

# LIVERPOOL INVESTMENT LETTER

January 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.

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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# REVIEW OF THE POST-REFERENDUM ECONOMY — DESPITE BREXIT

Conveniently for Consensus economists, the mandatory end-of-year reviews of 2016 and 2017 never included the forecasts they made in August 2016 at the height of their panic over Brexit. The 2016 forecasts they reviewed were all made at the end of 2015 when they did not expect Brexit and the 2017 forecasts they reviewed at the end of last year were all made at the end of 2016 when their panic had largely subsided and been replaced by sullen expectation of slowdown in some vaguely-specified future.

It is instructive to evaluate how the economy has turned out since the referendum since it is a good test of the Consensus negativism towards Brexit, led sadly by HM Treasury in its two Brexit Reports (short and long term). This consisted of two strands of thinking: Brexit would cause damaging uncertainty in the short term which would cause a collapse in demand, with a likely recession, and would also inflict long-term damage on the potential growth in the economy due to a contraction of trade with the rest of the EU.

The broad picture turned out quite differently on both counts. First, demand did not collapse but continued to grow rather normally; during 2017 the consequences one would expect from a large devaluation showed themselves, with consumption slowing and net exports rising on the back of enhanced profits in the traded sector — the so-called ‘expenditure-switching’ effect of a devaluation. While a number of economists pounced on the slowdown of consumption as evidence of the forecast ‘demand slowdown’, this was plainly a misinterpretation of that usual expenditure-switching effect, now more obvious in the data as CBI and PMI (Purchasing Managers) surveys reveal the extent of the new upswing in manufacturing and other traded sales.

Second, there is no evidence of long term decline in potential growth. Much has been made of the ‘productivity puzzle’ whereby since the financial crisis UK measured productivity has grown well below its past trend of around 2% a year: the Office of Budget Responsibility notoriously revised down its projections for future UK productivity growth in its November 2017 Budget forecasts. Without ascribing this to Brexit, it managed to fit into the general Treasury-inspired gloom about the consequences of Brexit with this forecast.

Yet there are two key issues involved here which should inspire scepticism about the supposed UK productivity slowdown — discussed at some length in ‘A Budget for Brexit’<sup>1</sup>. First, measured productivity (i.e. output per person)

**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)

is highly responsive to the business cycle; bad recessions like the Great Recession in the financial crisis have a huge effect on it. This is due to the fact that labour is more and more like a fixed asset, in which like capital the firm’s own specific knowledge and ‘human’ capital is lodged. In recessions it is much under-utilised. Then in the slow recovery we have had where labour became extremely cheap as people were desperate to find jobs, firms acquired more labour — a ‘good time to buy’ — and essentially hoarded it, building it into its capital stock. It is particularly significant that in the second half of 2017, when employment has stopped growing with an increasingly tight labour market and little available spare supply, output has grown solidly and with it productivity has ‘taken off’!

Second, the productivity of a service economy is plainly under-measured, even when one gets past this problem of cyclicity. Service quality is notoriously hard to measure; and Statistics Offices do not even try (as they have started to try with the quality of goods like computers and washing machines). Yet there are plenty of reasons to think it is rising steadily as services incorporate the effects of computerisation into their product — think of how much easier it is to book hotels or travel or of Wi-Fi with your coffee or to do research via the internet. Even government services have become more productive — think of getting your car licensed or your fines paid.

Of course the problem for the UK is that services are now 80% of GDP: the easily-measurable productivity gains in manufacturing, only 10% of GDP, now contribute only a small proportion of growth in GDP. The same is true of the US and of most advanced economies, hence the ubiquity of the productivity puzzle in the developed world.

<sup>1</sup> <https://www.economistsforfretrade.com/publication/a-budget-for-brexit/>

**Table 2: Consensus Forecast**

Consensus Forecast Aug 2016			Consensus Forecast Dec 2016	Outturn		
2016	H2*	2017	2017	2016	H2*	2017
GDP	1.6	0.1	0.6	1.3	1.9	0.65 1.8 <sup>+</sup>

\*Second half average quarterly growth rate

<sup>+</sup>Based on 0.5% growth in Q4

When one looks at the Consensus forecasts for August 2016 in Table 2 one can see that it greatly underestimated the growth rate since Brexit. For 2016 they expected a near recession in the second half worth 0.1% growth in each quarter whereas in fact the quarterly growth rate was 0.65%; the Treasury notoriously predicted an immediate recession after the Brexit vote. For 2017 the Consensus expected growth to continue at a similarly slow rate, 0.6% per annum, whereas in fact growth has proceeded at 1.8% per annum. By December 2016, the Consensus forecast for 2017 had risen to 1.3%; however this was still well below the 1.8% outturn. The December 2017 Consensus forecast for 2018 is 1.5%. It too will be surely much too low.

Our own forecasts were for the continuation of previous growth rates in the 2–3% range through the rest of 2016 and for 2017. In fact, soon after August 2016 the ONS sharply revised downwards its estimate of Q1 growth, from 0.4% to 0.2%; this meant that growth in the first half of 2016 was now estimated to be at around 1.8% p.a.. Essentially what this revealed was that the pre-Brexit growth rate had slowed below the 2–3% rate. In our subsequent forecasts we revised down our growth projections closer to 2%. However, we remain doubtful about the ONS' estimates for 2017 (and also 2016) and expect them to be revised upwards, as they often are; they have been systematically below what would have been implied by the PMI surveys. Also, as noted later, the ONS has just (December) discovered a large error (£3.6 billion) in its estimate of net exports in Q3: on its own, correcting this would add 0.7% to Q3 GDP, nearly tripling the Q3 quarterly growth rate! We await the next revision of Q3 GDP.

As for any Brexit effect, it will have come through the Brexit devaluation. Projecting exactly how rapidly a devaluation will work on each of the different spending categories is fraught with difficulty; the lags are variable though typically longer for business spending and net exports than for consumption.

The main point to come out of all this for the economy's behaviour is that it has not reacted much in its overall growth to Brexit. The gloom of the Consensus was not justified: growth has remained pretty much unaltered, and certainly has not dived to near-recession rates as the Consensus forecast. Moreover, it is reacting rather healthily to the Brexit devaluation, with a consumption slowdown, some investment growth and an improvement in net exports; were it not for the feverish 'despite Brexit' atmosphere that has gripped the forecasting community such a short term trend would have been widely welcomed.

## How the latest indicators look

Let us end this backward look at forecasting outcomes with a forward look at where available surveys suggest the economy is headed.

Starting with productivity where so much ink has recently been spilt, we may note that in Q3 and Q4 growth looks as if it will have been around 0.9% for the second half of 2017, at least as seen by the ONS at this time. Meanwhile the latest estimates of employment suggest that it has fallen by 0.2% between May–July and August–October. Supposing there is no further fall in employment by the year end, this would imply that in the second half of the year measured productivity per man jumped by 1.1%, an annual rate of 2.2%, roughly around its previous trend pre-crisis. Just for the third quarter the latest ONS estimate of productivity per man hour is +0.9%, an annual rate of 3.6%! (Hours worked dropped 0.5% in Q3 while output rose 0.4% on the estimates so far.)

How strong is current growth, going into 2018? Fairly strong according to two major sets of indicators. The CBI survey of private sector business across distribution, manufacturing and services reported a positive balance of +19% in the quarter to December, strengthening from +6% in the quarter to November — any positive balance indicates growth. Its recent surveys of manufacturing have been the best since 1988, underlining strong optimism on export orders.

The Purchasing Managers' Indices, where a number over 50 indicates growth, are similarly positive. The manufacturing PMI for November was 58.2, for services it was 53.8 and for construction it was 53.1. These all support the idea of growth continuing for now at its current rate of 2% or so.

An important element in all this is the movement of net exports, which we would expect a large devaluation to push upwards especially when world growth is proceeding at a moderately good rate, just below 4%. The goods and services trade balance was averaging –£10 billion a quarter during 2016. In the third quarter this was down to –£5.8 billion, almost half the 2016 rate. This is an improvement of no less than 1.0% of GDP in just over a year. In volume terms the improvement is around £4 billion, about 0.8% of GDP, this being the contribution to the growth rate over the period. Here the ONS has needed to make large upward revisions of the data in the last month, discovering substantial extra exports of services.

A similar improvement is occurring in the net income balance of the current account. This has been running at a deficit since the financial crisis, before which it was in surplus; in 2016 this averaged a negative £18.25 billion per quarter. By Q3 2017 this had improved to –£16.9 billion, a 0.3% boost to Gross National Income.

These are all encouraging figures which suggest that the UK economy is entering a period of steady growth and an improving balance of payments. Plainly given that the

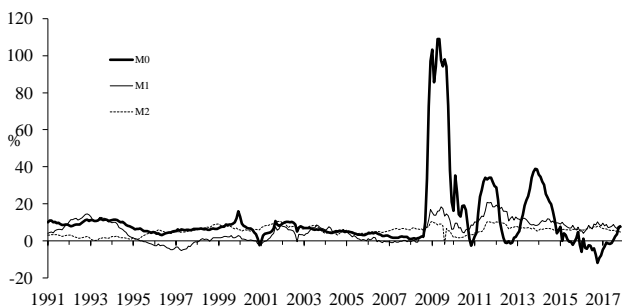
current account deficit was running before Brexit at around 7% of GDP, this had to be corrected since it revealed that the economy was spending this much above its income, an unsustainable situation. It is encouraging that since the Brexit devaluation this situation has been improving and the current account deficit had in 2017 Q3 come down to 4.5% of GDP. It is a further unfortunate manifestation of Brexit fever that the economic forecasting community is hardly picking this up in its ongoing commentary.

It remains true that answers to ‘confidence’ questions remain either uncertain or negative. This is true for example of the CBI and the Bank of England agents’ surveys of confidence, as well as consumer confidence surveys. However, it must be said that these surveys generally mirror media commentary on the outlook and do not correlate well with what businesses and people actually do in reaction to their own situation. With media, especially the BBC, comment relentlessly downbeat, with the constant refrain of ‘despite Brexit’, it is entirely natural that when questioned businesses and people express doubt and concern about the future. This is clearly worsened by the general ‘noise’ of the political process both here and in the EU over trade negotiations. Nevertheless what is clear is that people and businesses are weathering this process and carrying on robustly with their own business and personal agendas. We often forget that uncertainty is endemic in the economy even in the best of times and that it is usually dealt with pragmatically on the basis of direct individual circumstances and judgements; ‘general confidence’ indicators on their own are often for this reason a poor guide to actual intentions.

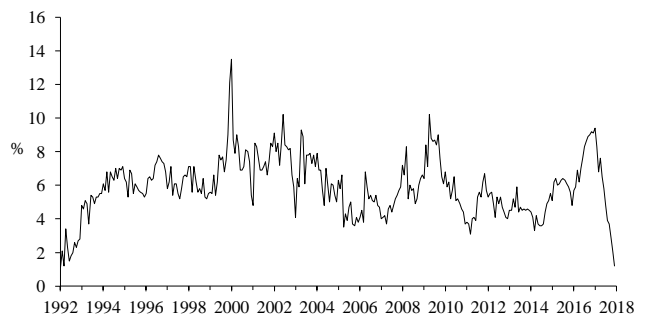
**Conclusions**

The economy is performing robustly in the face of a Brexit process which is still incomplete. The sooner the negotiations with the EU can be successfully concluded the better in terms of general confidence factors. As I have argued elsewhere the UK would do well under ‘No Deal’, indeed it would in purely economic terms do better than with a Canada-plus trade deal, in that there would be a quicker movement to free trade and a big gain in our net financial payments to the EU. However what is important is that a united government proceeds to deliver its current clear policy to get agreement with the EU and non-EU trade partners on free trade, with the UK resuming control of its domestic regulations and its borders. That will pave the way for a decade of faster growth.

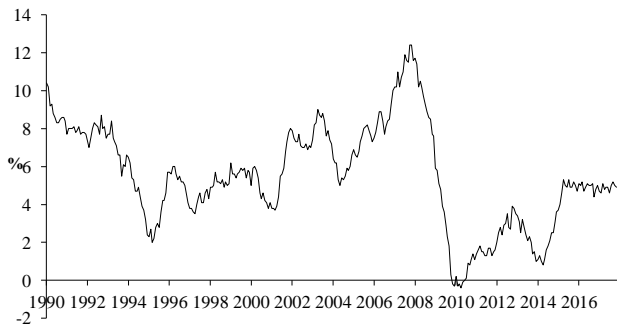
**U.S.: Growth in Monetary Aggregates (Yr - on - Yr)**



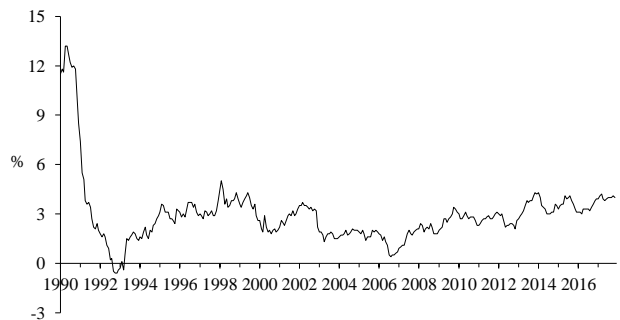
**UK: Notes and Coins in Circulation Growth**



**Eurozone M3 Growth**



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



## FOCUS ON JAPAN

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Francesco Perugini

### Japan's prospects for 2018

The Japanese economy is experiencing its second longest economic expansion in the post World War II era, as real GDP growth has been positive for seven quarters in a row — the longest positive streak in 16 years. The labour market is also very tight — the unemployment rate sits at a 22-year low of 2.8% and the effective job openings-to-application ratio is at a 43-year high of 1.55. Corporate profits are the highest in history and the Nikkei index has risen to a 26-year high.

Many economists are now expecting the positive tone to hold through 2018 amid strong demand at home and abroad. One key factor behind the boom this year may be that companies could spend stockpiled cash reserves more actively to raise wages and make capital investments to overcome capacity constraints and improve productivity. As for wages, some economists say they are optimistic this year will see pay increases for part-time and full-time workers. The recovery in the global economy should boost Japanese exports and keep the Japanese economy on a path of moderate growth, as China is thought likely to avoid a sharp slowdown thanks to infrastructure investment, and as tax cuts brighten prospects for the US.

The optimistic view extends to firms too. According to a survey by Kyodo News, a leading news agency, about 82% of major companies expect the Japanese economy to grow in 2018, citing a recovery in corporate capital investment and personal spending (though they are also cautious about raising wages). This percentage is up sharply from a similar survey a year earlier, when 58% of companies predicted growth, indicating businesses are increasingly optimistic about domestic economic prospects. The majority of firms believe that the economy will expand thanks to increased business spending and a recovery in individual consumption, while only a modest 18% see their exports expanding.

Furthermore, the political climate has been stabilised by Prime Minister Shinzo Abe's last October landslide victory in the snap elections. Moreover, Abe should be re-elected president of the Liberal Democratic Party (LDP) party next September. This will pave the way for him to secure power until 2021 and achieve the necessary political stability he needs to implement structural reforms and make substantial progress in his reform agenda.

Consequently, the government's latest economic forecasts show GDP growing 1.8% in fiscal 2018, up from the previous estimate of 1.4% made in July. Growth is forecast to be led by domestic demand while on the back of strong overseas economies, exports are expected to stay firm

However, there still remain major issues for the government to solve in 2018. First of all, the key for long-term growth is the somewhat forgotten third 'arrow' of Abenomics, namely structural reforms. The two most important ones — labour reform and deregulation — have been held back, keeping potential growth very low.

In the labour market, little progress has been made in reforming the life-time employment system, which has been a bottleneck for the Japanese economy. In fact, employees under permanent employment contracts are highly protected by law and their wages are based on seniority and length of service. While the system established employment stability, it has limited efficient resource allocation through labour mobility, which is essential for an economy undergoing structural change such as Japan's. For instance, even when Japanese manufacturers shift their production sites overseas, their permanent staffs do not have much incentive to seek employment opportunities outside their organizations. The other side of the coin is that the job market for those in mid-career has still not been well established. Furthermore, because on-the-job training is a common practice, opportunities for professional training to rebuild careers, such as business schools, are underdeveloped in Japan. Data from the Japanese Ministry of Health, Labour and Welfare shows that low-productive positions are growing faster than high-productive ones. As a result, the underdevelopment of the job market and educational system for those in mid-career poses challenges in reversing this negative relationship, limiting improvements in potential growth.

The permanent employment system has also increased the burden on workers outside the system. As the economy has stagnated over the past few decades, companies increased employment through a larger number of contract workers with limited legal protection and opportunities for on-the-job training, which in turn restricted the improvement in the potential growth rate. Their wages were more than 30% below those of permanent workers, creating disincentives to switch careers and reducing labour mobility. These developments have contributed to subdued wage growth despite the unemployment rate falling to 2.8% in July, the lowest level since the early 1990s.

The second shortcoming of Abenomics is insufficient deregulation. The Japanese economy is generally known to be highly regulated, with only limited market competition, and reality has not changed much following the launch of Abenomics. The ranking of ease of doing business is well below the position of the US and similar to the levels of France and Spain. High market regulation, especially in professional services, the telecommunications and energy sectors, has played a significant role, raising the barriers to entering the market. As a result, regulations have not only

discouraged investments but also limited market competition, thereby lowering total factor productivity.

Overall, the implementation of the third ‘arrow’ of Abenomics is essential to improve the economy’s long-term prospects, given that Abenomics’ first two ‘arrows’ — Bank

of Japan (BOJ) ultra-expansionary monetary and government fiscal stimulus — are also exhausting their effectiveness. Without meaningful structural reform, the Japanese economy will continue to be highly sensitive to global economic developments and the long-term outlook is less upbeat than is actually depicted by majority of observers and practitioners.



## MARKET DEVELOPMENTS

World growth has strengthened, getting up towards 4%. Gradual bank deregulation, now being pushed by the Trump administration, is a factor; also the QE programme has had a direct effect on asset markets. As deregulation proceeds the huge bank reserves created by QE will start to be mobilised into credit suggesting the need for monetary

tightening. Raw material markets still have massive excess capacity which will prolong the current expansion probably well into the second half of the 2020s. These prospects continue to underpin equity markets and undermine the prospects for bond prices.

**Table 1: Market Developments**

	Market Levels		Prediction for Dec/Jan 2018/19	
	Dec 6	Jan 4	Previous Letter View	Current View
<b>Share Indices</b>				
UK (FT 100)	7348	7696	10117	10659
US (S&P 500)	2629	2724	3187	3301
Germany (DAX 30)	12999	13168	20603	20871
Japan (Tokyo New)	1765	1864	2189	2311
<b>Bond Yields (government)</b>				
UK	1.36	1.26	1.50	1.50
US	3.32	2.45	3.00	3.00
Germany	0.30	0.44	0.80	0.80
Japan	0.04	0.04	0.10	0.10
UK Index Linked	-1.62	-1.68	-1.00	-1.00
<b>Exchange Rates</b>				
UK (\$ per £)	1.34	1.36	1.30	1.30
UK (trade weighted)	78.70	78.01	76.10	76.10
US (trade weighted)	99.10	98.87	102.4	102.4
Euro per \$	0.85	0.83	0.85	0.85
Euro per £	1.14	1.12	1.11	1.11
Japan (Yen per \$)	112.3	112.8	114.1	114.1
<b>Short Term Interest Rates (3-month deposits)</b>				
UK	0.51	0.49	0.70	0.70
US	1.52	1.70	1.80	1.80
Euro	-0.41	-0.41	-0.20	-0.20
Japan	-0.25	-0.15	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	4.07	27.26
Germany	3.30	1.9	1.6	55.00	1.53	63.33
Japan	1.90	1.2	0.8	22.00	2.94	28.84
UK indexed <sup>2</sup>	-1.68		2.5	1.00		1.83
Hong Kong <sup>3</sup>	2.60	6.5	1.9	-2.00	4.07	13.07
Malaysia	3.30	5.3	1.9	52.00	4.07	66.57
Singapore	3.50	2.4	1.9	11.00	4.07	22.87
India	1.40	7.6	1.9	23.00	4.07	37.97
Korea	1.10	3.0	1.9	-16.00	4.07	-5.93
Indonesia	2.20	5.3	1.9	29.00	4.07	42.47
Taiwan	2.80	2.5	1.9	17.00	4.07	28.27
Thailand	3.20	3.0	1.9	23.00	4.07	35.17
<b>Bonds: Contribution to £ yield of:</b>						
	Redemption Yield	Changing Nominal Rates	Currency	Total		
UK	1.26	-2.40				-1.14
US	2.45	-5.50	4.07			1.02
Germany	0.44	-3.60	1.53			-1.63
Japan	0.04	-0.60	2.94			2.38
<b>Deposits: Contribution to £ yield of:</b>						
	Deposit Yield	Currency	Total			
UK	0.49		0.49			
US	1.70	4.07	5.77			
Euro	-0.41	1.53	1.12			
Japan	-0.15	2.94	2.79			

<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	
	December Letter	Current View	December Letter	Current View	December 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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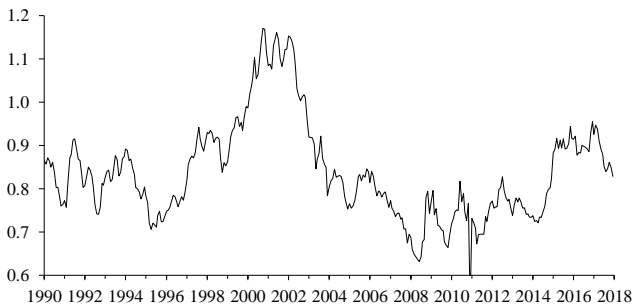
**US : Trade Weighted Index  
(Bank of England 1990 = 100)**



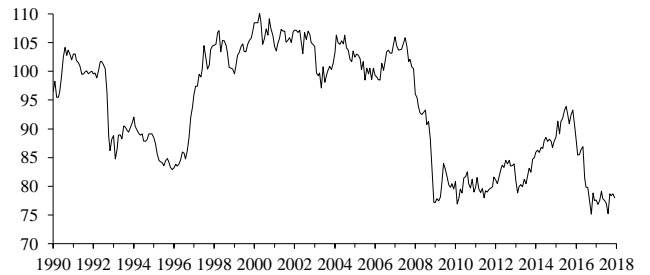
**UK: Dollars Per Pound Sterling**



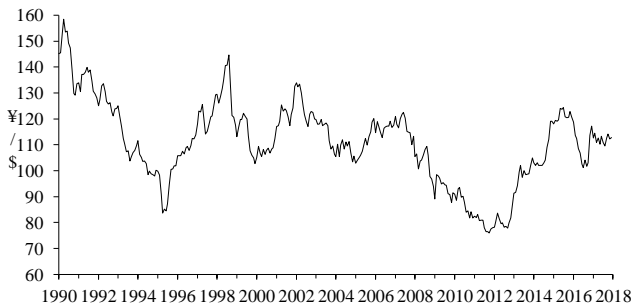
**Euro per US dollar**



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



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

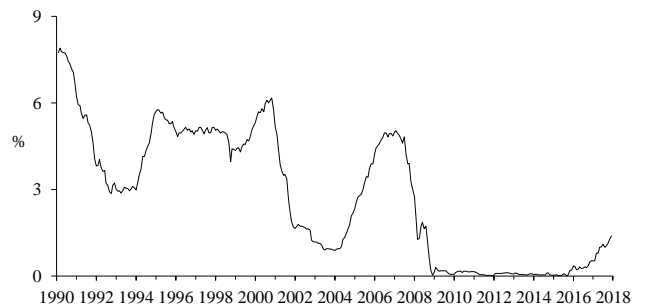


# GOVERNMENT BOND MARKETS

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



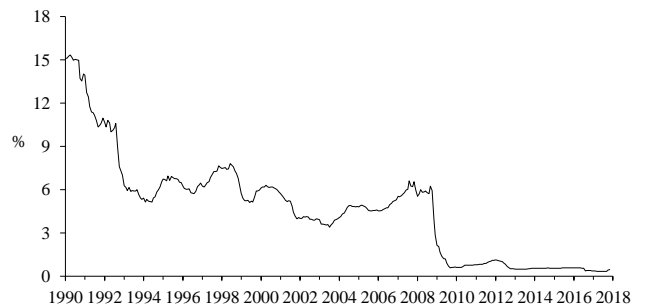
**U.S. : 3-Month Treasury Bill**



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



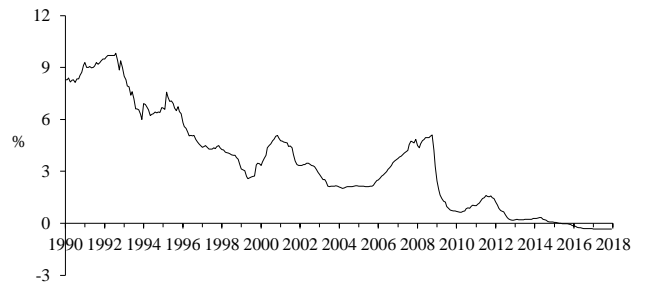
**U.K. : 3-Month Interbank Rate**



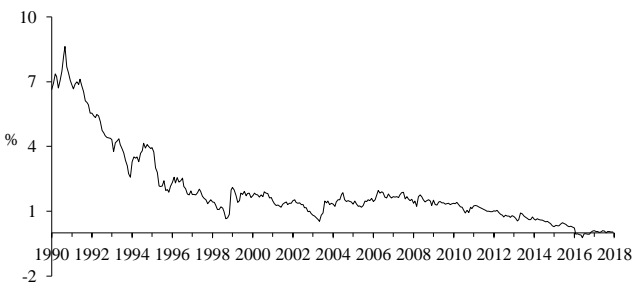
**Germany: Yield on Public Authority Bonds**



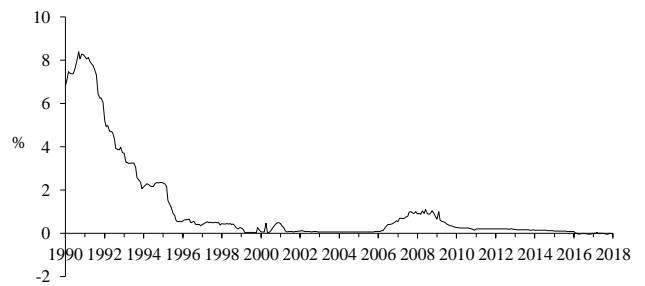
**Germany : 3-Month Interbank Deposit Rate**



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



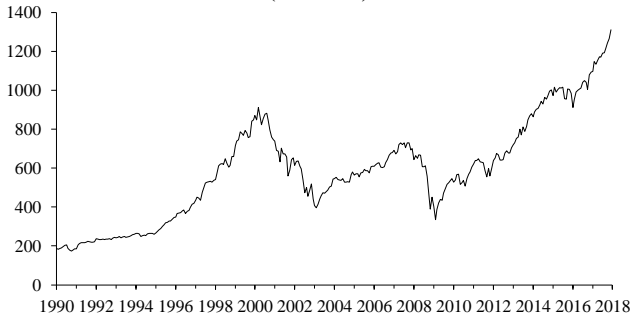
**Japan : 3 Month Money Market Rate**



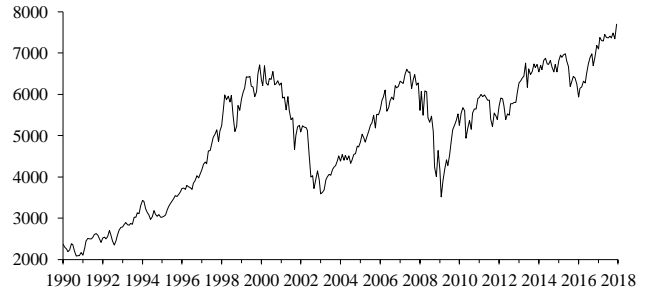
# MAJOR EQUITY MARKETS

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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 expected to witness a sharp recovery in the January–March quarter and its GDP growth is likely to grow around 7.6% in the next fiscal year. The Nikkei Manufacturing Purchasing Managers’ Index for December rose above its November mark, thus making it the fifth straight month above the 50 level. The IHS Markit, which compiles the index, says that the manufacturing sector witnessed higher payroll figures in December while the rate of job creation rose to its highest since August 2012.

As expected, the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) kept the headline repo rate at 6%. Because of the rising food and fuel prices, inflation as measured by the consumer price index has accelerated to 3.58%. Though the central bank has announced that its stance is neutral, it is unlikely to ease monetary policy in a hurry.

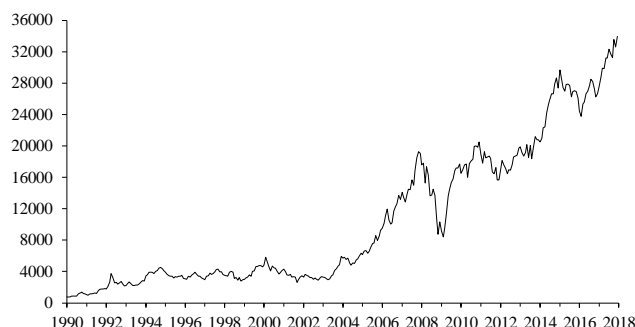
The government has breached its fiscal deficit target given in the Budget for 2017–18 in November itself. During the April–November period, the fiscal deficit was 112% of its Rs 5.5 trillion target for the current fiscal year. This means that the government needs to have a fiscal surplus in the next four months combined if it has to meet its target, which is a difficult task. Consequently, the 10-year bond yield rose to 7.26%, the highest since July 2016. The bond market is also factoring in that the government might try to prepare for the 2019 election by announcing a slew of populist measures in the coming budget going to be tabled on February 1.

India’s current account deficit widened to 1.2% of GDP in July–September or \$7.2 billion against 0.6% or \$3.4 billion in the same period a year ago. By the end of the fiscal year ending in March, the deficit may rise to 1.7% of GDP, as oil and other global commodity prices continue to gain, while exports remain stable. Notwithstanding a wider current account deficit, India’s balance of payments posted a surplus of \$9.5 billion in July–September compared with \$8.5 billion a year ago, helped by a stronger capital account. The capital account surplus, which includes foreign direct investment and portfolio inflows, was at \$6.9 billion in the September quarter compared with \$4.3 billion a year ago.

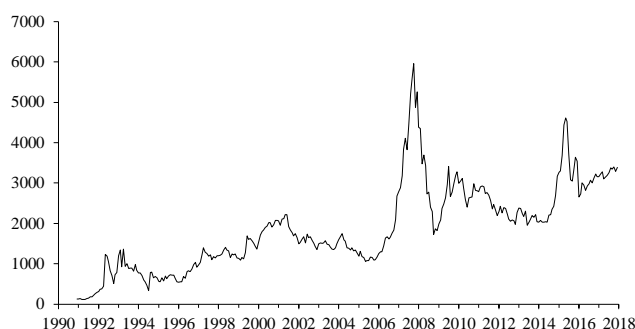
The rupee started 2018 on a strong note, with the currency edging up to a five-month high of 63.65 against the US dollar. This is the highest value of the rupee against the US dollar since August 2017. The rupee had risen almost 6% against the US dollar in 2017, buoyed by strong inflows into Indian capital markets.

Indian equity markets haven’t felt the heat of monetary policy normalization in the advanced nations, primarily

India: BSE Sensitive



China: SSE Composite Index



because of unabated domestic inflows to the equity market. However, any global event rattling the investors’ sentiment may quickly reverse this trend. The S&P BSE Sensex has delivered 27.9% returns in 2017, making it the best year for equities since 2014.

	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	4.0	4.1	4.0
Current A/c(US\$ bill.)	-24.0	-26.0	-20.0	-24.0	-26.0
Rs./\$(nom.)	68.2	65.0	66.0	67.0	68.0

### China

China’s economic growth is expected to be about 6.9% in 2017 and 6.5% for 2018. The Chinese economy is beginning to gradually lose steam as a crackdown on air pollution and a slump in the property market have hit industrial output. However, signs of a sharper slowdown — a major fear among global investors — is unlikely to materialize. The official Purchasing Managers’ Index (PMI) dipped to 51.6 in December, down from 51.8 in November.

China’s central bank followed a U.S. interest-rate increase with one of its own to blunt the effect of the Federal Reserve move on the Chinese economy. The People’s Bank of China raised two key short-term interest rates hours after the U.S. Fed’s third interest-rate increase this year. Chinese economy is likely to undergo more pains of soaring funding costs in 2018 as the US Fed has pencilled in three quarter-point rate

increases for the year and two such increases each in 2019 and 2020.

China's exports and imports showed surprising strength in November, underpinned by a recovering global economy and resilient domestic demand. Exports were up 12.3% from a year earlier, accelerating from October's 6.9% pace and well above the 6% expected increase. China's imports in November were up 17.7% from a year earlier, driven by rising commodities costs and domestic demand.

The trade surplus widened to \$40.2 billion in November from \$38.1 billion in October. Even so, the cumulative trade surplus for the first 11 months of the year narrowed to \$376 billion from \$470 billion in the same period in 2016.

The central parity rate of the Chinese yuan strengthened 263 basis points to 6.5079 against the U.S. dollar. Overall the Chinese yuan appreciated more than 6% in 2017.

Stocks in China achieved double-digit gains in 2017 as domestic and global investors increased their exposure to Chinese markets despite worries about a slowing economy and further regulatory crackdowns. China's blue-chip CSI300 index rose roughly 22% in 2017. Blue chips led gains in China's stock markets in 2017, while many small caps languished.

China is preparing to launch its own yuan-based oil futures contract, a move set to shake up the 96 million barrel-per-day global crude market, currently dominated by trading in London and New York. Uncertainties with this instrument persist as interest of foreign investors and oil majors remains unknown. But authorities in China, the world's biggest importer of crude, hope it will provide a benchmark price for oil in Asia that matches the region's voracious demand. A yuan-denominated oil contract could also challenge the role of the U.S. dollar — currently the dominant commodity-pricing currency — by making it possible for crude exporters to sell the oil in another currency.

	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	2.0	2.1	2.0
Trade Balance(US\$ bill.)	510	400	380	350	300
Rmb/\$(nom.)	6.7	6.6	6.5	6.6	6.7

## South Korea

With the world economy growing, South Korea is able to have GDP growth of 3.2% in 2017. South Korea's government expects the economic recovery to continue in 2018 but sees growth at a slightly slower pace than the last year as fiscal stimulus is tapered and a shrinking workforce weighs on the economy. We also expect economic growth of about 3% in 2018, slightly below its 3.2% GDP growth in 2017. The world's fastest ageing population will slow growth and act as a burden on macroeconomic policies in coming years.

**Korea: Composite Index**



Consumer prices were largely stable in December in spite of an increase in petro-chemical goods. Inflation stayed below the BOK's target level for most of 2017, but the central bank sees inflation approaching the target as oil prices rise and the global economy recovers. Inflation for the whole of 2017 was 1.9%. The central bank is likely to keep monetary policy accommodative in 2018 because inflationary pressure is weak even as the economy is expected to continue growing in the coming year. The Bank of Korea had raised interest rates in November for the first time in more than six years to 1.5%, yet tempered market expectations for further hikes by raising concerns about the job market and other uncertainties.

Soaring global demand for memory chips and petrochemicals helped South Korea's exports surge 8.9% in December, lifting its 2017 shipments to the highest on record in value terms. However, exports growth is expected to moderate to 4% in 2018 from an estimated 15.8% expansion in 2017. Exports in 2017 jumped \$573.9 billion last year, the best since relevant data began to be compiled in 1956.

Imports rose 17.7% in 2017, to \$478.1 billion, supported by an increase in equipment needed to produce memory chips and display products according to the trade ministry. Thus, South Korea posted a combined \$1 trillion in trade for the first time in three years. South Korea's trade surplus came to \$95.8 billion, up from \$89.2 billion in 2016.

The won appreciated 13% against the U.S. dollar last year, ending 2017 at a 32-month high of 1,074.1. The South Korean won was the best-performing currency of 2017, logging a yearly gain of 12.8% against the U.S. dollar. Investors are piling into South Korea's won, confident that the country won't weaken its surging currency because it fears being labelled a foreign-exchange manipulator by the U.S. The Bank of Korea officials have suggested that the U.S. watch list has influenced their policy toward foreign-exchange interventions.

South Korea's President Moon Jae-in called for a 'new era' in China relations and it has stepped up efforts to reassure Beijing over Thaad anti-missile system deployment. Mr Moon led a delegation of 300 executives on a four-day visit to China and it signals a thaw in diplomatic and business

relations between the neighbours. The visit was aimed at bringing Seoul and Beijing closer on the thorny question of North Korea, whose nuclear program has raised tensions across the peninsula.

	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	1.8	1.9
Current A/c(US\$ bill.)	88.0	88.0	86.0	80.0	78.0
Won/\$ (nom.)	1160	1100	1120	1140	1150

## Taiwan

With growing world trade, Taiwan is likely to grow much faster than what was estimated earlier. We expect Taiwan's GDP growth for 2018 to be 2.5%.

The central bank expects inflation to be mild and stable against a backdrop of rising pressure, with the 2018 consumer price index forecast to rise 1.12%. The central bank left its policy rate steady for the sixth straight quarter, as exports prove a bright spot for the economy and inflation remains mild. The discount rate was left at 1.375% at its board meeting in mid-December.

Taiwan's exports have grown for the 14th month thanks to a recovering global economy and strong demand for electronic products. Exports rose 14% from a year earlier in November, according to the Taiwan Institute of Economic Research (TIER).

Taiwan's total exports in the first 11 months of this year rose 13.1% compared with the same period of last year, while its imports grew 12.6%, with the trade surplus reaching 51.7 billion U.S. dollars.

The Taiwan dollar ended 2017 on a positive note, logging its biggest yearly gain against the U.S. dollar since 1989, with an 8.14% increase.

	16	17	18	19	20
GDP (%p.a.)	1.4	2.6	2.5	2.3	2.3
Inflation (%p.a.)	1.0	1.0	1.1	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

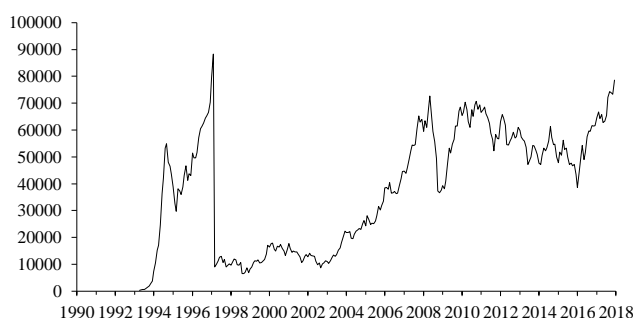
## Brazil

The Brazilian government is upbeat about the economy now. It expects the economy to grow 1.1% in 2017 and 3.0% in 2018. Inflation also, seems to be well under control. The Brazilian central bank expects inflation to undershoot the official target range. Brazil targets 4.5% annual inflation, plus or minus 1.5 percentage points. In its quarterly inflation report, the central bank forecast inflation of 2.8% in 2017, down from a prior 2.9% estimate.

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



The central bank has cut its benchmark interest rate to a record low in mid-December. The bank lowered its Selic rate by half a percentage point to 7%, the lowest level since it was created in 1999. The cut was in line with market expectations and marked the bank's 10th straight reduction in interest rates since October 2016, when the Selic stood at 14.25%.

The bank hopes that it will give a boost to the economy as gross domestic product grew just 0.1% in the third quarter, reinforcing fears that Brazil's recovery from its historic 2015–16 recession could be a sluggish one.

This year, Brazil recorded the largest trade surplus in history. It achieved trade surpluses of US \$62 billion. From January to November, exports reached US \$200 billion, 18.2% higher than in 2016; and imports were US \$138 billion, up 9.6% from the same period last year. Brazil's currency has been stable for most of the year, contributing to benign inflation and allowing central bankers to focus on rekindling growth. So far, investors have given Mr. Temer the benefit of the doubt. The stock market index (BOVESPA) appreciated 21% in 2017.

	16	17	18	19	20
GDP (%p.a.)	-3.6	1.1	3.0	3.0	3.2
Inflation (%p.a.)	6.3	2.8	3.0	4.0	4.2
Current A/c(US\$ bill.)	-28.0	-25.0	-25.0	-32.0	-30.0
Real/\$ (nom.)	3.5	3.2	3.2	3.2	3.2



## Other Emerging Markets

**Hong Kong: FT-Actuaries**



**Indonesia: Jakarta Composite**



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



**Thailand: Composite Index**



**Singapore: Straits Times Index**



**Philippines: Manila Composite**



# COMMODITY MARKETS

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



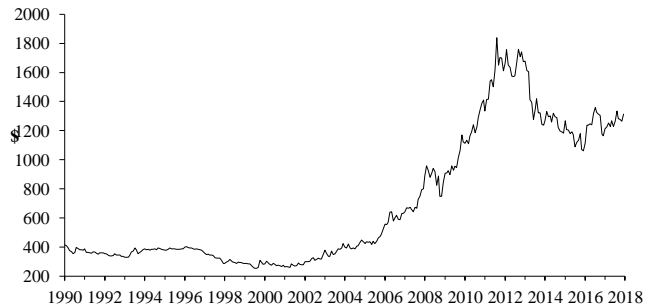
**Oil Price: North Sea Brent (in Dollars)**



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



**Gold Price (in Dollars)**



**Commodity Price Index (Euro)**  
(Economist)



## UK FORECAST DETAIL

### Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation % <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