cardiff Business School  

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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.

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# THE STRANGE WORLD CREATED BY QUANTITATIVE EASING

Few people seem to have grasped the extraordinary nature of QE. One way to approach it is to measure the amount of government money that has been ‘printed’ since before the financial crisis. The Bank of England ‘prints money’ by buying assets from the market, usually UK government bonds, also foreign assets for the reserves. The total of these, the BoE ‘balance sheet’, rose from around £50 billion in 2006 to around £500 billion in 2017, a multiple of 10. So money printed has grown by 900% in that period — an increase totally unprecedented in all our history.

The usual result of the government printing money is that banks increase credit and so deposits in proportion, so expanding the sum of money and bank deposits (the ‘broad money supply’) in line. However, since 2006 total money supply has limped along, just about growing into upper single figures by the time of the recovery from crisis.

For this to happen something stopped banks expanding credit. This was of course massive and draconian regulation of banks ‘to ensure no repeat crisis’. This new regulative framework made extending credit expensive for banks, mainly by insisting that they raise equity capital in a large multiple of ‘risky’ credit. But banks found raising such capital to be highly expensive (for example Barclays, which did so in order to avoid being partially taken over by the UK government, seems to have paid heavily for it to the Middle East sources it went to); and so they contracted their lending instead.

So the result of this huge money printing was simply that the banks held the extra money as bank reserves without lending it out. Meanwhile the BoE has lent this huge amount of money it printed to the government: this amounted to one third of all government debt, around 25% of GDP, over the crisis period. Nearly two thirds of the deficits run by the government since the crisis began have been financed by printing money. The rate the government has had to pay on its debt has fallen dramatically as the BoE has ramped up demand for it. Today the yield on government long term borrowing is still around 1%, below the rate of inflation of 2% plus — a negative real return, in which governments are effectively being paid to borrow!

Meanwhile, smaller private borrowers who could not get access to bank credit were having to pay much higher rates. The only credit available was on ‘riskless’ lending such as mortgages or car loans where the banks did not need to get hold of extra capital.

Also savers who relied on investing in government bonds or pensions invested in government bonds got negative real returns.

As for their pensions, if these were related to final salaries (‘defined benefit’), these became ‘insolvent’ according to

**Table 1: Summary of Forecast**

	2016	2017	2018	2019	2020	2021	2022
GDP Growth <sup>1</sup>	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.) <sup>2</sup>	0.8	0.8	0.8	0.7	0.7	0.6	0.5
Exchange Rate <sup>3</sup>	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

<sup>1</sup>Expenditure estimate at factor cost

<sup>2</sup>U.K. Wholly unemployed excluding school leavers (new basis)

<sup>3</sup>Sterling effective exchange rate, Bank of England Index (2005 = 100)

the standard regulative valuation formula which assumes that they invest solely in government bonds. A swathe of company pensions have been declared in deficit; and notoriously the Universities Superannuation Scheme with them. Meanwhile, returns on pensions generally are reduced, since they must to a large extent invest in government bonds to ensure ability to pay out to their pensioners.

Who has done well out of QE? Plainly the government first and foremost. Then any savers who could invest in equities have driven up equity prices as interest rates have fallen making investment in bonds unattractive; this has benefited large companies funded by equities.

Summarising, QE and the accompanying crisis regulation has transferred resources to the government and large corporates away from savers and smaller businesses. This has meant savings are not being channelled to the best uses; competition from small business for dominant large business has been muted; large businesses which should contract or be broken up are being kept alive by cheap money; pensions are in crisis.

The BoE is reluctant to reverse QE because this would raise interest rates and be contractionary on demand. Yet it is plain that there are huge monetary imbalances (‘distortions’) created by QE.

The answer to the BoE’s dilemma is that simultaneously bank regulation must be loosened. Thanks to President Trump there are moves internationally to do this. The BoE is resisting this; but it should think again. There are other ways of ensuring the safety of the banking system, notably by more active support by the BoE itself; this can include both lender of last resort and monitoring of banks without draconian capital requirements.

## A note on Public Debt and QE — the ONS and OBR’s monetary Howler

As we have seen, QE involved a massive buying of government bonds by the BoE with money being printed to pay for it, and winding up as bank reserves. What effectively

this did was to retire government debt and substitute for it money. Debt and money are quite different. If a private person holds government debt they will receive future interest and capital from the government and this piece of paper can be sold on to anyone who will receive this from the government as due payment.

However on money the government owes nothing: notionally the piece of monetary paper, a pound for example, says the BoE on behalf of the government will pay 'a pound (of gold)' to the bearer. However this is an ancient thing from the origins of the Bank and nowadays cannot be enforced. What gives money its value is not any promise of payment from the government but simply the fact that it can be used to buy goods and services. So with money the concern is whether the amount printed is surplus to such needs as people have to buy goods and services: if too much is printed there will be inflation.

Strictly then QE meant that there was less public debt in private hands, and instead more money, with the BoE (part of the public sector) holding the public debt involved. To put numbers on it, at the end of 2016/17 financial year total public debt issued was 80% of GDP; but about a third of this (25% of GDP) was held by the BoE. Hence only 55% of GDP constituted public debt held in private hands. Nevertheless it is usual to look at the public debt issue without QE as the relevant debt for government purposes since we assume that the QE will be reversed, on the grounds that the extra money printed cannot be left indefinitely as bank reserves without a risk of igniting a massive credit

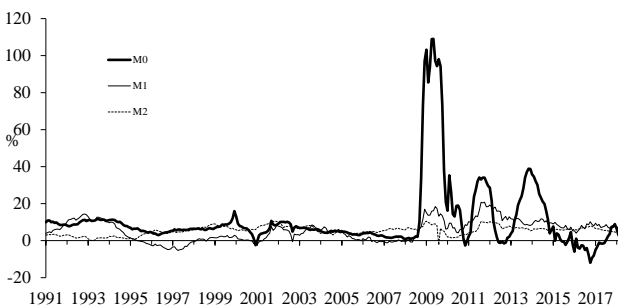
boom and so huge inflation. Hence the figure we would use is 80% of GDP at that time.

The ONS and OBR now make a strange adjustment. It turns out that the latest round of QE involved the 'Term Funding Scheme', worth £192 billion (8% of GDP). This takes the form not of buying government bonds but instead of lending money directly to private companies. The ONS and OBR take the view that these loans are not safe ones like government bonds and so cannot be counted as BoE assets that offset government debt. However, they argue the bank reserves that resulted from the money printed are a debt of the BoE and therefore public debt. So they ADD 8% of GDP to public debt, this being the 'extra' BoE debt due to the Term Funding Scheme.

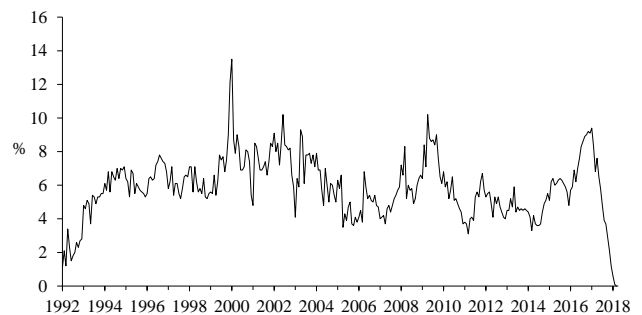
This is pure nonsense because the bank reserves are money not debt. Effectively what the BoE has done is bought Loans to the private sector in place of Loans to the government, and in the long run these private loans can be sold off in exchange for money in just the same way as government bonds. True, their value may change; but so may the value of government bonds. There is no essential difference. It remains the case that public debt (net of private debt held by the government) is 55% of GDP; and that due to QE money is 25% of GDP higher. And that public debt with QE reversed this would be 80% of GDP.

The 88% of GDP 'net public debt' allowing for the Term Funding Scheme is simply a monetary 'Howler' — i.e. a basic misunderstanding.

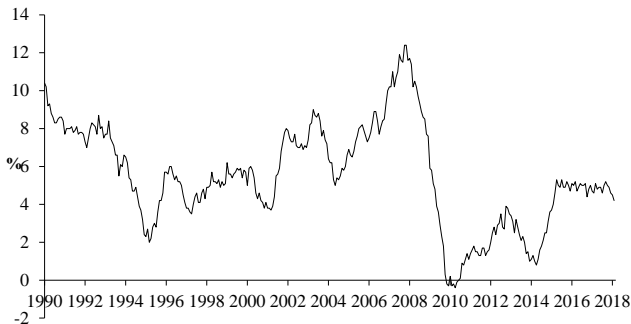
**U.S.: Growth in Monetary Aggregates (Yr - on - Yr)**



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



**Eurozone M3 Growth**



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



## FOCUS ON JAPAN

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Francesco Perugini

### Trump's Trade Policies Clouds Japan's Economy

Last month US President Donald Trump ordered steep new tariffs on steel and aluminium imports to the US, vowing to fight back against an “assault on our country” by foreign competitors. The decision excluded six countries, including Canada and Mexico, and the countries of the EU from higher US import duties, but not Japan. The tariffs are imposed under a rarely used law that allows emergency trade sanctions for “national security.” The import tariffs are framed as a fight to preserve jobs for American steelworkers, who have seen their jobs disappear as a result of automation and globalization, as well as a matter of national security.

Chief Cabinet Secretary Yoshihide Suga told a news conference that Japan's steel and aluminium shipments pose no threat to US national security, while Japanese foreign minister Taro Kono called the decision “extremely regrettable”, predicting it could have a major impact on the economy and the relationship between the US and Japan, as well as the global economy. Mitsuru Okada, chairman of the Japan Aluminium Association echoed them, saying that “We will ask the Japanese government to continue seeking a country exemption from the new US tariffs,” and pointed out that “Japanese steel and aluminium cause no adverse impacts, instead, making a great contribution to American industry and employment”.

The imposition of the import tariffs on aluminium is aimed at protecting the US economy which has been affected by cheap imports. The US plans to ramp up the metal's production capacity, curb imports — nearly 90% of the aluminium demand in the USA is met through imports — revive the industry and provide employment. From 2013 to 2016 the aluminium industry's employment in the USA fell by 58%, 6 smelters were shut down, and only 2 of the remaining 5 smelters are operating at capacity, even though demand has grown considerably. The reasons for the shutdown of these aluminium smelters were due to the financial distress faced by the producers due to lower metal prices, increased Chinese competition and high energy costs. At the same time, the import tariff on steel is aimed to protect the industrial base of the country which the USA government believes has been hurt by cheap steel imports. It is also expected to increase production and consumption of domestic steel and thereby reduce the reliance on imports — nearly 34% of the demand in the USA was met through imports in 2017.

These tariffs are taxes on imported US goods and their imposition will raise prices in the US. That either means that the government gets the revenue from the tax or, if the tariff is set high enough, the goods don't get imported and more expensive domestic goods are sold instead. In either case this

tariff is largely paid for by whoever consumes the goods — the supplier might accept a little less mark-up as well. That ultimate consumer could be US households or businesses. Unfortunately, at this stage it gets more complex because if a tariff raises the price in the US, it effectively lowers the price everywhere else. Goods which might once have been sold in the US are no longer competitive there, so the trade is deflected to other regions. They have the choice of raising their own tariffs, or seeing their own industry undermined. This is one way in which trade disputes can escalate and broaden. The measure may be about protecting employment in one region but it will be at the expense of employment in another region and if other countries use safeguards or countervailing measures — retaliatory protectionism — then quite possibly there is no benefit to anyone, only costs. Willem Buiter, chief economist at Citi, wrote in a note to clients that protectionist trade policies might spark a global trade war, “which could easily trigger a global recession.”

However, at the moment the scope of this protectionism is narrow. Steel and aluminium amount to a very small fraction of US imports: the US has a ¥5.95 billion trade deficit in goods with Japan but only 5% of Japanese steel and iron are exported to the US. Japan ranks sixth behind Canada, the EU, South Korea, Mexico and Brazil as a US supplier of steel imports. According to Dani Rodrik, professor of international political economy at Harvard University's John F. Kennedy School of Government, “Trump's trade measures to date amount to small potatoes. In particular, they pale in comparison to the scale and scope of the protectionist policies of President Ronald Reagan's administration in the 1980s.”

But some observers believe that Japan is a potential target of Trump protectionist policy, and that would possibly hurt the Japanese economy. Trump has made several references on Twitter regarding Japan being a currency manipulator over the last couple of years. The accusation was given a new lease of life in late January when Trump mentioned Japan had “played the devaluation market”, a comment that was quickly rebuffed by Japan's Prime Minister Shinzo Abe.

Such rhetoric from the US president opens up the question as to how exposed Japan is to a more inward-looking US administration. The automobile industry would look particularly vulnerable given Japan's long-standing trade surplus with America in the industry. Furthermore, in 2015, the US represented the largest export market for Japan, accounting for 20% of total exports (or 2.9% of Japanese GDP), a share that has steadily risen over the last five years; and we cannot rule out further possible effects through indirect linkages. Most importantly, the Japanese economy may come under pressure if Trump decides to focus on China, as it seems. Given that China is Japan's second largest export market after the US, with exports accounting

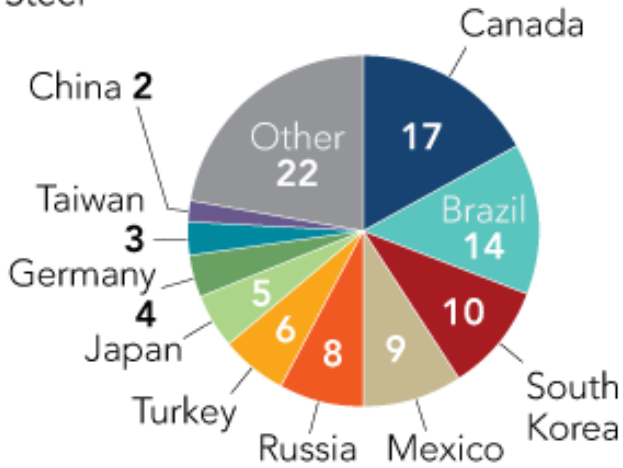
for 2.5% of GDP, a slowdown in China as a result of protectionist measures from Trump would act as a significant headwind to Japanese growth.

Abe is fully aware of the risk protectionism poses to Abenomics in Japan and the wider global economy. Earlier last month he moved swiftly and secured a two-day summit

with Trump to strengthen US and Japanese economic ties. Consensus seems to be that tempers were not frayed between the two world leaders and Abe was able to convince Trump of the Bank of Japan's intentions. The risk of a trade war between the US and Japan may have therefore subsided for now, but given the unpredictable nature of the current US administration, Japan certainly cannot write off the risk of anti-globalization measures.

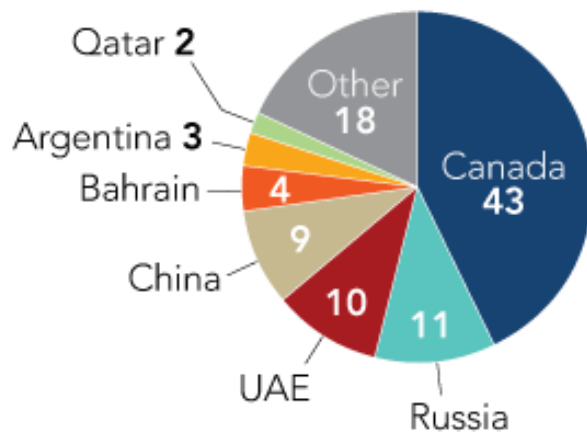
### Main exporters' share in U.S. (in percent)

Steel\*



\*For 2017

Aluminum\*\*



\*\*For January-October 2017

Source: U.S. Department of Commerce

## MARKET DEVELOPMENTS

As monetary policy is tightened around the world and QE starts to be reversed (as in the US already) monetary policy should be rebalanced by looser bank regulation. This is being started by the Trump administration and we expect

other countries to follow. This should avoid any slowdown in the world economy which is currently growing well and underpinning good prospects for equities.

**Table 1: Market Developments**

	Market Levels		Prediction for Feb/Mar 2019	
	Mar 7	Apr 4	Previous Letter	Current View
<b>Share Indices</b>				
UK (FT 100)	7147	7034	9898	9742
US (S&P 500)	2728	2645	3306	3205
Germany (DAX 30)	12114	11958	19200	18953
Japan (Tokyo New)	1716	1706	2128	2116
<b>Bond Yields (government)</b>				
UK	1.51	1.40	1.50	1.50
US	2.90	2.79	3.00	3.00
Germany	0.57	0.44	0.80	0.80
Japan	0.03	0.01	0.10	0.10
UK Index Linked	-1.55	-1.61	-1.00	-1.00
<b>Exchange Rates</b>				
UK (\$ per £)	1.39	1.41	1.30	1.30
UK (trade weighted)	78.57	79.87	76.10	76.10
US (trade weighted)	96.89	96.86	102.4	102.4
Euro per \$	0.81	0.81	0.85	0.85
Euro per £	1.12	1.15	1.11	1.11
Japan (Yen per \$)	106.0	106.5	114.1	114.1
<b>Short Term Interest Rates (3-month deposits)</b>				
UK	0.59	0.78	0.70	0.70
US	2.05	2.29	1.80	1.80
Euro	-0.41	-0.41	-0.20	-0.20
Japan	-0.15	0.10	0.10	0.10

**Table 2: Prospective Yields<sup>1</sup>**

<b>Equities: Contribution to £ yield of:</b>						
	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.60	2.0	2.5	34.00		42.10
US	1.99	2.4	1.9	16.90	7.70	30.89
Germany	3.30	1.9	1.6	55.00	3.15	65.31
Japan	1.90	1.2	0.8	22.00	1.15	27.05
UK indexed <sup>2</sup>	-1.68		2.5	1.00		1.90
Hong Kong <sup>3</sup>	2.60	6.0	1.9	-7.00	7.70	11.20
Malaysia	3.30	5.3	1.9	52.00	7.70	70.20
Singapore	3.50	2.4	1.9	11.00	7.70	26.50
India	1.40	8.1	1.9	28.00	7.70	47.10
Korea	1.10	2.6	1.9	-20.00	7.70	-6.70
Indonesia	2.20	5.3	1.9	29.00	7.70	46.10
Taiwan	2.80	2.3	1.9	15.00	7.70	29.70
Thailand	3.20	3.0	1.9	23.00	7.70	38.80
<b>Bonds: Contribution to £ yield of:</b>						
	Redemption Yield	Changing Nominal Rates	Currency	Total		
UK	1.40	-1.00				0.40
US	2.79	-2.10	7.70			8.39
Germany	0.44	-3.60	3.15			0.35
Japan	0.01	-0.90	1.15			0.26
<b>Deposits: Contribution to £ yield of:</b>						
	Deposit Yield	Currency	Total			
UK	0.78		0.78			
US	2.29	7.70	9.99			
Euro	-0.41	3.15	3.10			
Japan	0.10	1.15	1.25			

<sup>1</sup> Yields in terms of €s or \$s can be computed by adjusting the £-based yields for the expected currency change.

<sup>2</sup> UK index linked bonds All Stocks

<sup>3</sup> Output based on China.



**Table 3: Portfolio(%)**

	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	March Letter	Current View	March Letter	Current View	March 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

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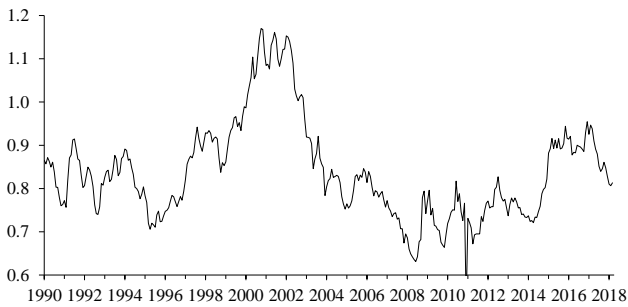
**US : Trade Weighted Index  
(Bank of England 1990 = 100)**



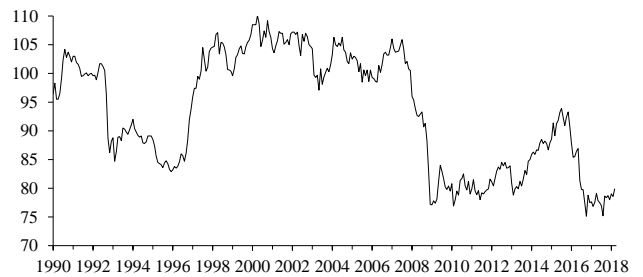
**UK: Dollars Per Pound Sterling**



**Euro per US dollar**



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



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

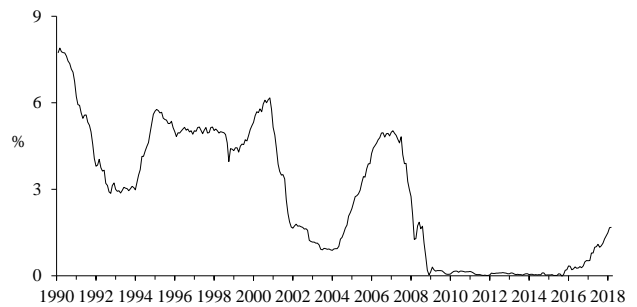


# GOVERNMENT BOND MARKETS

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



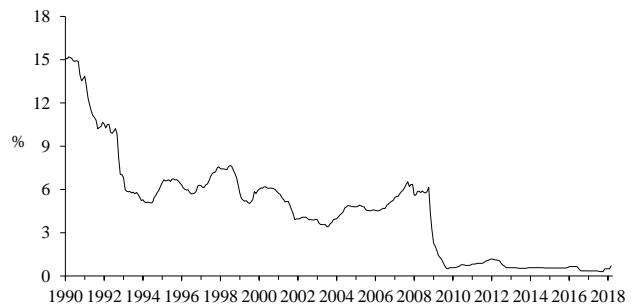
**U.S. : 3-Month Treasury Bill**



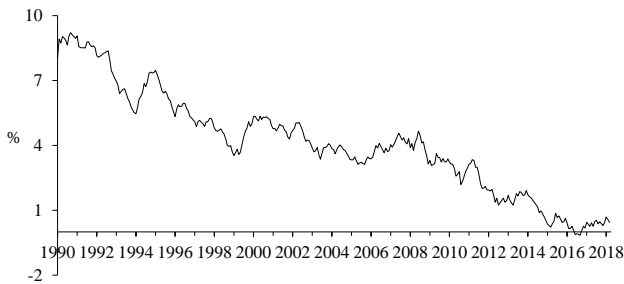
**U.K.: Yield on Long-Term Government Bonds**



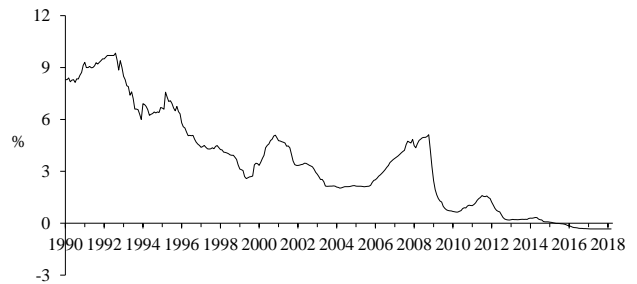
**U.K. : 3-Month Certificate of Deposit Rate**



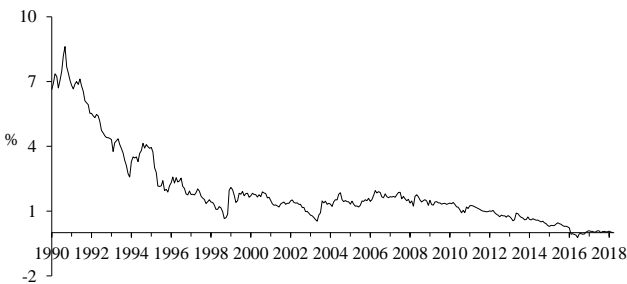
**Germany: Yield on Public Authority Bonds**



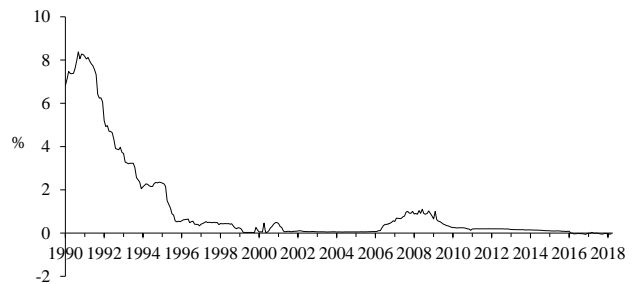
**Germany : 3-Month Interbank Deposit Rate**



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



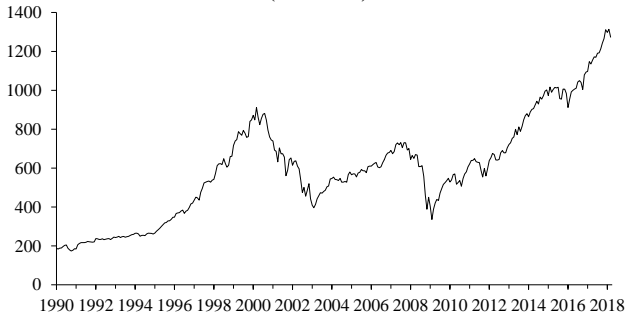
**Japan : 3-Month Money Market Rate**



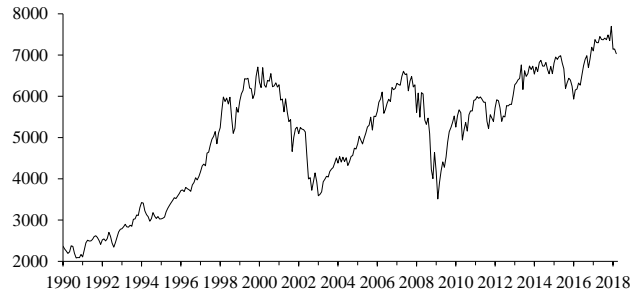
# MAJOR EQUITY MARKETS

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**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

The Indian economy is growing quickly and expected to do better in the coming year. GDP during the third quarter of 2017–18 grew by 7.2%, as the key sectors like agriculture, construction and manufacturing grew well. Private consumption growth has returned to the pre-demonetisation levels. Industrial production rose 7.5% in January, compared to a growth of 7.1% in December.

The monsoon is going to be a normal monsoon, according to a private weather forecast company. And yet, the public is getting restive, the reason being that the formal sector has got a big boost from the demonetization and implementation of GST. But, the informal sector, which largely depended on cash economy, has got marginalized. Employment in this sector has withered.

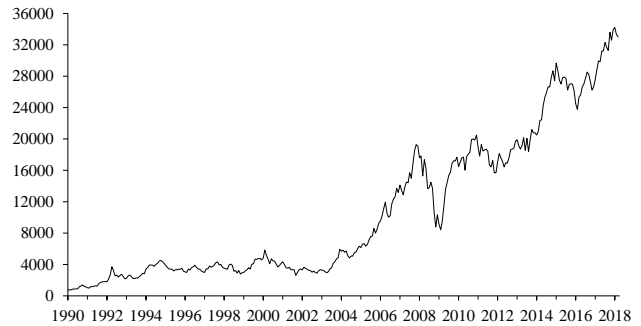
We expect inflation to hover a bit below 4.5% in 2018. Inflation rose 4.44% in February from a year ago, lower than the 5.07% rise in January. The RBI targets inflation over the medium term at 4% with an upper limit of 6% and a lower threshold of 2%. The RBI has kept its policy rate on hold for the time being. RBI will have room to cut interest rate by 25 basis points in the second half, as good monsoon keeps the prices of essential commodities under check.

India’s current account deficit is expected to remain elevated at 1.9% of GDP in FY2018 and around 2.1% of GDP in FY2019, pressurised by elevated crude oil prices due to a rise in the global commodity prices and a recovery in domestic consumption without much scope for commensurate increase in capital flows. The threshold current account deficit (CAD) level for India is around 2.2–2.4% of GDP.

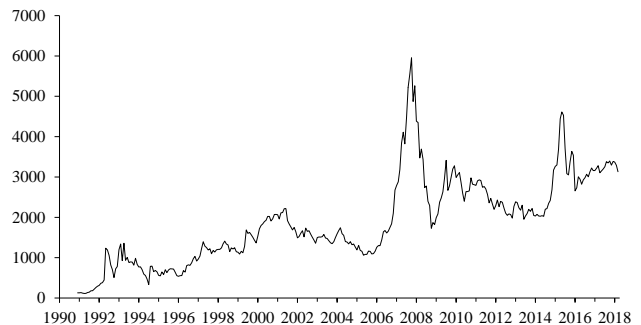
The exports to GDP ratio has plummeted. Since the fourth quarter of 2015 it has stagnated at around 19.5% of GDP, far below the peak of 27.27% of GDP reached in the third quarter of 2013. Given that the Indian economy is relatively close to international trade, the US tariff increase will not hurt India much. India’s FX reserves increased to an all-time high of \$422 billion as of January 2018.

The rupee depreciated 0.48% in the fiscal year ending March 31, 2018, to end at Rs 65.17/\$1 compared with a 2.1% rise in the previous fiscal year. The Indian rupee has been one of the weakest currencies this year. So far, it has fallen in value against every other major currency: by 5% against the euro, 6% against the British pound, 9% against the Japanese yen, and 6% against the Chinese yuan. This vulnerability is happening because capital inflows are struggling to keep pace with the widening CAD. A CAD up to the range of \$50–60 billion dollars can be funded comfortably with a mix

India: BSE Sensitive



China: SSE Composite Index



of foreign direct investment (FDI), foreign portfolio investment (FPI), inflow of non-resident Indian (NRI) deposits, and dollar loans (external commercial borrowings, or ECBs). But slowing capital inflows and suspicions of capital flight imply that India’s CAD may widen to \$75 billion (or 2.6% of the gross domestic product) over the next 12 months.

Political uncertainty is keeping foreign investors on the fence. The stock market gained almost 12% over the year. Yet, there are concerns that the market is now “too expensive”, in spite of a correction of about 10% towards the end of 2017–18. Corporate earnings have continued to underperform expectations. Certainly, the worst of the disruptions are over, and growth has returned to the Indian economy. But there is still too much uncertainty for a revival of private investment.

	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

The Chinese economy is facing headwinds from the US’s protectionist stance. Its impact on the economy is difficult to enumerate as the US is ready to do deals if it is able to achieve its political objective of denuclearisation of North

Korea. China has the ability to deliver that and ensure the implementation of that. On the other hand, the US has the Taiwan card up its sleeve and to provide military aid to South Korea to annoy China.

China announced that it will impose tariffs on 106 products originating from the US such as soybeans, automobiles, and chemical products, in response to tariffs on Chinese imports of steel and aluminium to the US. But, China has refrained from declaring the implementation date. President Donald Trump has instructed the U.S. Trade Representative, Robert Lighthizer, to levy tariffs on at least \$50 billion in Chinese imports. Chinese and American officials have quietly started negotiating on ways to improve U.S. access to Chinese markets and reduce the trade deficit.

The Trump administration is considering a crackdown on Chinese investments in technologies the U.S. considers sensitive, by invoking a law reserved for national emergencies. The US government is working on plans to identify technology sectors in which Chinese companies would be banned from investing, such as semiconductors and the so-called 5G wireless communications.

China's economy started 2018 with a steady growth. Industrial production expanded by 7.2% in January and February from a year earlier compared to the 6.2% pace in December.

China has set its GDP growth target at around 6.5% for 2018. In 2017, the economy grew 6.9%. This will enable China to achieve relatively full employment, according to the report delivered by Premier Li Keqiang at the first session of the 13th National People's Congress. China wants its economy to transition from a phase of rapid growth to a stage of high-quality development.

China aims to maintain the inflation level at around 3% in 2018. China's official consumer price index rose 2.9% year on year in February. That was up from just 1.5% in January.

The People's Bank of China's Governor Yi Gang has announced that there will be a series of reforms and opening-up measures. It is believed that Beijing is working on a plan that would involve boosting foreign participation in the financial sector such as insurance. President Xi Jinping is expected to unveil that plan during the Boao Forum, scheduled to be held in the southern Chinese island of Hainan in April.

China's exports rose 24.4% on-year in January–February, much better than 10.8% in December. Imports in the first two months of the year rose 21.7%, compared with 4.5% in December. The deceleration in import growth for February may be due to the previous month's unusual strength. China's trade surplus widened to \$33.7 billion for February, compared with January's \$20.4 billion surplus.

**Korea: Composite Index**



The People's Bank of China set the dollar's reference rate at 6.2816 yuan in the last week of March, putting the yuan at its strongest since August 11, 2015.

North Korean leader, Kim Jong Un, made a surprise visit to Beijing in March. Beijing is reasserting itself and looking to shape the agenda for the upcoming summits between the North Korean leader and President Trump.

	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

GDP growth declined 0.2% in the fourth quarter of 2017 due to weakness in car exports and construction which overshadowed strength in consumption and public spending. We maintain our growth forecast of 3% this year after 3.1% growth in 2017. The economy is facing headwinds as the Trump administration begins rolling out a series of punitive trade measures which would hit South Korea and its biggest trading partner, China.

The United States and South Korea agreed to revise their six-year-old free trade agreement with a side deal to deter competitive currency devaluation by Seoul and give more access for U.S. automakers and drugmakers to the South Korean market.

Consumer prices rose 1.3% year on year in March compared to 1.4% in February. We expect inflation to average 1.7% this year before reaching its annual target of 2% next year. The Bank of Korea left its key interest rate unchanged in February, as expected, noting muted inflationary pressures and showing caution amid fears of a global trade war.

South Korean exports grew less than expected in March, adding to worries about the outlook for global demand amid growing fears of a U.S-China trade war and a resurgence in protectionism. March exports grew 6.1% to \$51.6 billion from a year earlier, below 7.5% seen in February. Imports increased 5% to \$44.7 billion compared with a revised

14.9% in February. That resulted in a trade surplus of \$6.9 billion, up from \$3.2 billion in the previous month.

The U.S. and South Korea agreed to amend their free trade agreement to address American concerns about a growing deficit and resolve friction over tariffs on South Korean steel. President Donald Trump is reported to have said that he may not finalize it until after a deal is made with North Korea. The changes to the deal focus on rebalancing trade in the auto sector. Under the new terms, South Korea would double the import quota for American-made cars that meet U.S. safety rules — but not Korean ones — to 50,000 from 25,000 per U.S. car maker each year. South Korea will now allow the U.S. to keep its 25% tariffs on pickup trucks in place for 20 more years. The truck tariffs had been set to expire in 2021. In return, the U.S. agreed to give South Korea a permanent exemption from 25% import tariffs on steel. South Korea had been temporarily excluded from the metal’s tariffs.

	16	17	18	19	20
GDP (%p.a.)	2.8	3.2	3.0	2.6	2.5
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

## Taiwan

Taiwan’s economy is continuing to chug along and inflation remains benign. The central bank’s accommodative stance continues as before. We continue to maintain last month’s forecast on the economy even though there are domestic headwinds from deleveraging and the country’s tech sector is the latest target for new U.S. tariffs.

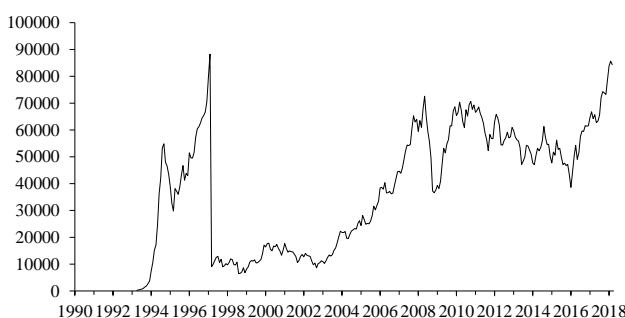
For Taiwan, tariffs is not the biggest worry, but rather the U.S. position on Taiwan. Tensions over Taiwan are simmering between China and the U.S. China views Taiwan as a province. The Taiwan issue is a top priority for Beijing and is more politically sensitive. The U.S. will measure relations with Taiwan based on its national interest, and Taiwan will be a pawn to Beijing. It is a foregone conclusion that China will take a tough stance on any American deal with the disputed territory.

Tensions have been steadily rising since Taiwan’s 2016 election, which replaced a China-friendly government with the one run by the pro-independence Democratic Progressive Party. President Tsai has angered China by refusing to endorse the one-China framework while offering to sign a U.S. free-trade deal and buy more advanced American arms. Taiwan is a diplomatic card for Trump to play when he needs to annoy China. In the future, Taiwan may suffer even more, as it gets caught in the middle between a stronger China and an inward-looking U.S. China has signalled it will have little patience with the U.S. if it attempts to upgrade its relationship with Taiwan.

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



	16	17	18	19	20
GDP (%p.a.)	1.4	2.6	2.5	2.3	2.3
Inflation (%p.a.)	1.0	0.6	1.2	1.2	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 recovery is anaemic from the deep recession of 2015 and 2016. It expanded just 1% in 2017 and likely to expand just 2.5% in 2018 and in 2019. Brazil’s debt-to-GDP ratio remained stable at 55% for 2018, but will increase to 57.40% in 2019. Brazil’s budget deficit narrowed in February, as borrowing costs bring relief to government debt. The 12-month deficit was 7.34% of gross domestic product. The primary budget result, which excludes interest payments, was .43% of GDP in the 12-month period through February.

Brazil’s central bank cut its benchmark interest rate in the third week of March, for the 12th consecutive time, and surprised markets by signalling readiness to trim the rate again at its next meeting on May 16, as price increases remain below expectations. The monetary policy committee cut the bank’s Selic short-term rate to 6.5% from 6.75%, a record low. The bank began the current rate-cut cycle in October 2016, when the Selic was at 14.25%. The Selic is already at the lowest since the bank adopted inflation-targeting in 1999, and it could go even lower at the next meeting.

The rate cuts have been fuelled by a sharp drop in inflation, to a 12-month rate of 2.8% in February from 10.7% in January 2016. This was the lowest annualised rate for the

month of February in 18 years. Brazil's central bank has a 4.5% inflation rate target, with a tolerance range of 1.5 percentage points in either direction. The target is set to fall to 4.25% in 2019 and 4% in 2020.

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. March's trade surplus was the second best for the month since 1989, when records began. Brazilian export revenue rose 0.07% in March from a year before to US\$ 20.1 billion. Imports were 6.7% higher at US\$ 13.8 billion, boosted by crude oil and capital goods.

In spite of the major problems in its political and financial systems, the Brazilian real has been rising since 2016. Increased consumer confidence after the impeachment of former President Dilma Rousseff helped the rally in the Brazilian real. The reason for the real to appreciate is that

Brazil is a major commodity exporter and the value of the real is driven mainly by its buyers. Dollar appreciation helps in the price movements of the commodities.

Mr. Temer has been trying to push through Congress unpopular reforms to Brazil's insolvent pension system and to its complicated labour regulations. The report in O Globo that Mr. Temer gave his blessing to an attempt to pay a potential witness to remain silent in the country's biggest-ever graft probe, has effectively destroyed his support among lawmakers. All the money that had entered Brazil in expectations of the reforms passing will now leave.

	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
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

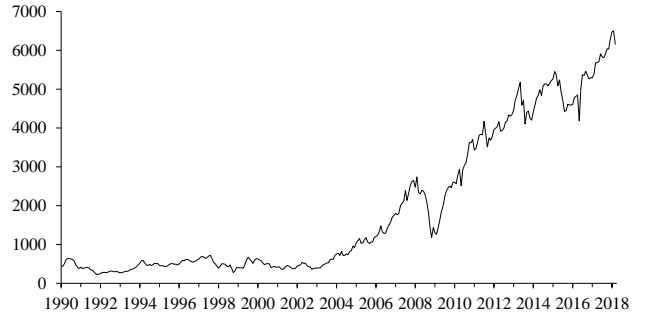


## Other Emerging Markets

**Hong Kong: FT-Actuaries**



**Indonesia: Jakarta Composite**



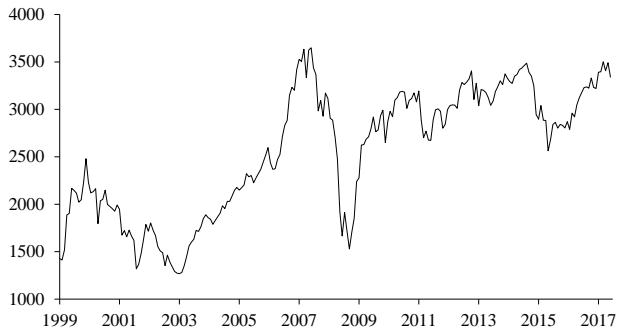
**Malaysia: FT-Actuaries  
(US\$ Index)**



**Thailand: Composite Index**



**Singapore: Straits Times Index**



**Philippines: Manila Composite**



# COMMODITY MARKETS

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



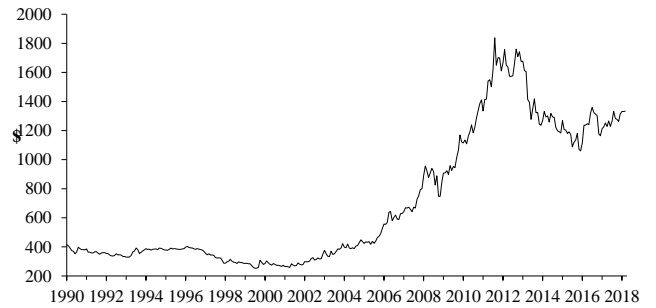
**Oil Price: North Sea Brent (in Dollars)**



**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 % <sup>1</sup> (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100) <sup>2</sup>	Real Exchange Rate <sup>3</sup>	Real 3 Month Int. Rates % <sup>4</sup>	Inflation (RPIX)	Real Short Dated Rate of Interest <sup>5</sup>
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

<sup>1</sup> Consumer's Expenditure Deflator

<sup>2</sup> Sterling Effective Exchange Rate Bank of England

<sup>3</sup> Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate

<sup>4</sup> Treasury Bill Rate less one year forecast of inflation

<sup>5</sup> 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) <sup>1</sup>	Wage Growth <sup>2</sup>	Unemployment (New Basis) Percent <sup>3</sup>	Millions	Real Wage Rate <sup>4</sup> (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

<sup>1</sup> Whole Economy

<sup>2</sup> Average Earnings

<sup>3</sup> Wholly unemployed excluding school leavers as percentage of employed and unemployed, self employed and HM Forces

<sup>4</sup> Wage rate deflated by CPI

**Estimates and Projections of the Gross Domestic Product<sup>1</sup> (£ Million 1990 Prices)**

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption <sup>2</sup>	Private Sector Gross Investment Expenditure <sup>3</sup>	Public Authority Expenditure <sup>4</sup>	Net Exports <sup>5</sup>	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

<sup>1</sup> GDP at factor cost. Expenditure measure; seasonally adjusted

<sup>2</sup> Consumers expenditure less expenditure on durables and housing

<sup>3</sup> Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building

<sup>4</sup> General government current and capital expenditure including stock building

<sup>5</sup> Exports of goods and services less imports of goods and services

**Financial Forecast**

	PSBR/GDP % <sup>1</sup>	GDP <sup>1</sup> (£bn)	PSBR (£bn)	Debt Interest (£bn)	Current Account (£ bn)
			Financial Year		
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

<sup>1</sup> 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	
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

### 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

### 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

### 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

### 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

### 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

### Index Of Real Exchange Rate(2000=100)<sup>1</sup>

	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

<sup>1</sup> 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)

	2014	2015	2016	2017	2018	2019
U.S.A. <sup>1</sup>	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

<sup>1</sup> 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