

# LIVERPOOL INVESTMENT LETTER

September 2017



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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| <p>In spite of the ONS' efforts to muddy the waters with its preliminary estimates based on limited survey coverage, the general evidence on the economy from the much broader surveys of purchasing managers belie the volatility in the ONS estimates. It appears the economy has continued to grow quite steadily through the first half of the year and seems set to continue in the same vein in the second half. The euro-zone is also picking up more strongly after years of recession in its own euro crisis which is excellent news for the UK too, whether or not we manage to reach a trade agreement with the EU.</p> |             |
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## THE ECONOMY REMAINS STRONG

The Purchasing Managers Indices continue at high levels in the middle 50s in the UK. Many commentators are surprised at the ONS' estimate that manufacturing fell 0.5% in the second quarter against this background of continuing strong PMIs. An upward revision looks likely. Much the same applies to the service sector where the PMIs indicate a stronger performance in Q1 than the 0.2% growth pencilled in by the ONS.

One assumes that the rumoured ONS complicity in the widespread 'establishment' efforts to derail Brexit does not underlie this strange underestimation. More likely the ONS is simply being rather literal in using its partial early survey returns to make its estimates. Economists have generally urged the ONS to 'take a view' based on wider evidence than just these early reports whose coverage is patchy and inadequate. But to no avail. Ironically the ONS seems to fear that to take a view would lay it open to the charge of being political by going beyond what it demonstrate as its 'solid' material; yet to ignore the well-based PMI evidence is to fall well short of its solid material.

Disappointingly for the 'Remoaner' lobby the economy is going well. Employment continues to rise relentlessly, and unemployment keeps on falling, to levels below what was once thought to be 'full employment'; nevertheless real wages are flat which suggests that there is still spare labour capacity, maybe linked to still uncontrolled unskilled immigration. Personal consumption is slowing while business activity is strengthening based on the Brexit devaluation's switching of demand away from consumption to net exports and investment. So much is confirmed by the CBI and Bank of England agent surveys as well as by those PMIs. Goods export volume excluding oil and erratics was up 6.2% on a year earlier in Q2; the equivalent import volume, in spite of strong consumption growth over that period, was up only 4.5%. The terms of trade did not change, implying that both export and import prices rose by the same in response to the devaluation. There has also been an improvement of £2.4 billion per quarter in the balance of trade in services. This is showing clear progress in Britain's external accounts.

Here are the recent figures for the three main sectors of the economy:

|  | Q1   | Q2   | Latest     |
|--|------|------|------------|
| ONS GDP estimate (% change quarter on quarter) | 0.2  | 0.3  |            |
| Manufacturing                                  | 0.3  | -0.6 |            |
| Services                                       | 0.1  | 0.5  |            |
| Construction                                   | 1.1  | -1.3 |            |
| PMI average (rounded to nearest 0.5)           |      |      |            |
| Manufacturing                                  | 54.5 | 56.0 | 57.0 (Aug) |
| Services                                       | 54.5 | 54.5 | 54.0 (Jul) |
| Construction                                   | 52.0 | 54.5 | 52.0 (Jul) |

**Table 1: Summary of Forecast**

|                                   | 2014  | 2015   | 2016  | 2017  | 2018  | 2019  | 2020 |
|-----------------------------------|-------|--------|-------|-------|-------|-------|------|
| GDP Growth <sup>1</sup>           | 2.9   | 2.2    | 2.3   | 2.1   | 2.6   | 2.9   | 3.5  |
| Inflation CPI                     | 1.7   | 0.2    | 1.2   | 2.6   | 2.6   | 3.0   | 3.0  |
| Wage Growth                       | 1.2   | 2.4    | 2.9   | 2.6   | 3.6   | 4.7   | 4.5  |
| Unemployment (Mill.) <sup>2</sup> | 1.1   | 0.8    | 0.7   | 0.8   | 0.8   | 0.7   | 0.7  |
| Exchange Rate <sup>3</sup>        | 87.1  | 91.6   | 80.4  | 76.4  | 75.1  | 74.6  | 74.4 |
| 3 Month Interest Rate             | 0.6   | 0.6    | 0.4   | 0.9   | 1.5   | 2.5   | 3.0  |
| 5 Year Interest Rate              | 1.8   | 1.3    | 0.9   | 1.1   | 2.0   | 2.9   | 3.0  |
| Current Balance (£bn)             | -99.9 | -103.7 | -89.0 | -63.7 | -44.9 | -14.4 | 0.5  |
| PSBR (£bn)                        | 83.3  | 71.2   | 69.0  | 53.4  | 44.8  | 37.2  | 12.8 |

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

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

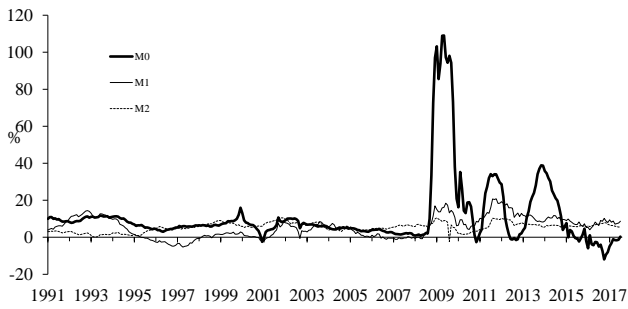
<sup>3</sup>Sterling effective exchange rate, Bank of England Index (2005 = 100)

One does not have to be a slavish believer in the PMI indices to think that the ONS' volatile estimates across the two quarters look quite implausible. They are of course based on quite patchy and low coverage this close to events and this is why they must be quite suspect compared with the PMIs which survey a broad spectrum of firms every month. When one combines this with the evidence of the labour market which continues to progress steadily upwards, the suspicions multiply.

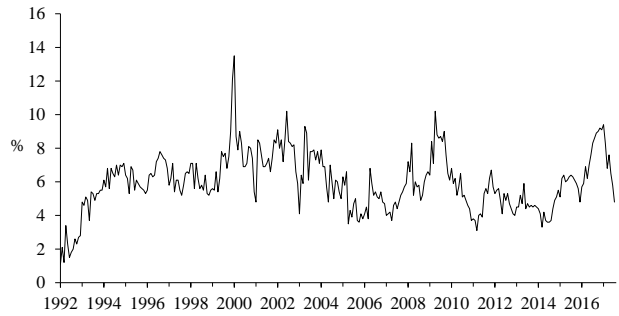
An encouraging factor in the picture is the recovery in the euro-zone economy after years of euro crisis. The PMIs in the zone are at similar levels to ours. As the government has frequently said it is certainly not in our interests to have a weak EU. This remains the market for just over 40% of our exports and will continue to be so whether we sign a free trade agreement with the EU or not. What many have not really grasped is that the EU's tariffs on our manufactures average low percentages — around the 3.5% mark. We can easily absorb them especially with sterling about 15% lower due to the Brexit devaluation. The EU cannot by international law do anything to interfere with the flow of our exports, whether by non-tariff barriers, old-fashioned non-computerised customs procedures or refusing to sign mutual agreements to standards. All such discrimination is outlawed by WTO agreements to which the EU is a signatory. The EU fails in many respects, but law-abiding it certainly is and will surely remain.

More puzzlingly EU exporters to us will run into quite severe competition if we leave without any sort of EU trade agreement. We will sign free trade deals with many other countries which will send us goods at much lower prices than the current EU-protected ones. EU exporters will not just face the same low tariffs which we will no doubt proceed to levy on them if there is no deal; they will also face much tougher competition which will force them to lower their prices sharply. Why are these exporters not putting pressure on the EU to sign a trade deal with us that might defer this pressure or even stop it completely in some sectors where current EU protection could be prolonged by agreement? It is hard to know, though no doubt it is bound up with EU politics; but from our viewpoint it is their problem, just as no

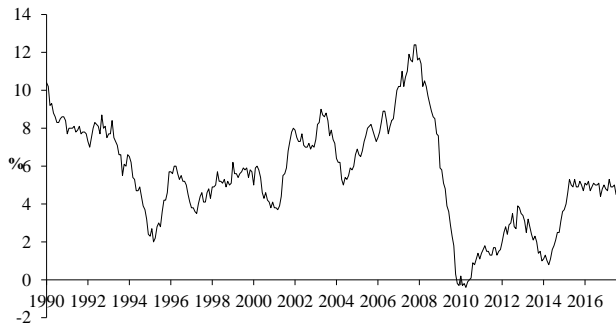
**U.S.: Growth in Monetary Aggregates (Yr - on - Yr)**



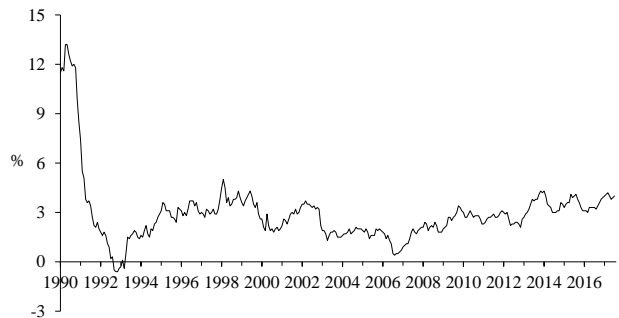
**UK: Notes and Coins in Circulation Growth**



**Eurozone M3 Growth**



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



deal will also abort any 'divorce payment' we might make for goodwill.

As for the French they are presumably resigned to the problems for their farmers when we leave the Common Agricultural Policy and abandon its associated high food tariffs. Our own farmers are benefiting from the Brexit devaluation, and are mostly highly efficient, with the potential to raise productivity further still; while smaller farmers who look after the UK rural environment will receive direct government transfers at much lower cost than the CAP.

Gradually these facts are emerging blinking from the statistical and political discussion fog fostered by our 'Remoaner' lobby. The Brexit process continues to be an extraordinary episode in which the common-sense economics of free trade and competition is repeatedly denied by producer interests and their allies. Usually producer interests win these contests by virtue of their lobbying and spending power. However this is an episode unusual in the extent to which ordinary voter/consumers have been informed and empowered by a referendum debate; for

politicians it is an unhappy contest between the producers who wield indirect power over them and the voters to whom they are directly responsible at the ballot box.

According to the favourite Remoaner organs, the FT and The Economist, UK business is traumatised by the uncertainty of Brexit. Yet business constantly absorbs uncertainty far worse than that surrounding Brexit where the uncertainty merely ranges from the status quo ('Soft Brexit') to the substantial gains from 'Clean Brexit' as envisaged by the government's free trade agenda. Business must worry far more about whether the euro-zone will implode, or China will have a debt crisis, or the N Korean situation will lead to a regional war, to name but a few of its headaches. To boot business is currently enjoying the profit gains from the large Brexit devaluation.

The boring truth is that the UK economy is continuing to grow at a moderate pace in the 2–3% range as it has done since the financial crisis ended a few years back. However once Brexit policies are finally in place it promises to grow significantly faster as free trade and its implied competition work through.

## FOCUS ON JAPAN

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Francesco Perugini

### Economic growth amid rising political crisis

According to the preliminary estimate by the Government, the Japanese economy grew for the sixth straight quarter in April–June 2017, with real GDP up by 1.0% quarter-on-quarter (q-o-q). The last time the economy expanded for six consecutive quarters was between January 2005 and June 2006. Economists had been forecasting a relatively strong performance for the world’s third-largest economy, though the actual numbers were better than expected. However, the data are preliminary and likely to be revised.

The growth was largely driven by personal consumption and plant and equipment investment, both being pillars of domestic demand. Although both had recorded slight growth previously, their growth rate in the April–June quarter was the highest since the January–March quarter of 2014, just before the consumption tax hike that year. As for private consumption, which grew by 0.9% q-o-q, consumers replaced the automobiles and electric household appliances they had purchased amid pump-priming measures taken to deal with the financial crisis following the 2008 collapse of US investment bank Lehman Brothers. Due to favourable weather conditions, the travel, leisure and eating-out industries also showed brisk performance. “Consumer sentiment has been improving on the back of stabilizing perishable prices and wage growth that has been spreading to small and mid-sized companies”, said Hidenobu Tokuda, senior economist at the Mizuho Research Institute. In the plant and equipment investment field, businesses actively introduced labour-saving machines as a measure to deal with a manpower shortage. The construction boom ahead of the 2020 Tokyo Olympic and Paralympics Games helped push up investment.

Preparations for the Games may have helped to contribute to growth in public investments too, as they registered a dramatic hike of 5.1% q-o-q. This is also thanks to infrastructure investment allotted in the second supplementary budget for fiscal 2016. Net exports, on the other hand, shaved off 0.3 percentage points from the real GDP growth for the April–June 2017 quarter, a first negative contribution in the last 7 quarters. Indeed, since the start of the expansion foreign trade had done most of the heavy lifting aided by a broadly recovering global economy and the weak yen, which makes Japanese cars, electronics and other products more competitive when sold abroad.

The rise in domestic demand resulted from the overlap of various favourable conditions. So no optimism is warranted as to whether this will continue. Indeed, economists remain sceptical about the sustainability of the robust growth seen in the previous quarter, especially in consumption as wage growth still lacks strength. Even the government remain

cautious about the future. “Japan’s economy remains on a moderate recovery path,” Economic and Fiscal Policy Minister Toshiimitsu Motegi told reporters after the GDP release. Motegi said continued improvements in employment and income conditions will likely benefit the economy, acknowledging that consumption has yet to fully recover.

Also Bank of Japan (BOJ) Governor Haruhiko Kuroda believes that the recent pace of growth is probably unsustainable. “I think 1% growth is excellent but we don’t think 1% growth can be sustained. Around 0.5% growth is likely,” he said in an interview after the annual gathering of monetary policy makers at Jackson Hole, Wyoming. “I think for some time we have to continue this extremely accommodative monetary policy”, he said and noted that Japanese businesses and labour unions still exhibit a “deflationary mindset,” which is crimping price gains. Like his US and European colleagues, Kuroda is grappling with an economy that is expanding but still failing to generate significant wage gains and a healthy level of inflation. At its most recent policy meeting in July, the BOJ pledged to forge on with its program of asset purchases and yield-curve control after delaying the projected timing for reaching its 2% percent price target for a sixth time. Yet the BOJ risks getting out of step with its developed-world peers as it presses on with its unprecedented monetary stimulus while the Fed raises rates and the ECB debates how to start normalizing policy.

Nevertheless, the upbeat data are bound to be welcome news for Prime Minister Shinzo Abe, who has been facing growing criticism over a lack of progress on promised structural reforms and a recent severe political scandal, which is raising questions over the future of Abenomics, a package of reforms and government spending coupled with loose monetary policy from the BOJ. Public backlash over suspected cronyism on the part of Abe has pushed support for the 62 year-old to under 30%, his lowest level ever. Since May, the Liberal Democratic Party head has been accused of helping Kake Gakuen, an educational institution headed by a longtime friend of Abe, win approval for a veterinary school in a special economic zone. Abe has denied granting any favours but the affair — his second school scandal this year — still cost the ruling LDP a historic defeat in July’s Tokyo assembly election. Abe’s popularity has also been weighed down by general disillusionment with his leadership and issues at the defense ministry. Last month, former Defense Minister Tomomi Inada resigned over concerns she helped conceal records that exposed the dangers faced by Japanese peacekeepers in South Sudan.

“The scandal is a serious threat to Abenomics because the approval rate fell even before important reforms were implemented,” said Kohei Iwahara, economist at Natixis

Japan Securities. “The government needs a high approval rate from the citizens to implement the necessary reforms, which could inflict pains to its citizens through job losses.” Indeed, Abe now has less ability to move controversial structural reforms through the political process, explained Tobias Harris, Japan vice president at Teneo Intelligence, a

global advisory firm. “Strong public support gave Abe political capital with which to pursue controversial reforms, but it also made him reluctant to use his political capital lest he risk his public support. Now, with his support falling, it’s that much harder for Abe to take risky policy decisions.”

## MARKET DEVELOPMENTS

For all the talk of ‘normalising’ monetary conditions by the Fed and the ECB, though not the Bank which remains totally wedded to loose money, there is precious little sign of monetary tightening. Instead there is persistent talk, led by the Trump economics team, of loosening bank regulation from its drastic and counter-productively draconian state. This is welcome as in due course it will permit monetary normalisation as well.

Meanwhile the equity market remains in rude health. We expect this to continue against the background of largescale excess capacity in raw materials and the monetary situation above. Bond prices are still supported by the huge quantity of money that central banks have printed; but eventually this will be reversed and so bonds remain a dangerous investment.

**Table 1: Market Developments**

|   | Market Levels |       | Prediction for Aug/Sep 2018 |                     |
|---|---------------|-------|-----------------------------|---------------------|
|   | Jul 29        | Sep 4 | Previous Letter View        | Current Letter View |
| <b>Share Indices</b>                                |               |       |                             |                     |
| UK (FT 100)   | 7368          | 7411  | 11797                       | 11866               |
| US (S&P 500)  | 2472          | 2477  | 3004                        | 3009                |
| Germany (DAX 30)                                    | 12163         | 12102 | 19375                       | 19279               |
| Japan (Tokyo New)                                   | 1621          | 1604  | 1996                        | 1974                |
| <b>Bond Yields (government)</b>                     |               |       |                             |                     |
| UK  | 1.27          | 1.11  | 2.00                        | 2.00                |
| US  | 2.30          | 2.16  | 3.00                        | 3.00                |
| Germany   | 0.54          | 0.37  | 0.80                        | 0.80                |
| Japan   | 0.08          | 0.00  | 0.10                        | 0.10                |
| UK Index Linked                                     | -1.52         | -1.69 | -1.00                       | -1.00               |
| <b>Exchange Rates</b>                               |               |       |                             |                     |
| UK (\$ per £)                                       | 1.31          | 1.30  | 1.26                        | 1.26                |
| UK (trade weighted)                                 | 76.95         | 75.21 | 76.50                       | 76.5                |
| US (trade weighted)                                 | 99.75         | 98.59 | 102.4                       | 102.4               |
| Euro per \$   | 0.85          | 0.84  | 0.92                        | 0.92                |
| Euro per £  | 1.12          | 1.09  | 1.16                        | 1.16                |
| Japan (Yen per \$)                                  | 111.0         | 109.5 | 115.2                       | 115.2               |
| <b>Short Term Interest Rates (3-month deposits)</b> |               |       |                             |                     |
| UK  | 0.28          | 0.27  | 1.50                        | 1.50                |
| US  | 1.34          | 1.32  | 1.50                        | 1.50                |
| Euro  | -0.40         | -0.40 | -0.20                       | -0.20               |
| Japan   | 0.00          | -0.05 | 0.20                        | 0.00                |

**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             | 2.7                    | 2.4       | 55.00                   |          | 63.70  |
| US   | 1.99             | 2.4                    | 2.2       | 16.90                   | 2.76     | 26.25  |
| Germany                                      | 3.30             | 1.6                    | 1.7       | 56.00                   | -6.57    | 56.03  |
| Japan  | 1.90             | 1.1                    | 1.0       | 21.00                   | -2.28    | 22.72  |
| UK indexed <sup>2</sup>                      | -1.52            |                        | 2.4       | 7.00                    |          | 7.72   |
| Hong Kong <sup>3</sup>                       | 2.60             | 6.3                    | 2.2       | -4.00                   | 2.76     | 9.86   |
| Malaysia                                     | 3.30             | 4.8                    | 2.2       | 47.00                   | 2.76     | 60.06  |
| Singapore                                    | 3.50             | 2.0                    | 2.2       | 7.00                    | 2.76     | 17.46  |
| India  | 1.40             | 8.0                    | 2.2       | 23.00                   | 2.76     | 41.36  |
| Korea  | 1.10             | 3.0                    | 2.2       | -20.00                  | 2.76     | -11.94 |
| Indonesia                                    | 2.20             | 5.4                    | 2.2       | 30.00                   | 2.76     | 42.56  |
| Taiwan                                       | 2.80             | 3.4                    | 2.2       | 4.00                    | 2.76     | 29.16  |
| Thailand                                     | 3.20             | 2.6                    | 2.2       | 19.00                   | 2.76     | 29.76  |
| <b>Bonds: Contribution to £ yield of:</b>    |                  |                        |           |                         |          |        |
|  | Redemption Yield | Changing Nominal Rates | Currency  | Total                   |          |        |
| UK   | 1.11             | -8.90                  |           |                         |          | -7.79  |
| US   | 2.16             | -8.40                  | 2.76      |                         |          | -3.48  |
| Germany                                      | 0.37             | -4.30                  | -6.57     |                         |          | -10.50 |
| Japan  | 0.00             | -1.00                  | -2.28     |                         |          | -3.28  |
| <b>Deposits: Contribution to £ yield of:</b> |                  |                        |           |                         |          |        |
|  | Deposit Yield    | Currency               | Total     |                         |          |        |
| UK   | 0.27             |                        | 0.27      |                         |          |        |
| US   | 1.32             | 2.76                   | 4.08      |                         |          |        |
| Euro   | -0.40            | -6.57                  | -6.97     |                         |          |        |
| Japan  | 0.05             | -2.28                  | -2.33     |                         |          |        |

<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(%)**

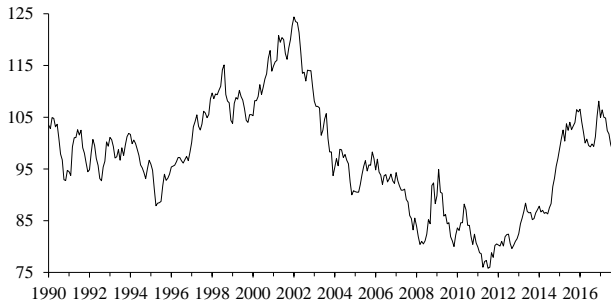
|                          | Sterling Based Investor |              | Dollar Based Investor |              | Euro Based Investor |              |
|--------------------------|-------------------------|--------------|-----------------------|--------------|---------------------|--------------|
|                          | August Letter           | Current View | August Letter         | Current View | August 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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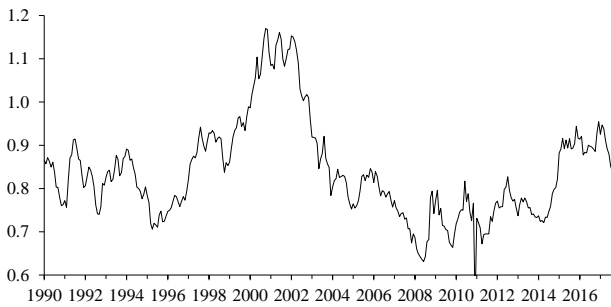
**US : Trade Weighted Index  
(Bank of England 1990 = 100)**



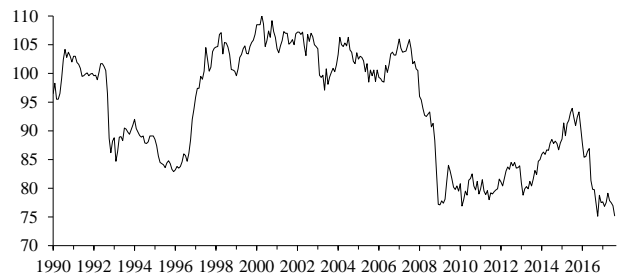
**UK: Dollars Per Pound Sterling**



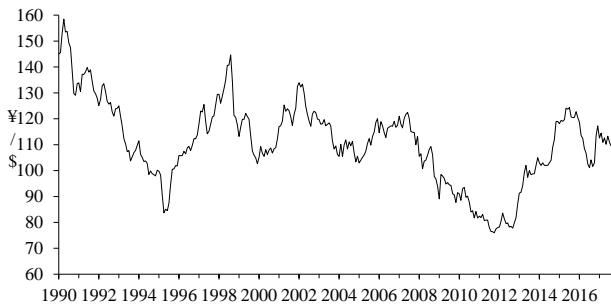
**Euro per US dollar**



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



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

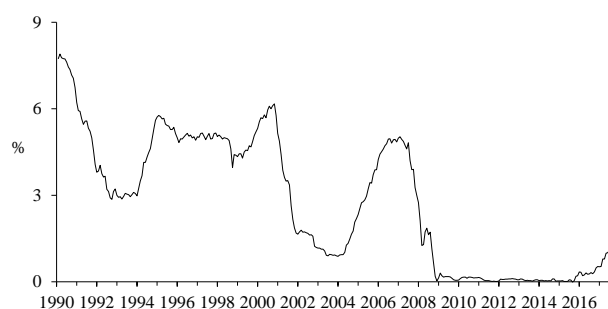


# GOVERNMENT BOND MARKETS

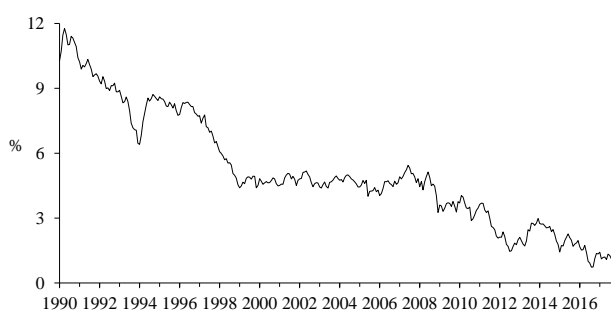
**U.S.: Yield on Long-Term Government Bonds**



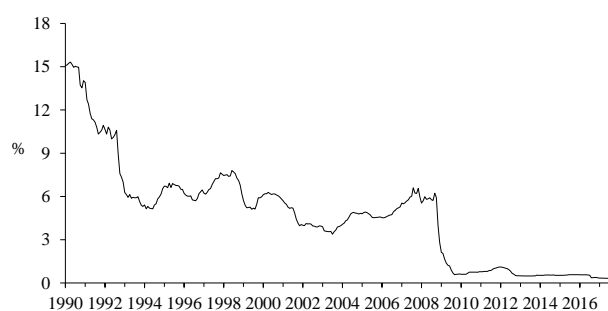
**U.S. : 3-Month Treasury Bill**



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



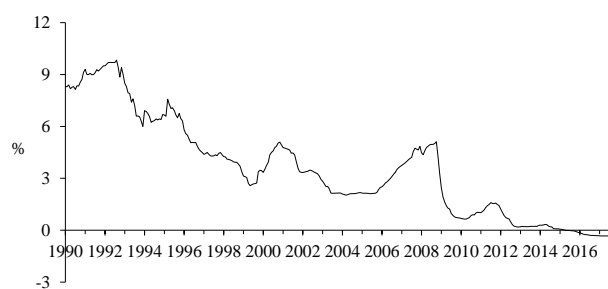
**U.K. : 3-Month Interbank Rate**



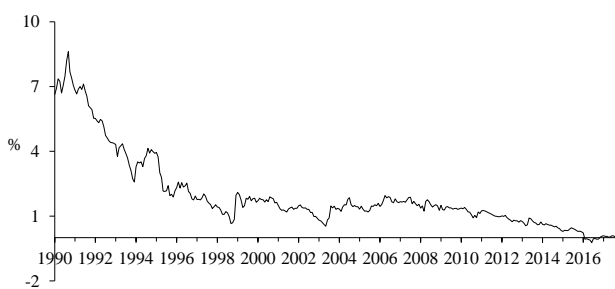
**Germany: Yield on Public Authority Bonds**



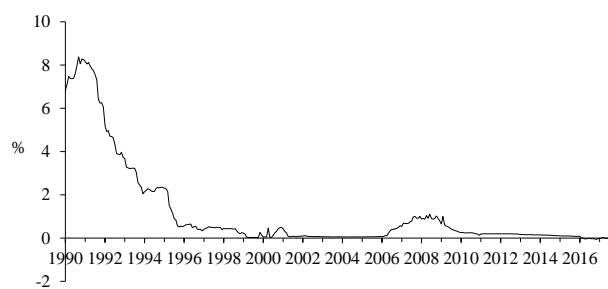
**Germany : 3-Month Interbank Deposit Rate**



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



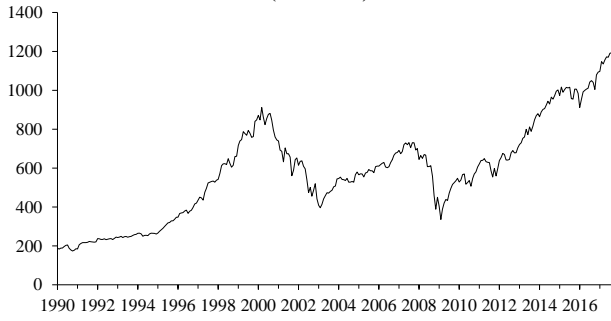
**Japan : 3 Month Money Market Rate**



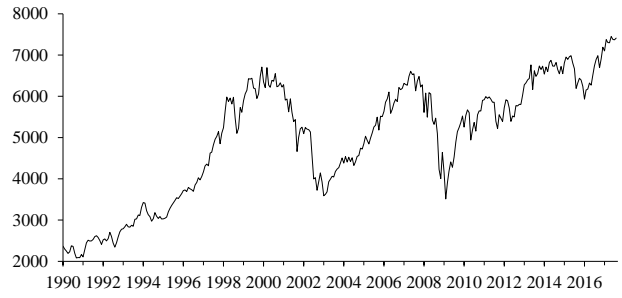
# MAJOR EQUITY MARKETS

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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

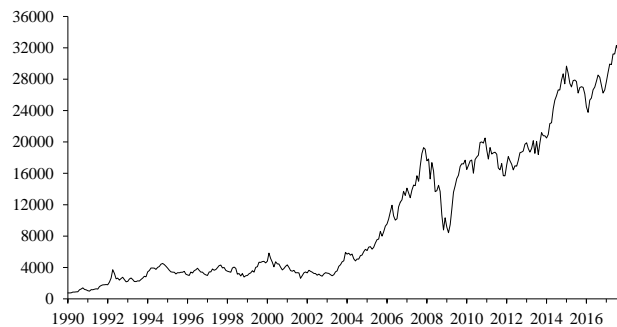
India's economic growth unexpectedly slowed to 5.7% in the quarter ending in June, the slowest pace in three years, underlining the disruption caused by the uncertainty related to the rollout of the goods and services tax (GST), even as the Indian economy is struggling to recover from a shock demonetization. It is believed that destocking ahead of GST implementation and the lingering impact of demonetization has impacted the economy. India's central bank has estimated that 99% of the high denomination banknotes cancelled last year were deposited or exchanged for new currency. The government is criticized for the policy's failure.

The central bank expects gross value added (GVA) to grow at 7.3% in 2017–18, as against 6.3% in 2016–17. GVA, which is arrived at by deducting net indirect tax from GDP, grew 5.6% in the second quarter, the same as in the first quarter. The report flagged risks such as an over-leveraged corporate sector and a stressed banking sector, because they could delay private investment demand revival. It also noted that farm loan waivers could add to upward pressures on inflation and reduce state government capacity to invest on infrastructure. India collected more than \$14bn in sales tax during July, suggesting that its new goods and services levy could provide a significant boost for revenues if early technical glitches could be solved.

India's central bank cut its main lending rate to a six-and-a-half-year low of 6%, down from 6.25%, after a drop in consumer prices and an overall slowdown in economic growth.

As India marked 70 years of independence, its leaders have tried to project India to become forceful and outgoing — hungrily acquisitive of assets and opportunities. Its right-of-centre Prime Minister Modi has pledged to create a “new India” by 2022 even though he has decidedly become more pro-poor than before. As autarky and economic “self-sufficiency” of the past did not work to develop India, the emphasis is on the inclusion of foreign capital and goods and doing away with a crony-capitalist regime that left India's people impoverished and its consumers ripped off. Finance Minister Jaitly did not mince words that industrialists should

India: BSE Sensitive



pay their debtors or cede control of their businesses. Strong bankruptcy laws and its forceful implementation suggests that days of crony capitalism are over. India's parliament has passed a law empowering its central bank to force some of the country's largest companies into bankruptcy proceedings. The move follows last year's overhaul of the bankruptcy code in an attempt to make it faster for creditors to get their money back. The overdue cabinet reshuffle suggests that Prime Minister Modi has rewarded good performing ministers and has given them more responsibilities and has not shied away from wielding axe against those who could not deliver. The cabinet is all set to deliver on the PM's promise to achieve the fastest growing economy in the world.

The stellar run in Indian equities this year has reignited interest in a long-running aim of successive governments: selling off some of the country's biggest companies from state ownership. For years, New Delhi has promised to divest billions of dollars' worth of state enterprises, spanning the national oil and gas company, insurance companies and parts of the railways. A lack of political will, powerful trade unions and, occasionally, adverse market conditions have stymied the plans. This year, however, the conditions are right to hit their disinvestment target for the first time in seven years, not least because Indian stocks have enjoyed a world-beating bull run. The benchmark Sensex index has gained 26% this year, in dollar terms, while the Nifty 50 index is up 28%.

|                         | 15–16 | 16–17 | 17–18 | 18–19 | 19–20 |
|-------------------------|-------|-------|-------|-------|-------|
| GDP (%p.a.)             | 8.0   | 7.1   | 7.0   | 8.0   | 8.1   |
| WPI (%p.a.)             | 5.2   | 4.5   | 3.5   | 4.0   | 4.1   |
| Current A/c(US\$ bill.) | -24.0 | -24.0 | -26.0 | -28.0 | -30.0 |
| Rs./\$(nom.)            | 66.5  | 68.2  | 65.0  | 66.0  | 67.5  |

## China

The pace of Chinese industrial output, retail and housing sales, and fixed-asset investment decelerated in July from the previous month. The economic statistics shows the dilemma for the central government in achieving economic growth targets while clamping down on risky lending. In an effort to rein in a property bubble, Chinese policy makers imposed new measures this year to restrict home purchases in big cities and to raise interest rates charged for buyers.

Value-added industrial output, a rough proxy for economic growth, rose by 6.4% in July from a year earlier, compared with a 7.6% increase in June — the slowest pace in the last five months. Retail sales increased 10.4% in July from a year earlier, slowing from an 11.0% gain in June. The slowdown in July is the result of Beijing’s crackdown on property speculation and rising debt levels. The IMF forecast China’s annual economic growth to average 6.4% in 2018–20. The IMF is predicting that the Chinese economy will expand 6.7% this year. They also warned China about its current credit trajectory as it is dangerous with increasing risks of a disruptive adjustment and has advised the Chinese government not to turn on the credit taps. It is widely believed within the government and multilateral agencies that the debt-fuelled growth model is hard to sustain and has left the economy increasingly overleveraged while delivering a diminished effect on growth.

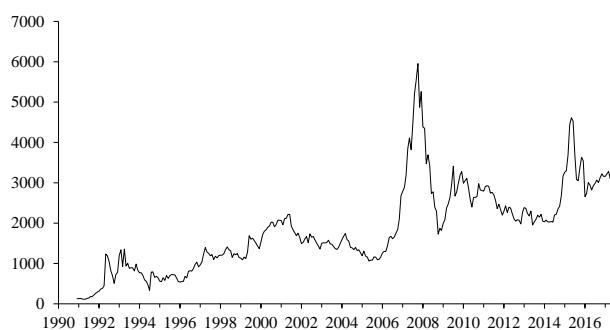
China’s consumer inflation slowed marginally in July, with softer non-food prices signalling that economic activity may be cooling as the government works to reduce debt levels. China’s consumer price index rose 1.4% in July from a year ago, compared with a 1.5% gain in June,

China’s economy is still getting a boost from trade, with exports and imports growing at a moderate pace in July. China’s exports increased 7.2% in July from a year earlier, down from an 11.3% gain in June while imports expanded 11.0% from a year earlier, slower than June’s 17.2% expansion. Exports have now risen for five months in a row on sustained overseas demand. Imports slowed in part due to softer commodity prices, but overall are holding up on the strength of a continuing domestic property boom. The recovery of global economy is expected to hold up China’s exports in the next six months, though the growth rate could be slower.

Many Chinese exporters are feeling the squeeze from a rising yuan this year. The central bank has introduced a new pricing measure that anchors the yuan more closely to the dollar now. This will also help in defending the allegation of keeping its currency artificially weak.

Chinese officials have been cracking down on what they call “irrational” overseas investment since the end of 2016, tightening controls on capital leaving China and scrutinizing some of the country’s most aggressive dealmakers. The new rules could impact China’s investment in the U.S., which

China: SSE Composite Index



Korea: Composite Index



was the largest recipient of China’s foreign direct investment flows last year, taking in \$46 billion, or tripling the 2015 investment. China will restrict surging overseas investment in sectors such as property, hotels, cinema, entertainment and sports teams now.

The currency, which plunged 6.6% in 2016, is up more than 4% against the U.S. dollar since January. China’s central bank has set the yuan’s reference rate at 6.6597, the highest level in nearly a year. The currency may end 2017 at around 6.5 yuan per dollar. After that, China may let the yuan drift lower again as a way to help the economy and squeezed exporters.

|                           | 15  | 16  | 17  | 18  | 19  |
|---------------------------|-----|-----|-----|-----|-----|
| GDP (%p.a.)               | 6.9 | 6.5 | 6.7 | 6.3 | 6.0 |
| Inflation (%p.a.)         | 1.4 | 2.0 | 2.2 | 2.0 | 2.1 |
| Trade Balance(US\$ bill.) | 550 | 510 | 400 | 380 | 350 |
| Rmb/\$ (nom.)             | 6.4 | 6.7 | 6.6 | 6.5 | 6.6 |

## South Korea

So long as the geo-political tensions do not impact the investment by corporates, South Korea’s gross domestic product growth is set to grow 2.8% for 2017. The overall growth is supported by strong investment growth, and as the global macroeconomic outlook brightens, it will support overall growth in 2018 also. Growth in 2018 will be supported by fiscal push as well. The national budget plan estimates a 7.1% rise in total spending for 2018 to 429.0 trillion won (\$380 billion), up from a 3.7% increase in 2017.

Government spending will not increase the fiscal deficit as it is likely to be 1.6% of gross domestic product in 2018, narrower from an expected 1.7% of GDP in 2017. Government debt is expected to edge down to 39.6% of GDP in 2018 from an estimated 39.7% this year, according to the budget estimates.

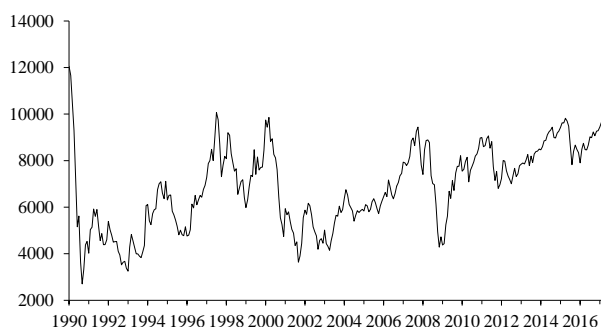
South Korea's government is planning to raise taxes on wealthy individuals and large companies as President Moon Jae-in seeks to fund a massive expansion in public-sector hiring. The government estimates that fulfilling its policy agenda priorities will require an additional \$160 billion in fiscal spending over the course of next five-years. President Moon has promised to create 810,000 public-sector jobs over that time span, including firefighters, policemen and social workers. Under the new tax code, individual rates will increase by 2 percentage points for the two highest tax brackets, to a maximum rate of 42% for those who earn about \$444,000 or more a year. Rates for individuals who earn less than \$270,000 will remain unchanged. Corporate-tax rates, meantime, will rise by 3 percentage points to 25% for companies whose net profit tops about \$180 million a year. Tax rates for businesses earning less will remain the same.

South Korea's consumer price index rose 2.2% from a year earlier in July, with inflation accelerating at a faster pace than expected. The Bank of Korea expects inflation to average 1.9% this year and next, nearing its annual target of 2%. The Bank of Korea is likely to hold interest rates steady through the first half of 2018 and may move to raise rates in the second half of 2018. The bank has kept the policy rate unchanged at a record-low 1.25% since June in 2016.

South Korea's exports expanded for a ninth straight month in July on brisk demand for data-storage devices, memory chips and other goods overseas, as the world economy gains strength. Shipments overseas rose nearly 20% year over year in July. Exports to nearly all major global markets — including the U.S., the EU and China — rose.

U. S. and South Korean negotiators will meet in September, in Seoul, to potentially amend a five-year-old trade agreement, which President Donald Trump has called "horrible" and blamed for a larger American trade deficit. The agreement, known as Korus FTA — which has been in place since 2012 — has been a source of tension between the U.S. and South Korea. Mr. Trump has said he would either renegotiate or terminate the deal, which he says has led to American job losses. The U.S.'s overall deficit with Korea has increased since the agreement took effect. The U.S. imported \$69.9 billion in goods from South Korea last year but exported only \$42.3 billion.

Taiwan: Weighted TAIEX Price Index



|                         | 15   | 16   | 17   | 18   | 19   |
|-------------------------|------|------|------|------|------|
| GDP (%p.a.)             | 2.6  | 2.8  | 2.8  | 2.5  | 2.5  |
| Inflation (%p.a.)       | 0.7  | 1.0  | 2.0  | 1.8  | 1.8  |
| Current A/c(US\$ bill.) | 90.0 | 88.0 | 88.0 | 86.0 | 80.0 |
| Won/\$ (nom.)           | 1180 | 1160 | 1125 | 1140 | 1145 |

## Taiwan

Taiwan has revised upward its economic growth for 2017 to 2.11% from the 2.05%. Since 2014, Taiwan's full-year growth was struggling to grow more than 2% a year. Solid demand for the electronic components emanating from the 'Internet of Things' will see further gains in 2018. The government has forecast 2.27% growth for 2018.

Taiwan's manufacturing sector expanded at its fastest rate in five months in August as new orders were boosted by a sharp increase in new export business. The Nikkei-Markit purchasing managers' index for manufacturing in Taiwan rose to 54.3 in August, up from 53.6 in the previous month, remaining above the 50 level separating expansion from contraction. The August reading was at its highest since April, when it came in at 54.4.

In July, exports of goods and services grew by 4.97% year on year, driven mainly by the foreign demand for parts of electronic products, basic metals and machinery. Imports also increased by 4.37% year on year. The manufacturing sector grew by 3.81% as the retail sector grew 3% year on year. It's projected that the real exports of goods and services will grow by 4.02% in 2017.

Inflation remained subdued and the central bank is going to keep rates unchanged. In the first ever release of minutes of the meeting of the central bank, several board members were concerned about the impact of foreign fund flows on the economy, high overseas ownership of Taiwanese stocks and adverse impact of rapid currency appreciation.

|                         | 15   | 16   | 17   | 18   | 19   |
|-------------------------|------|------|------|------|------|
| GDP (%p.a.)             | 0.8  | 1.4  | 2.5  | 2.6  | 2.3  |
| Inflation (%p.a.)       | 0.7  | 1.0  | 1.0  | 1.0  | 1.2  |
| Current A/c(US\$ bill.) | 60.0 | 64.0 | 68.0 | 68.0 | 70.0 |
| NT\$/\$(nom.)           | 32.8 | 32.5 | 32.0 | 32.0 | 32.0 |

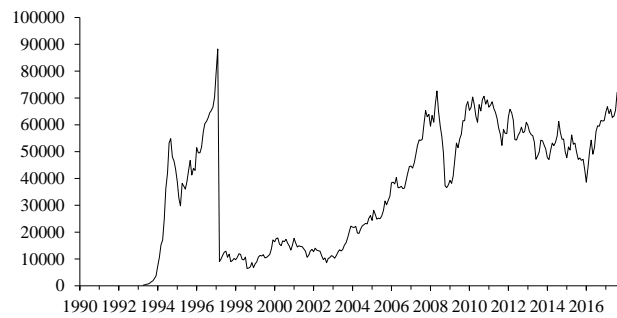
## Brazil

Notwithstanding the political scandals of the government of President Michel Temer, Brazil's gross domestic product expanded 0.2% in the second quarter compared with the previous three months, the second consecutive period of quarterly growth. The growth has come from a rebound in the agricultural sector and a recovery in private consumption as inflation got tamed and real wages increased. This brings to an end the worst recession in the history of Brazil. Its economy has shrunk by 7.4% in the past two years and the government is wrestling with ballooned budget deficits. The government is struggling to narrow a budget gap that equals close to 10% of the country's output.

Lower-than-expected tax revenues forced the government to loosen its goal for the primary budget deficit, or the public-sector shortfall before debt payments. The deficit was revised to 159 billion reals (\$50.2 billion) for 2017 and 2018, up from 139 billion and 129 billion, respectively. This implies that Brazil's government debt burden at 73.1% of gross domestic product, is set to rise fast in coming years.

The government had already responded by opening up many sectors of the economy to more foreign investment, and it is now auctioning off highways, ports, and airport concessions. The privatization push raises hopes that Mr. Temer's market-oriented economic agenda will go ahead. The administration announced plans to grant licenses for the

**Brazil: Bovespa**



development of oil and gas fields, and sell airports in Brazil's agricultural hinterlands, the busy and outdated Congonhas airport in São Paulo, the National Lottery, seaports, highways, power plants and the national mint. The government said it is hoping to raise some \$14 billion as the global economy picks up steam.

The Brazilian real appreciated against the dollar, and the benchmark Ibovespa stock market is approaching an all-time high.

|                         | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| GDP (%p.a.)             | -3.8      | -3.6      | 0.5       | 1.5       | 3.0       |
| Inflation (%p.a.)       | 10.7      | 6.3       | 4.4       | 4.5       | 4.0       |
| Current A/c(US\$ bill.) | -70.0     | -28.0     | -25.0     | -25.0     | -32.0     |
| Real/\$ (nom.)          | 3.9       | 3.5       | 3.2       | 3.2       | 3.2       |

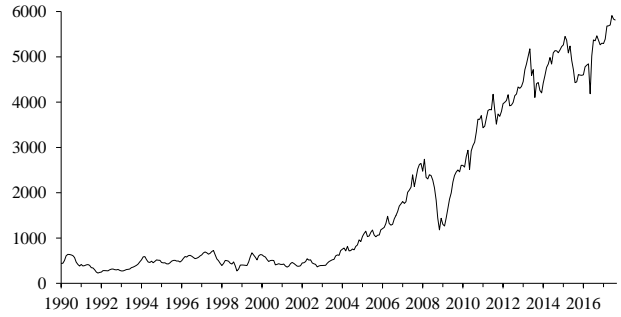


## Other Emerging Markets

**Hong Kong: FT-Actuaries**



**Indonesia: Jakarta Composite**



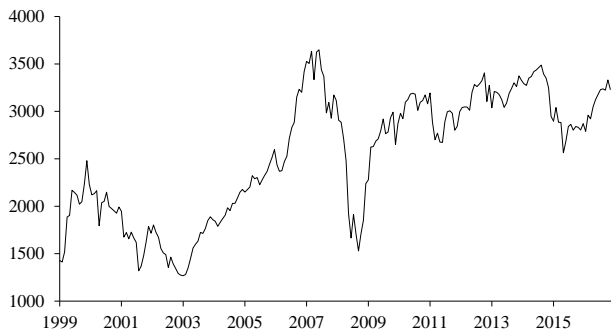
**Malaysia: FT-Actuaries  
(US\$ Index)**



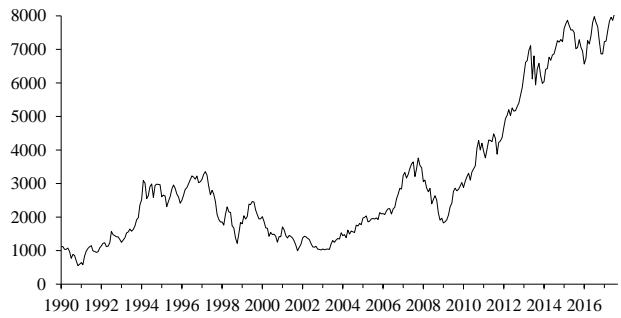
**Thailand: Composite Index**



**Singapore: Straits Times Index**



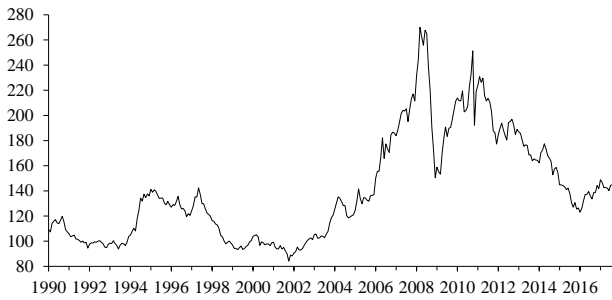
**Philippines: Manila Composite**



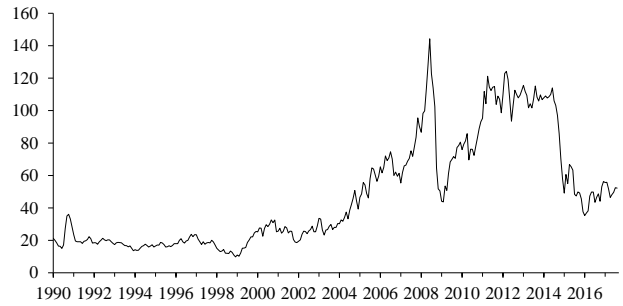
# COMMODITY MARKETS

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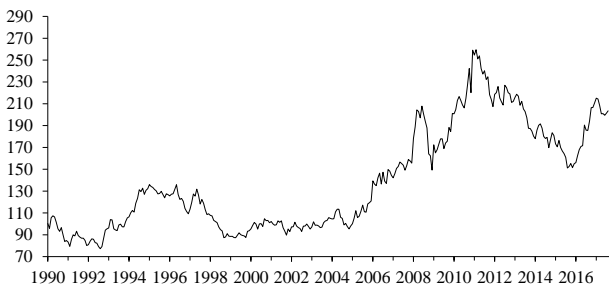
**Commodity Price Index (Dollar)**  
(Economist, 2000=100)



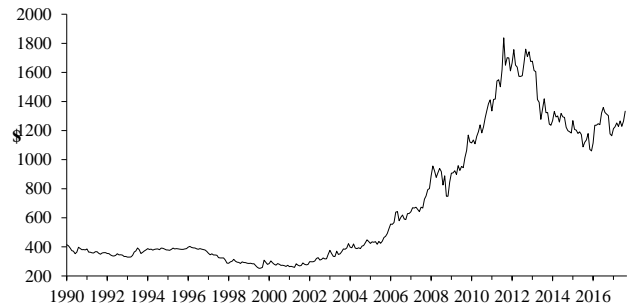
**Oil Price: North Sea Brent (in Dollars)**



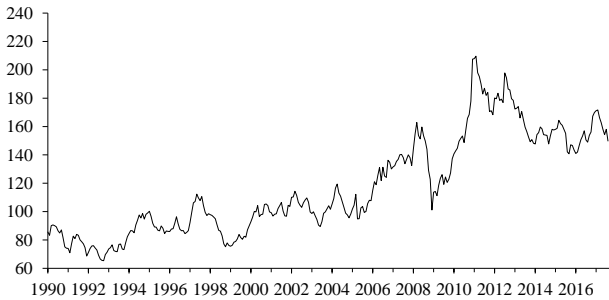
**Commodity Price Index (Sterling)**  
(Economist, 2000=100)



**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><br>(CPI) | Short Dated<br>(5 Year)<br>Interest Rates | 3 Month<br>Int. Rates | Nominal<br>Exchange<br>Rate (2005=100) <sup>2</sup> | Real Exchange<br>Rate <sup>3</sup> | Real 3 Month<br>Int. Rates % <sup>4</sup> | Inflation<br>(RPIX) | Real Short<br>Dated Rate of<br>Interest <sup>5</sup> |
|--------|-----------------------------------|---|-----------------------|---|------------------------------------|---|---------------------|--|
| 2015   | 0.2                               | 1.3                                       | 0.6                   | 91.6  | 91.6                               | 0.5                                       | 1.0                 | -1.0   |
| 2016   | 1.2                               | 0.9                                       | 0.4                   | 81.5  | 80.4                               | -1.6                                      | 2.1                 | -1.5   |
| 2017   | 2.6                               | 1.1                                       | 0.9                   | 77.8  | 76.4                               | -1.7                                      | 3.2                 | -1.7   |
| 2018   | 2.6                               | 2.0                                       | 1.5                   | 76.1  | 75.1                               | -1.3                                      | 3.1                 | -1.0   |
| 2019   | 3.0                               | 2.9                                       | 2.5                   | 74.7  | 74.6                               | -0.1                                      | 3.4                 | 0.0  |
| 2020   | 3.0                               | 3.0                                       | 3.0                   | 73.4  | 74.4                               | 0.5                                       | 3.5                 | 0.0  |
| 2016:1 | 0.3                               | 0.9                                       | 0.7                   | 87.2  | 86.8                               | -1.1                                      | 1.4                 | -0.7   |
| 2016:2 | 1.3                               | 0.9                                       | 0.5                   | 81.8  | 81.2                               | -1.3                                      | 2.2                 | -0.9   |
| 2016:3 | 1.5                               | 0.9                                       | 0.2                   | 79.4  | 77.8                               | -1.7                                      | 2.3                 | -1.0   |
| 2016:4 | 1.8                               | 0.9                                       | 0.2                   | 77.6  | 75.9                               | -1.8                                      | 2.5                 | -1.2   |
| 2017:1 | 2.1                               | 1.0                                       | 0.5                   | 79.0  | 77.4                               | -1.6                                      | 2.8                 | -1.9   |
| 2017:2 | 2.6                               | 1.2                                       | 0.5                   | 78.7  | 77.4                               | -1.5                                      | 3.2                 | -1.9   |
| 2017:3 | 2.8                               | 1.2                                       | 1.0                   | 76.9  | 75.4                               | -1.5                                      | 3.3                 | -1.8   |
| 2017:4 | 3.0                               | 1.2                                       | 1.5                   | 76.6  | 75.4                               | -1.5                                      | 3.5                 | -1.3   |
| 2018:1 | 2.4                               | 1.5                                       | 1.3                   | 76.8  | 75.4                               | -1.5                                      | 3.0                 | -1.5   |
| 2018:2 | 2.4                               | 2.0                                       | 1.5                   | 76.5  | 75.4                               | -1.4                                      | 3.0                 | -1.0   |
| 2018:3 | 2.8                               | 2.0                                       | 1.5                   | 75.3  | 74.4                               | -1.5                                      | 3.3                 | -1.0   |
| 2018:4 | 2.8                               | 2.5                                       | 1.5                   | 75.7  | 75.4                               | -1.5                                      | 3.3                 | -0.5   |

<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<br>Earnings<br>(1990=100) <sup>1</sup> | Wage<br>Growth <sup>2</sup> | Unemployment (New<br>Basis)<br>Percent <sup>3</sup> | Millions | Real Wage<br>Rate <sup>4</sup><br>(1990=100) |
|--------|--|-----------------------------|---|----------|--|
| 2015   | 247.1  | 2.4                         | 2.3   | 0.8      | 141.1  |
| 2016   | 254.3  | 2.9                         | 2.1   | 0.7      | 143.5  |
| 2017   | 260.8  | 2.6                         | 2.2   | 0.8      | 146.3  |
| 2018   | 270.1  | 3.6                         | 2.1   | 0.8      | 150.8  |
| 2019   | 282.7  | 4.7                         | 2.0   | 0.7      | 155.6  |
| 2020   | 295.3  | 4.5                         | 1.9   | 0.7      | 159.5  |
| 2016:1 | 252.0  | 2.1                         | 2.1   | 0.7      | 143.2  |
| 2016:2 | 252.1  | 2.5                         | 2.2   | 0.8      | 142.7  |
| 2016:3 | 254.4  | 2.4                         | 2.2   | 0.8      | 143.5  |
| 2016:4 | 254.3  | 2.5                         | 2.3   | 0.8      | 142.5  |
| 2017:1 | 257.7  | 2.3                         | 2.2   | 0.8      | 143.8  |
| 2017:2 | 259.8  | 3.1                         | 2.2   | 0.8      | 144.6  |
| 2017:3 | 261.9  | 3.0                         | 2.2   | 0.8      | 145.0  |
| 2017:4 | 263.4  | 3.6                         | 2.2   | 0.8      | 144.6  |
| 2018:1 | 266.0  | 3.2                         | 2.1   | 0.8      | 145.0  |
| 2018:2 | 267.9  | 3.1                         | 2.1   | 0.8      | 145.6  |
| 2018:3 | 271.4  | 3.6                         | 2.1   | 0.8      | 146.2  |
| 2018:4 | 275.0  | 4.4                         | 2.0   | 0.7      | 147.0  |

<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      |
|---------|-------------------|----------------------|--------------------------------------|--|---|--------------------------|----------|
| 2015    | 156.5             | 749593.1             | 430478.9                             | 302953.3   | 196562.0                                  | -50539.3                 | 129861.8 |
| 2016    | 159.4             | 763130.9             | 440238.4                             | 297248.0   | 198473.7                                  | -55145.2                 | 117683.9 |
| 2017    | 163.1             | 781039.6             | 458510.3                             | 276002.6   | 201835.6                                  | -31228.2                 | 124080.0 |
| 2018    | 167.4             | 801728.0             | 469801.9                             | 276816.4   | 205872.3                                  | -23275.3                 | 127485.1 |
| 2019    | 172.2             | 824788.8             | 481547.0                             | 275786.6   | 209989.8                                  | -11175.3                 | 131356.0 |
| 2020    | 178.2             | 853457.0             | 493585.6                             | 287525.6   | 214189.6                                  | -5675.3                  | 136174.4 |
| 2015/14 | 2.2               |                      | 1.6                                  | 3.8  | 1.1                                       |                          | -2.3     |
| 2016/15 | 2.3               |                      | 3.3                                  | -6.3   | 1.0                                       |                          | -3.7     |
| 2017/16 | 2.1               |                      | 1.3                                  | 0.5  | 0.9                                       |                          | 3.5      |
| 2018/17 | 2.6               |                      | 1.9                                  | 0.8  | 1.0                                       |                          | 2.7      |
| 2019/18 | 2.9               |                      | 2.2                                  | -0.6   | 1.2                                       |                          | 3.0      |
| 2020/19 | 3.5               |                      | 2.3                                  | 3.9  | 1.9                                       |                          | 3.7      |
| 2016:1  | 158.1             | 189138.4             | 108678.4                             | 72398.4  | 50736.1                                   | -13542.0                 | 29132.6  |
| 2016:2  | 158.9             | 190275.7             | 109825.3                             | 73785.0  | 48907.3                                   | -12813.4                 | 29428.6  |
| 2016:3  | 159.7             | 191226.4             | 110456.6                             | 75298.0  | 49388.4                                   | -16711.1                 | 27205.5  |
| 2016:4  | 160.8             | 192490.5             | 111278.1                             | 75766.5  | 49441.8                                   | -12078.7                 | 31917.3  |
| 2017:1  | 161.3             | 193068.3             | 110289.9                             | 73007.2  | 51174.2                                   | -10116.5                 | 31287.1  |
| 2017:2  | 162.2             | 194226.4             | 111206.1                             | 74520.6  | 49141.5                                   | -10103.9                 | 30538.0  |
| 2017:3  | 163.3             | 195469.2             | 111967.0                             | 75369.8  | 49891.8                                   | -11094.1                 | 30664.8  |
| 2017:4  | 164.2             | 196638.6             | 112632.2                             | 75930  | 50099.3                                   | -10691.5                 | 31330.6  |
| 2018:1  | 165.6             | 198242.7             | 112567.2                             | 73572.7  | 51892.3                                   | -8179.1                  | 31610.3  |
| 2018:2  | 166.6             | 199460.3             | 113264.8                             | 76217.0  | 49423.6                                   | -7778.1                  | 31666.7  |
| 2018:3  | 167.2             | 200136.3             | 113966.8                             | 74803.9  | 50232.4                                   | -7096.8                  | 31769.2  |
| 2018:4  | 168.5             | 201737.9             | 114673.1                             | 76633.7  | 50696.1                                   | -8167.1                  | 32097.0  |

<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          |                        |            |                     |                        |
| 2015   | 4.6                     | 1533.1                 | 71.2       | 52.0                | -103.7                 |
| 2016   | 4.3                     | 1592.4                 | 69.0       | 52.3                | -89.0                  |
| 2017   | 3.2                     | 1662.4                 | 53.4       | 55.7                | -63.7                  |
| 2018   | 2.5                     | 1756.4                 | 44.8       | 61.6                | -44.9                  |
| 2019   | 2.0                     | 1861.6                 | 37.2       | 66.6                | -14.4                  |
| 2020   | 0.7                     | 1477.6                 | 12.8       | 51.5                | 0.5                    |
| 2016:1 | -0.1                    | 384.6                  | -0.5       | 13.1                | -33.7                  |
| 2016:2 | 5.8                     | 392.0                  | 22.9       | 13.1                | -14.0                  |
| 2016:3 | 2.4                     | 394.5                  | 9.5        | 12.9                | -13.1                  |
| 2016:4 | 5.8                     | 402.2                  | 23.2       | 13.0                | -28.2                  |
| 2017:1 | 4.1                     | 403.3                  | 16.6       | 13.1                | -18.4                  |
| 2017:2 | 3.0                     | 407.5                  | 12.2       | 13.2                | -17.6                  |
| 2017:3 | 3.2                     | 412.4                  | 13.1       | 13.7                | -17.2                  |
| 2017:4 | 3.1                     | 419.3                  | 13.1       | 14.3                | -10.4                  |
| 2018:1 | 3.6                     | 423.3                  | 15.1       | 14.4                | -15.3                  |
| 2018:2 | 2.4                     | 429.2                  | 10.2       | 14.9                | -13.8                  |
| 2018:3 | 2.6                     | 434.9                  | 11.3       | 15.1                | -10.1                  |
| 2018:4 | 2.6                     | 442.2                  | 11.4       | 15.7                | -5.7                   |

<sup>1</sup> GDP at market prices (Financial Year)

## WORLD FORECAST DETAIL

### Growth Of Real GNP

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | 1.5  | 2.4  | 2.4  | 2.1  | 2.1  | 2.4  |
| U.K.    | 2.2  | 2.9  | 2.2  | 2.3  | 2.1  | 2.6  |
| Japan   | 1.4  | -0.1 | 0.5  | 1.0  | 1.4  | 1.1  |
| Germany | 0.3  | 1.6  | 1.7  | 1.8  | 1.6  | 1.6  |
| France  | 0.7  | 0.2  | 1.1  | 1.4  | 1.4  | 1.5  |
| Italy   | -1.7 | -0.3 | 0.8  | 1.1  | 0.9  | 0.9  |

### Growth Of Consumer Prices

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | 1.5  | 1.6  | 0.1  | 1.3  | 2.4  | 2.2  |
| U.K.    | 2.3  | 1.7  | 0.2  | 1.2  | 2.6  | 2.6  |
| Japan   | 0.4  | 2.7  | 0.8  | 0.2  | 0.7  | 1.0  |
| Germany | 1.5  | 0.9  | 0.3  | 0.5  | 1.8  | 1.7  |
| France  | 0.9  | 0.5  | 0.0  | 0.4  | 1.3  | 1.3  |
| Italy   | 1.2  | 0.2  | 0.1  | 0.2  | 1.4  | 1.3  |

### Real Short-Term Interest Rates

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | -1.5 | -0.1 | -1.1 | -1.4 | -1.1 | -0.4 |
| U.K.    | -0.8 | -2.2 | -1.0 | -1.6 | -1.7 | -1.3 |
| Japan   | -2.5 | -0.6 | 0.0  | -0.7 | -1.0 | -1.5 |
| Germany | -0.6 | -0.2 | -0.6 | -2.0 | -2.0 | -2.2 |
| France  | -0.2 | 0.1  | -0.5 | -1.5 | -1.6 | -1.8 |
| Italy   | 0.1  | 0.0  | -0.3 | -1.6 | -1.6 | -1.9 |

### Nominal Short-Term Interest Rates

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | 0.1  | 0.0  | 0.2  | 1.0  | 1.1  | 1.6  |
| U.K.    | 0.6  | 0.6  | 0.6  | 0.4  | 0.9  | 1.5  |
| Japan   | 0.2  | 0.2  | 0.2  | 0.0  | 0.0  | 0.0  |
| Germany | 0.3  | 0.1  | -0.1 | -0.2 | -0.3 | -0.2 |
| France  | 0.3  | 0.1  | -0.1 | -0.2 | -0.3 | -0.2 |
| Italy   | 0.3  | 0.1  | -0.1 | -0.2 | -0.3 | -0.2 |

### Real Long-Term Interest Rates

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | 1.6  | 0.7  | 0.3  | 0.3  | 0.5  | 1.0  |
| U.K.    | -0.8 | -0.7 | -1.0 | -1.5 | -1.7 | -1.0 |
| Japan   | -0.8 | -1.1 | -1.3 | -1.2 | -1.3 | -1.5 |
| Germany | 0.8  | -0.8 | -1.0 | -1.6 | -1.4 | -1.2 |
| France  | 1.1  | -0.5 | -0.8 | -1.4 | -1.0 | -0.8 |
| Italy   | 1.2  | -0.5 | -0.7 | -1.3 | 0.4  | 0.6  |

### Nominal Long-Term Interest Rates

|         | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|------|
| U.S.A.  | 3.0  | 2.2  | 2.2  | 2.4  | 2.6  | 3.0  |
| U.K.    | 1.3  | 1.8  | 1.3  | 0.7  | 1.1  | 2.0  |
| Japan   | 0.7  | 0.3  | 0.3  | 0.0  | 0.1  | 0.1  |
| Germany | 1.9  | 0.5  | 0.6  | 0.4  | 0.5  | 0.8  |
| France  | 1.9  | 0.5  | 0.6  | 0.4  | 0.9  | 1.2  |
| Italy   | 1.9  | 0.5  | 0.6  | 0.4  | 2.3  | 2.6  |

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

|         | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|---------|-------|-------|-------|-------|-------|-------|
| U.S.A.  | 82.1  | 83.9  | 93.0  | 94.0  | 94.5  | 94.8  |
| U.K.    | 86.5  | 93.1  | 91.6  | 80.4  | 76.4  | 75.1  |
| Japan   | 63.5  | 59.8  | 56.0  | 58.4  | 58.3  | 58.1  |
| Germany | 99.0  | 99.9  | 94.7  | 95.0  | 94.3  | 94.9  |
| France  | 100.7 | 100.8 | 96.2  | 96.0  | 95.4  | 95.2  |
| Italy   | 106.9 | 107.5 | 102.1 | 102.0 | 101.2 | 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)

|                     | 2013  | 2014   | 2015   | 2016   | 2017   | 2018   |
|---------------------|-------|--------|--------|--------|--------|--------|
| U.S.A. <sup>1</sup> | 85.61 | 89.04  | 103.08 | 101.91 | 102.20 | 102.40 |
| U.K.                | 1.55  | 1.65   | 1.53   | 1.35   | 1.28   | 1.26   |
| Japan               | 98.20 | 106.70 | 120.00 | 118.40 | 113.50 | 115.20 |
| Eurozone            | 0.75  | 0.76   | 0.90   | 0.95   | 0.93   | 0.92   |

<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