# LIVERPOOL INVESTMENT LETTER

**August 2015**

Cardiff Business School
Cardiff University

Julian Hodge Institute of Applied Macroeconomics

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 collabouration between the Cardiff Business School of Cardiff University and Julian Hodge Bank. 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. This research has been given especial relevance by the ongoing discussions on the extra powers regularly requested by the European Union and also by the recent crisis in the eurozone.

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 Jane 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 Bruce Webb and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

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# LIVERPOOL INVESTMENT LETTER

## August 2015

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# POST BUDGET BLUES: POLITICS TRIUMPHS OVER ECONOMICS

What is wrong with the Conservatives? They get a majority against the odds and then for some extraordinary reason of political posturing they bring in the completely mad idea of the 'living wage', overturning even the Labour party's dangerous policy of creating a minimum wage but safeguarding us against its dangers with the Low Pay Commission, whose job is to minimise its impact on jobs. At a stroke this Chancellor has forgotten economics to score some quite redundant point against Labour with this Living Wage policy, which effectively overrules the Low Pay Commission's functions. Osborne is a fool; he is putting the UK's minimum wage on a par with France's and we know what that has done. His arrogance and triumphalism know no bounds. This is a man who once proclaimed his love of free markets and his interest in a flat tax. But those whom the gods wish to destroy they first make mad.

Osborne has been quite good in some ways: his policy on the deficit has been brave, sensible and restrained and in some ways he has reduced taxation, notably corporation tax and the top rate. But at root he is not interested and only cares about scoring political points. This in the end will destroy him because the labour market has a nasty tendency to respond fast to incentives. He has benefited in this recovery from a flexible labour market, in spite of all the EU's efforts to ossify it. The zero hours contract for example has been a masterly fight-back against the EU's socialist dreams in the labour market.

UK employment law mostly retains balance and fairness between employers and employees, even if we could still helpfully remove some recent encrustations from the EU such as TUPE and full-time rights for part-timers. But raising the minimum wage will hit low-paid jobs with vicious force. One needs to remember that over half of UK jobs are in SMEs; these firms will just cut back and the dole will roar away, especially in the next recession.

Seeing Iain Duncan Smith punch the air at this news was a sad moment. A further serious problem is that the cuts in welfare benefits seem set to fall largely on poor in-work families. This is again a stupid policy, which flies in the face of all the Thatcher labour market reforms. These, if you recall, concerned the 'why work' syndrome; it was agreed that politically you could not reduce the benefits received by the unemployed and so the state must support the incomes of the employed in order to produce incentives to be employed on the worker side and maintain incentives to employ on the firm side. Unfortunately the logic of this has eluded the current government in its desire to reduce government spending. You cannot square this circle by forcing employers to pay more and taking away in-work benefits because this will just destroy jobs.

**Table 1: Summary of Forecast**

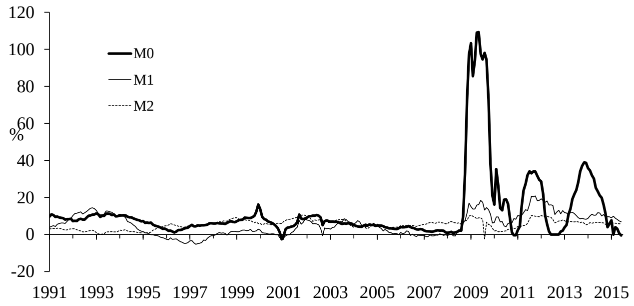
| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|
| GDP Growth[1] | | 0.7 | 1.7 | 2.8 | 3.0 | 2.5 | 2.4 | 2.4 |
| Inflation | CPI | 2.1 | 1.9 | 1.6 | 0.6 | 1.6 | 1.7 | 2.0 |
| | RPIX | 3.2 | 3.1 | 2.4 | 1.6 | 2.4 | 2.5 | 2.7 |
| Unemployment (Mill.) | | | | | | | | |
| | Ann. Avg.[2] | 1.6 | 1.4 | 1.0 | 0.8 | 0.7 | 0.7 | 0.6 |
| | 4th Qtr. | 1.6 | 1.3 | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 |
| Exchange Rate[3] | | 83.0 | 81.6 | 87.1 | 90.7 | 90.8 | 90.7 | 90.3 |
| 3 Month Interest Rate | | 0.9 | 0.6 | 0.6 | 0.6 | 1.0 | 1.6 | 2.1 |
| 5 Year Interest Rate | | 0.9 | 1.3 | 1.8 | 1.8 | 2.2 | 2.5 | 2.5 |
| Current Balance (£bn) | | −53.2 | −65.9 | −84.2 | −77.8 | −78.2 | −78.8 | −79.5 |
| PSBR (£bn) | | 110.6 | 92.5 | 88.6 | 84.0 | 79.6 | 58.7 | 39.1 |

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

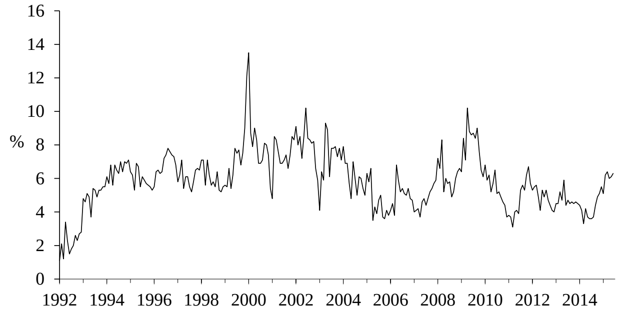
When the heir-apparent for the Conservative leadership comes up with this nonsense as his flagship policy it is time to worry about the UK's economic future, especially when Labour is turning leftwards. We need to watch these trends carefully since when the labour market goes wrong it spells trouble for other policies which tend to be dragged along by the needs to 'create jobs' which of course they are not designed to do. We must hope that the economy's strength will raise general wages sufficiently to make the living wage target less damaging; and also that the Low Pay Commission will be allowed to review the 'first-shot' target for this Living Wage by 2020. Often calmer counsels prevail in the end. If so the demonstration of Conservative 'heart' will work, without any permanent damage to the economy.

Turning to monetary policy, we can finally see some hard-headed ideas prevailing. The US Fed has announced it will raise rates fairly soon. The Monetary Policy Committee has made similar noises finally; it will not be able to ignore US policy given the close connection of the UK to the US economy. Get ready for a hardening of the monetary policy instruments. QE has been halted and it will gradually be reversed — if only by the running off of bonds held as they mature. Interest rates will rise as wage growth remains strong. As the world economy warms up over the next three years, world real interest rates will rise and inflation will return to 2%. Interest rates will probably get back to 4–5% by the end of that time.

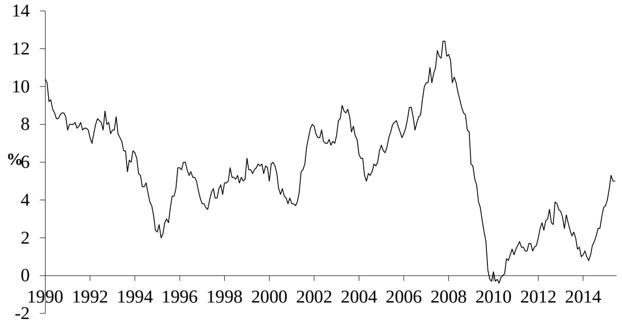
**U.S.: Growth in Monetary Aggregates (Yr - on - Yr)**



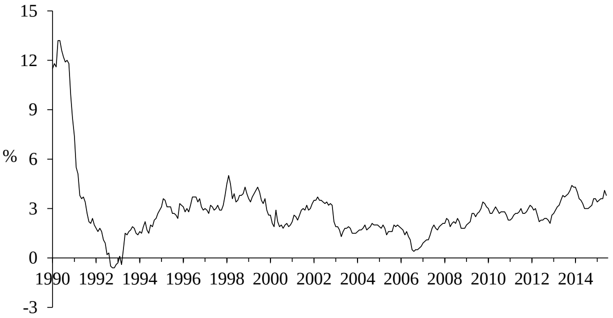

**UK: Notes and Coins in Circulation Growth**




**Eurozone M3 Growth**




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



# FOCUS ON JAPAN

Francesco Perugini

## Assessing progress in structural reforms (Part II)

The Abe structural reform agenda is based on ten principal areas which can be grouped into three distinctive blocks: a) improving the dynamism of the business sector; b) increasing and improving the quality of the labour supply (6–8); and c) strengthening product market competition (9–10). In this discussion of Abe's 'third arrow' (supply side) reforms I continue with what is a long list of targets.

8) Attract talent from overseas

As a part of the Japan Revitalization Strategy, in May 2014, the Japanese government announced a plan to attract "foreign talent" with the aim to make up for a slide in the working age population. The plan consists of three key points. First is a review of the Technical Intern Training System (TITS). Created in 1993 as a new method for transferring trade skills to foreign national trainees, the TITS enables trainees to acquire technologies, skills, etc. via an employment relationship after having received training for a certain period of time. The review of the TITS will be done by strengthening management and supervision of the system, widening the job categories covered by the system, extending the training period from the current period of three years to a maximum of five years and expanding the admission quota.

Second, Japan will ease the acceptance criteria for trainees in the construction and shipbuilding industries for a five-year period.

Third, the Abe government will consider allowing the employees of Japanese firms' foreign subsidiaries to work in Japan, permitting home support personnel to work in National Strategic Special Zones and enabling international students who have secured Japanese national license to work in the nursing sector.

To make immigration more attractive, the government also proposes to shorten permanent residency waiting times from 5 years to 3 years, and reduce income requirements to allow migration of parents and housekeepers. In addition, the government has lowered restrictions on foreign working visas, while full-time positions of around 1500 will be offered to young domestic and international researchers.

Early data suggest that to some extent these efforts are paying off. At the end of October last year, official data showed that the number of foreigners working in Japan has climbed, hitting a record high of 787,627 people, 9.8% higher than a year earlier. However, this still represent close to 1% of the labour force, the lowest among OECD countries — in France, the number of foreign workers is 5.6% and in Germany even close to 10%. Apart from skilled labour, part-time foreign labour has also increased, according to Toshihiko Suzuki, head of the Social Welfare Bureau at Japan's Ministry of Health, Labour and Welfare. "We see an increase coming from students studying abroad in Japan as well, with the biggest increase coming from Vietnamese and Nepalese students."

Economists say the rapidly aging country needs more foreign workers, but they are sceptical that the reform will succeed because of cultural barriers to outsiders, which are rooted in a two-century isolationist policy. Developing close personal relationships with people of different cultures will not be easy, they say. However, public attitudes toward new arrivals may be changing. About 51% of Japanese support a more open immigration policy, according to a survey published by the Asahi newspaper last month. Some 34% oppose the idea. "We need to start a public debate about how Japan will deal with immigration," said Hisashi Yamada, chief economist at the Japan Research Institute.

9) Reform agriculture

Prime Minister Shinzo Abe's Cabinet recently approved a revision bill that will help reform Japan's agricultural sector, so estranging a politically powerful farming lobby. The reform aims at increasing productivity, lowering production costs, inducing young people to take up farming, and enlarging the scale of farm operation. Overall, the reform aims to change the production model, which cannot compete in global markets anymore. "Japan's agriculture has gone into decline over these last 20 years," he said. "For it to survive, it has to change now", Abe said at a press conference during a recent visit to the US.

However, the centrepiece of the reform is aimed at depriving the lobby, the Japan Agricultural Cooperatives group (JA), of its privileged status, including the right to supervise local cooperatives, by the end of September 2019. This will allow local cooperatives to act more independently, improve production and boost productivity. More significantly, JA-Zenchu would stop collecting dues worth some ¥8 billion a year from regional cooperatives.

The reform was unexpectedly accepted by the JA itself, after months of forceful negotiations. But the reform will not completely marginalize the JA. The plan would allow it to wield influence over farmers through its powerful financial-services arm. Moreover, the decision on whether to limit ties between the lobby and non-farmers has been postponed for five years. This preserves more than half of the group's membership and, therefore, much of its funding stream and electoral power, at least for the time being.

While the legislation still needs to be finalized, passed and implemented — which could take as long as five years — this appears to be a major victory for Abe's structural-reform program. “Zenchu finally gave in. This is clearly a victory of the Abe administration over Zenchu, which played an important political role against agriculture reform,” said Masaaki Kanno, an economist at JPMorgan Chase & Co.

Still, in terms of structural reform the plan is more symbolic than a dramatic boost to Japan's economy. So critics expect more to be done in favour of a sector that remains heavily subsidized and whose production has fallen by ¥3 trillion over the past 20 years — the agriculture sector contributes only 1% to Japan's GDP. Although Japan joined the negotiations for the Trans-Pacific Partnership (TPP) Agreement last year — a free-trade grouping — the agriculture sector needs to be modernized, they said. The sector has withered to the point where it employs only 1.6 million people full-time out of a working-age population of about 62 million, well over half the country's farmers are over 65 years old, farms are less than five acres in size compared with 14 hectares in the EU and 170 hectares in the US, and farmers are the beneficiaries of about ¥5 trillion in annual government subsidies. Most farmers are more hobbyists than farmers and only work their land part-time. Very many do not bother working their holdings at all, especially now that subsidy cuts have made it unprofitable.

So it is unlikely that limiting the influence of JA-Zenchu alone will reverse the decades-long decline of Japanese agriculture. According to observers it would be advisable, for instance, to undertake domestic reform in the direction of reducing/lifting tariffs, or allowing the entry of non-agricultural firms and encouraging large scale operations. Other measures such as allowing low-cost producing areas/farmers to produce more (rather than imposing quotas) and spurring the exit of high-cost producers are necessary.

However, even with JA agreement, passing the legislation could still be difficult, particularly in the Diet's upper house where agricultural interests are disproportionately represented. The lobby may exploit any loopholes in the legislation to protect its status or create interference during the implementation phase. The same holds true for Abe's LDP, whose members successfully forced the prime minister to postpone agricultural reforms when they were first proposed last year. LDP politicians in rural Japan have long depended on JA-Zenchu's electoral machine for votes and money. Last January's victory of a JA-Zenchu-backed independent candidate for governor suggested that the farm lobby could still wield power over the conservative party.

10) Revitalize the healthcare industry

The health and medical care is also an industry under regulation for which Abe plans to introduce substantial reforms. The healthcare system in Japan is one of the most egalitarian in the world and it has affordable medical costs. The country introduced universal health coverage in 1961, making the system especially generous for older people. In 2000, it introduced mandatory insurance funded by taxation for long-term care services, as the country began to worry about its ageing population. “In the US, healthcare is not a right but something you have to purchase,” says John Traphagan, a professor at the University of Texas and an expert on Japan's ageing population. “But in Japan, there is a cultural mindset that a healthy, well-educated population is a form of national security.” However, Japans is also the third-largest spender on health care in the world after the US and China, and the majority of health care spending is publically funded. Despite a number of government-driven initiatives to control social security spending, the gap between expenditure and premium income is expected to continue to widen. It is estimated that, in 2013, premium income only covered 56% of the social security expenditure.

To safeguard the health care system's viability, the Japanese government has recently proposed a deep reform. The plan, passed last June at the House of Councillors, includes changes to the country's universal health insurance system in order to boost growth by increasing demand for innovative drugs and medical devices. In particular, the reforms aim to shorten the approval process for new medicine; expand the scope of advanced medical treatment that is compatible with the public health insurance system; promote the commercialization of regenerative medicine; and establish the Japanese version of the US National Institute of Health to promote medical research.

The health care reforms are also trying to address the rising costs of elderly care, with increased cost-sharing by high-income workers and prefectures taking over the running of loss-making public insurance bodies from municipalities. To try to stem the surge in costs, the government has recently proposed to expand the use of generic drugs, which now account for 60% of prescriptions, to 80–90% by the end of fiscal 2017. Generics cost 30–50% less than brand-name drugs. Other proposals for reducing health care spending included extra out-of-pocket charges for hospital walk-ins, to discourage frequent visits for minor symptoms.

Reformers say the changes would give patients more choice and allow doctors more discretion. However, the Japan Medical Association (JMA), the largest doctors' group in the country which represents most private practices and local clinics, opposes the reforms. The JMA counters that the reforms would widen the healthcare gap between rich and poor.

Critics also question just how much economic growth and cost-cutting the changes proposed would generate. According to OECD data, public and private spending on health care and long-term care more than doubled from 4.5% of GDP in 1990 to 10% of GDP in 2011, constituting a key driver for its deteriorating fiscal condition. IMF reckons that by the year 2030 costs could reach as high as 20% of GDP in spite of all this reform effort.

# MARKET DEVELOPMENTS

The world environment remains positive for growth, even if the rate is well below that in the booming mid-2000s. China is slowing which is fraying many people's nerves; but this had to happen and world growth is running around the 3% mark which is perfectly healthy. Labour markets in the main OECD economies outside the Eurozone are starting to tighten and this is ushering in faster wage growth and the need to raise interest rates.

Bond yields will have to rise even if for now markets remain sceptical about rising interest rates. The yields on equities in this long middle phase of the world long commodity cycle should be good; commodity prices will remain low on huge excess capacity and this will make it easier for business formation and profits growth in commodity-using economies, the bulk of the world economy.

**Table 1: Market Developments**

| | Market Levels | | Prediction for Jul/Aug 2016 | |
|---|---|---|---|---|
| | **Jun 26** | **Jul 30** | **Previous Letter** | **Current View** |
| **Share Indices** | | | | |
| UK (FT 100) | 6808 | 6669 | 9674 | 9476 |
| US (S&P 500) | 2102 | 2109 | 2746 | 2754 |
| Germany (DAX 30) | 11473 | 11257 | 15936 | 15636 |
| Japan (Tokyo New) | 1671 | 1647 | 2279 | 2247 |
| **Bond Yields (government** | | | | |
| UK | 2.27 | 2.09 | 2.00 | 2.20 |
| US | 2.41 | 2.27 | 2.10 | 2.10 |
| Germany | 0.86 | 0.66 | 1.50 | 1.50 |
| Japan | 0.46 | 0.42 | 0.70 | 0.70 |
| UK Index Linked | −0.65 | −0.83 | 0.10 | 0.10 |
| **Exchange Rates** | | | | |
| UK ($ per £) | 1.57 | 1.56 | 1.56 | 1.50 |
| UK (trade weighted) | 93.2 | 93.9 | 82.3 | 90.6 |
| US (trade weighted) | 102.5 | 104.0 | 85.51 | 100.0 |
| Euro per $ | 0.90 | 0.92 | 0.79 | 0.91 |
| Euro per £ | 1.41 | 1.43 | 1.23 | 1.37 |
| Japan (Yen per $) | 124.0 | 124.3 | 98.0 | 120.5 |
| **Short Term Interest Rates (3-month deposits)** | | | | |
| UK | 0.59 | 0.50 | 1.10 | 1.30 |
| US | 0.28 | 0.43 | 0.70 | 1.10 |
| Euro | −0.01 | −0.08 | 0.50 | 0.10 |
| Japan | −0.05 | 0.00 | 0.70 | 0.20 |

**Table 2: Prospective Yields** [1]

**Equities: Contribution to £ yield of:**

| | Dividend Yield | Real Growth | Inflation | Changing Dividend Yield | Currency | Total |
|---|---|---|---|---|---|---|
| UK | 3.40 | 2.5 | 1.6 | 38.00 | | 45.50 |
| US | 1.90 | 3.0 | 1.6 | 26.00 | 3.92 | 36.43 |
| Germany | 2.60 | 1.4 | 1.5 | 36.00 | 4.49 | 45.99 |
| Japan | 1.70 | 1.4 | 2.0 | 33.00 | 6.88 | 44.98 |
| UK indexed[2] | −0.65 | | 1.6 | 1.00 | | 1.77 |
| Hong Kong[3] | 2.60 | 6.8 | 1.6 | 2.00 | 3.92 | 16.92 |
| Malaysia | 3.30 | 5.5 | 1.6 | 58.00 | 3.92 | 72.32 |
| Singapore | 3.50 | 4.5 | 1.6 | 36.00 | 3.92 | 49.52 |
| India | 1.40 | 8.0 | 1.6 | 31.00 | 3.92 | 45.92 |
| Korea | 1.10 | 3.0 | 1.6 | −12.00 | 3.92 | −2.38 |
| Indonesia | 2.20 | 6.1 | 1.6 | 41.00 | 3.92 | 54.82 |
| Taiwan | 2.80 | 3.4 | 1.6 | 29.00 | 3.92 | 40.72 |
| Thailand | 3.20 | 4.1 | 1.6 | 38.00 | 3.92 | 50.82 |

**Bonds: Contribution to £ yield of:**

| | Redemption Yield | Changing Nominal Rates | Currency | Total |
|---|---|---|---|---|
| UK | 2.09 | −1.10 | | 0.99 |
| US | 2.27 | 1.70 | 3.92 | 7.89 |
| Germany | 0.66 | −8.40 | 4.49 | −3.25 |
| Japan | 0.42 | −2.80 | 6.88 | 4.50 |

**Deposits: Contribution to £ yield of:**

| | Deposit Yield | Currency | Total |
|---|---|---|---|
| UK | 0.50 | | 0.50 |
| US | 0.43 | 3.92 | 4.35 |
| Euro | −0.08 | 4.49 | 4.41 |
| Japan | 0.00 | 6.88 | 6.88 |

[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.

[2] UK index linked bonds All Stocks

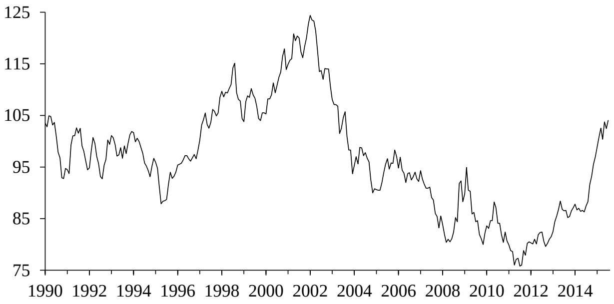
[3] Output based on China.

**Table 3: Portfolio(%)**

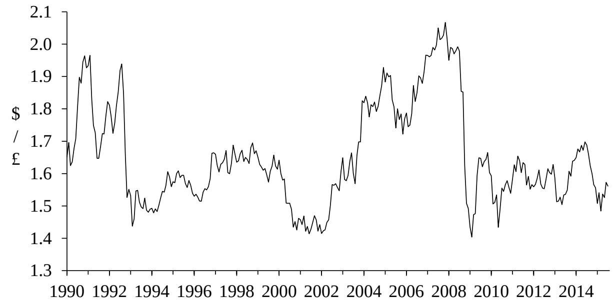
| | Sterling Based Investor | | Dollar Based Investor | | Euro Based Investor | |
|---|---|---|---|---|---|---|
| | July Letter | Current View | July Letter | Current View | July Letter | Current View |
| UK Deposits (Cash) | 5 | 5 | 5 | 5 | 1 | 1 |
| US Deposits | - | - | - | - | - | - |
| Euro Deposits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

# INDICATORS AND MARKET ANALYSIS
# FOREIGN EXCHANGE MARKETS

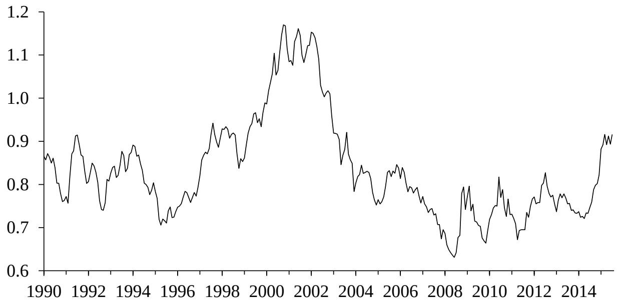
**US : Trade Weighted Index**
**(Bank of England 1990 = 100)**



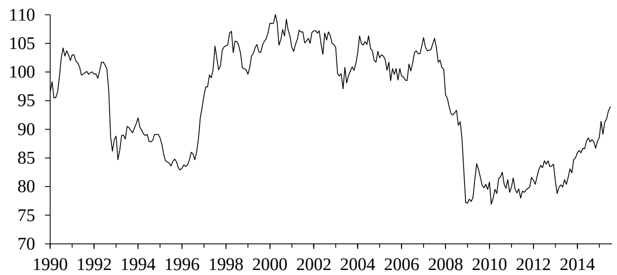

**UK: Dollars Per Pound Sterling**



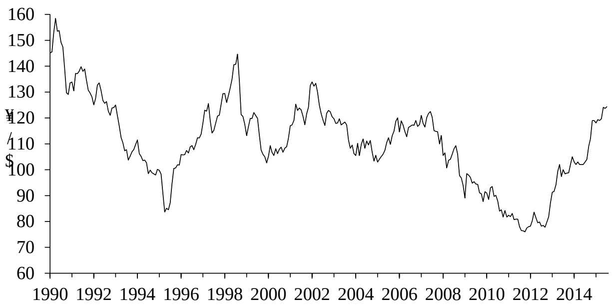

**Euro per US dollar**




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

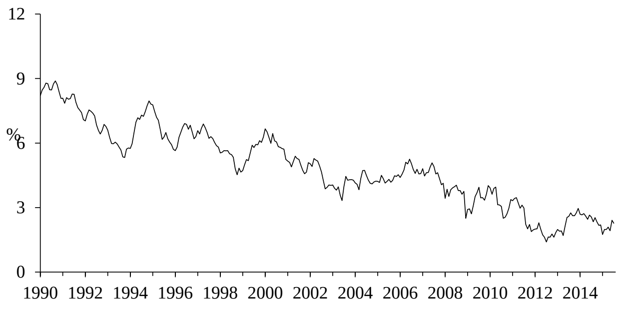



**Japan : Yen Per U.S. Dollar**

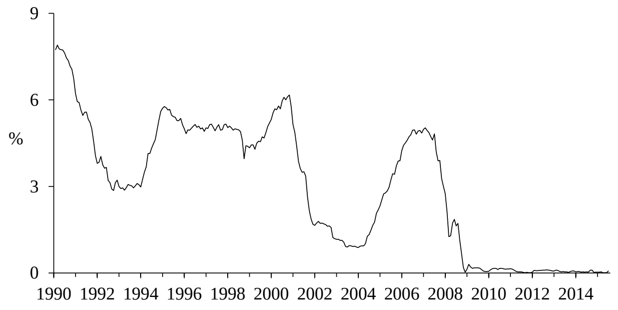


# GOVERNMENT BOND MARKETS

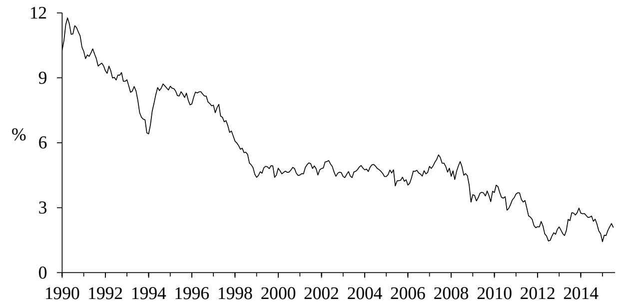
**U.S.: Yield on Long-Term Government Bonds**



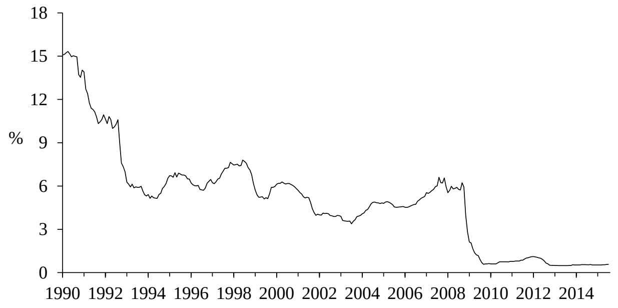

**U.S. : 3-Month Treasury Bill**



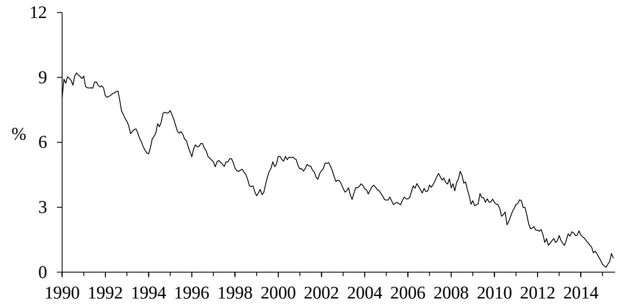

**U.K.: Yield on Long-Term Government Bonds**



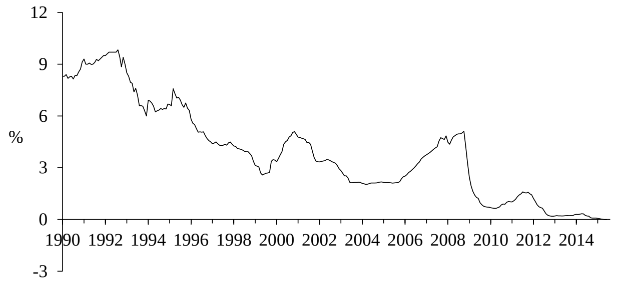

**U.K. : 3-Month Interbank Rate**



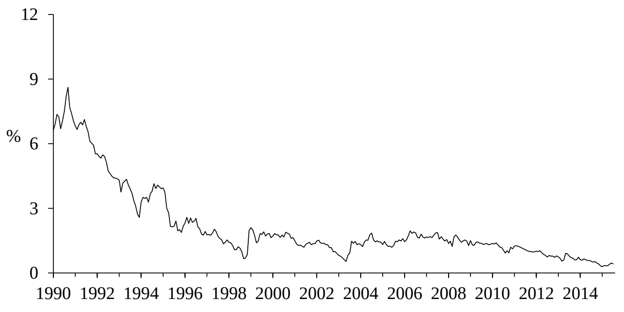

**Germany: Yield on Public Authority Bonds**



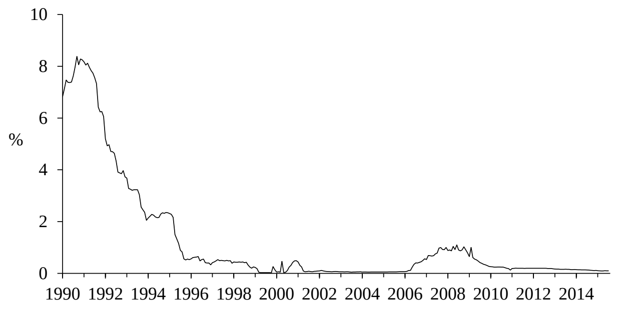

**Germany : 3-Month Interbank Deposit Rate**




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

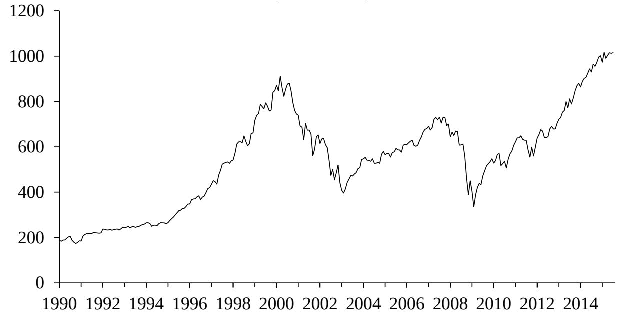



**Japan : 3 Month Money Market Rate**

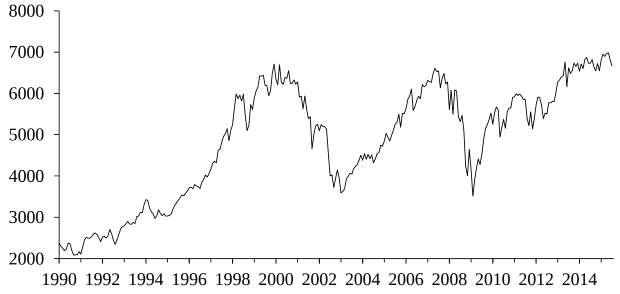


# MAJOR EQUITY MARKETS

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

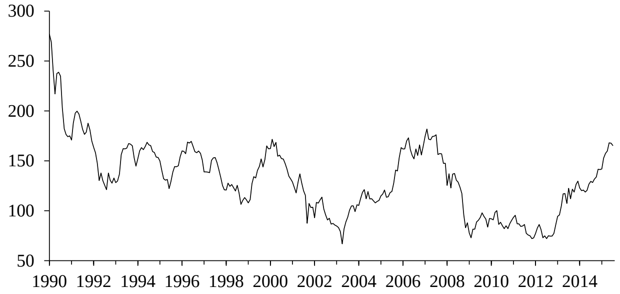



**U.K. : FTSE-100 Index (10 April 1962=100)**




**Germany : DAX 30**


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



# EMERGING MARKETS

Anupam Rastogi

## India

The Asian Development Bank has retained its India GDP growth projection for 2015–16 at 7.8%, but cautioned that delay in reforms relating to land acquisition and Goods and Services Tax (GST) could hamper growth. It expects GDP growth to be 8.2% in 2016–17. With two weeks of the monsoon session seeing a logjam in the parliament and only a week of work left in the current session, only a very deft move can see the GST bill to be passed. India's opposition Congress party has vowed to block or delay economic reforms proposed by the government of Prime Minister Narendra Modi. In the last letter, we had hinted that the "monsoon session" of parliament could be a washout. The land acquisition bill and flexible labour laws, essential for long-term sustainable economic growth are unlikely to be delivered until later this year or may be pushed to 2016.

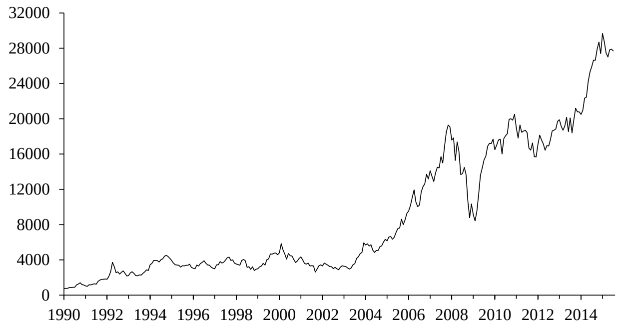
Consumer price inflation accelerated 5.4% in June from a year earlier and is forecast to increase toward the central bank's 6% target by January. Wholesale prices fell 2.4%, having declined each month this year. As the base effect wears off, it will remove the benefits of falling commodity costs. That means WPI as well as CPI inflation will move in tandem. Hence, the Reserve Bank, which tracks retail inflation as a benchmark for its monetary policy, is unlikely to ease monetary policy in its August 3 meeting.

India's trade deficit in June remained steady at USD 10.83 billion, up 4% compared to USD 10.41 billion in May. Exports continued to disappoint on a combination of weak global demand and low crude prices. The total value of exports for June was down 16%, year-on-year and imports declined 13.4% year-on-year. The current account deficit for this year, however, will remain at the same levels as last year (1.3%) helped by lower crude prices.

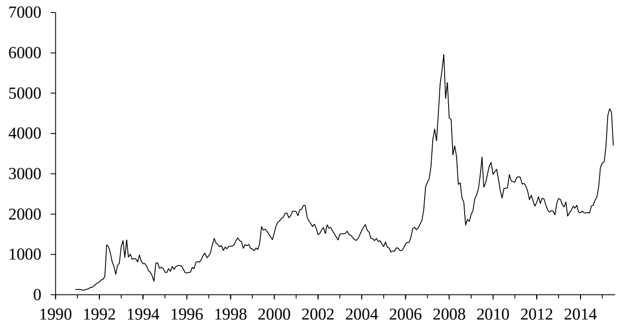
From the market intervention by the central bank, it seems that the RBI has a preference for a weaker rupee which can help prop up falling exports. The central bank is comfortable as long as rupee remains within the band of Rs 63 to 65 to the US dollar.

Better progress of the monsoon progress has underpinned the markets even though the political infighting has dented business confidence. Whatever reform can be carried out by the administration are moving smoothly. With China's equity market seeing a painful sell-off, India finds itself the happy recipient of investment searching for safety in the developing world. For money that wants to stay in emerging markets and for which China is now too hot a destination, India seems the best alternative. Foreign investors made net purchase of $360 million of Indian equities in the month of July, reversing outflows over the previous two months.

**India: BSE Sensitive**




**China: SSE Composite Index**




| | 13-14 | 14-15 | 15-16 | 16-17 | 17-18 |
|---|---|---|---|---|---|
| GDP (%p.a.) | 6.9 | 7.3 | 7.8 | 8.0 | 8.5 |
| WPI (%p.a.) | 7.0 | 6.0 | 4.8 | 4.0 | 4.0 |
| Current A/c(US$ bill.) | -50.0 | -34.0 | -26.0 | -30.0 | -34.0 |
| Rs./$(nom.) | 60.0 | 62.0 | 63.5 | 64.0 | 65.0 |

## China

China's growth remained at 7% in the second quarter. ADB has revised downward China's GDP growth to 7% for 2015, and 6.8% in 2016. President Xi Jinping has said that the economy is facing "some problems" but functioning well in general. Chinese premier, Li Keqiang, has ruled out any return to "strong stimulus" measures.

China's policy mantra — credit solves all crises — is in hot waters. China markets regulator warns media on 'market disturbance'. The regulator, China Securities Regulatory Commission, has asked journalists to ask for CSRC confirmation of 'speculative' reports before reporting. The warning came in the wake of a "national team" comprising of largely state-owned entities trying hard to shore up China's stock market. The problem is that the marginal impact of each additional yuan of credit seems to be diminishing fast. The question now is what are Chinese policy makers' limits? The Shanghai Composite Index is 28% below its June 12 peak. China established a market-stabilization fund, in the first week of July, aimed at fighting off the biggest stock selloff in years. A total of 21 Chinese brokerages invested 120 billion yuan ($19.3 billion) in the fund according to the China Securities Association. Instead of having an Elastoplast solution to stock market crisis, a sound advice is that China must let the markets decide.

Real economy, on the other hand, seems to be chugging along. The overall first-half trade surplus, of Rmb1.6tn, was some 150% higher than the same period a year ago. China wants a more flexible currency to meet its other objectives, but their actions disprove it. It reveals a fundamental tension in China between a desire to intervene and a desire to let market forces operate. This could affect whether the International Monetary Fund includes the renminbi in its special drawing rights, or whether China's A-shares gain access to the MSCI Emerging Market index. The intervention in the stock market by authorities has not gone down well with investors. Larry Fink, chief executive of BlackRock, said foreign investors would need to reassess.

However, the London Metal Exchange, which sets the price of industrial metals from copper to aluminium, will now accept renminbi as collateral against trades, a boost for the international use of China's currency besides the dollar, sterling, euro and yen.

The new BRICS development bank was formally launched in Shanghai, with representatives from Brazil, Russia, India, China and South Africa envisioning a nimbler, more responsive alternative to institutions such as the World Bank.

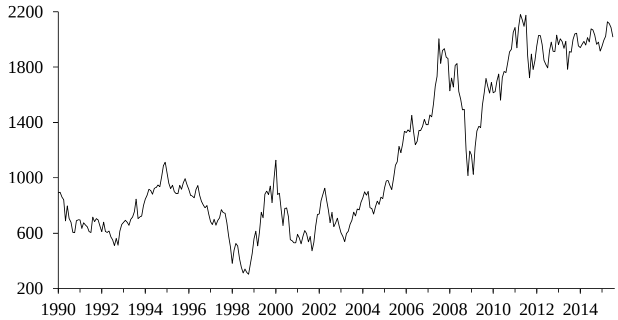
The new bank aims to spur infrastructure spending, improve connectivity and fight poverty in the Asia-Pacific region. ADB estimates that the Asia-Pacific region needs $8 trillion in infrastructure investment between 2010 and 2020. As the largest shareholder, China will hold 26.06% of the votes, giving it an effective veto over major decisions, followed by India with 7.5% and Russia with 5.92%.

| | **13** | **14** | **15** | **16** | **17** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 7.7 | 7.4 | 6.8 | 6.5 | 6.0 |
| Inflation (%p.a.) | 3.5 | 2.0 | 1.3 | 1.5 | 2.0 |
| Trade Balance(US$ bill.) | 260 | 382 | 550 | 420 | 400 |
| Rmb/$(nom.) | 6.2 | 6.2 | 6.3 | 6.3 | 6.2 |

## South Korea

The economy expanded 2.2% in the second quarter from a year earlier. Both domestic consumption and exports have remained sluggish. We expect GDP to grow 2.7% this year and 3% next year. The economy is suffering from a weak demand from the slower global growth and dampened domestic consumption stemming from the outbreak of Middle East Respiratory Syndrome in the second quarter of 2015.

**Korea: Composite Index**




South Korea's central bank expects to have modest inflation continuing for the rest of the year as tepid consumption and weak global oil prices keep a lid on price pressures. Inflation remains low and well under the bottom tier of the central bank's 2.5 to 3.5% target band. June inflation stood at 0.7% on-year. Low inflation is attributed to supply-side factors, mainly low commodity prices. The Bank of Korea has forecast inflation will reach 0.9% this year and 1.8% in 2016. The 2.5–3.5% target band for the 2013–2015 period, has been questioned for its validity as inflation has remained below the range for 32 consecutive months. The BOK may change the target as it has acknowledged that structural factors such as demographic changes stemming from rapid aging have put downward pressure on inflation. The central bank currently resets the band every three years after consulting with the government.

In June the central bank cut interest rates for the fourth time since August 2014. The bank's base rate stands at 1.50%. It is unlikely that the central bank would cut rates again, given mounting household debt. The government has announced a set of measures to manage the nation's rapidly rising household debt, prodding banks to extend fixed-rate, amortized loans and adopt tougher screening rules on borrowers starting from the latter half of 2016.

The country's trade surplus reached US$9.97 billion in June, up significantly from $6.26 billion in May and higher than $5.35 billion a year earlier. Exports contracted 2.4 percent on-year to $46.67 billion in June, while imports nosedived 13.6% to $36.69 billion. In the first half of 2015, the country's trade surplus stood at $46.3 billion, much larger than the $19.9 billion in the black, posted for the same period in 2014. Korea in 2015 H1 exported $268.7 billion worth of goods and services, down 5.1% from a year earlier, while imports came to $222.4 billion, representing a 15.6% drop.

South Korea has recorded a current account surplus of $52.4bn for the first half: the highest for any six-month period, up 33% from the year before. The surplus was driven by a collapse in the value of energy imports, which fell to $54.4bn from $90.5bn a year earlier — more than off-setting an 11% fall in exports. The won is likely to strengthen as the nation runs current account surplus.

South Korea's equity capital markets are booming with the volume of initial public offerings set to reach a record high this year as companies rush to raise funds against a backdrop of less red tape and robust investor demand. Korea Exchange expects 20 companies to go public on the main bourse and 100 companies to get listed on the junior tech-heavy Kosdaq.

During the first half of the year, there were 18 new listings worth $992m in Korea. Most of the recent IPOs have been successful, delivering handsome investment returns.

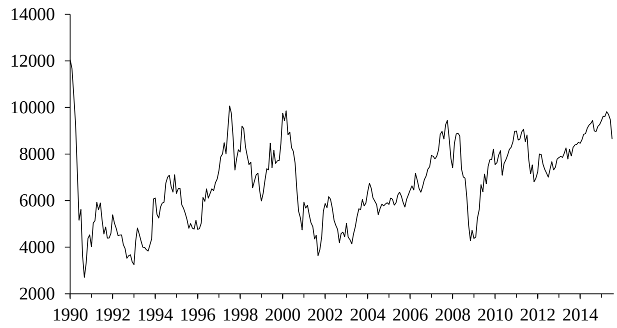
| | **13** | **14** | **15** | **16** | **17** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 3.0 | 3.3 | 2.7 | 3.0 | 3.0 |
| Inflation (%p.a.) | 1.3 | 2.0 | 1.0 | 1.8 | 2.0 |
| Current A/c(US$ bill.) | 71.0 | 80.0 | 90.0 | 88.0 | 88.0 |
| Won/$(nom.) | 1100 | 1080 | 1120 | 1100 | 1100 |

## Taiwan

Taiwan Q2 GDP growth unexpectedly slumped to a three-year low in the second quarter, hurt by a collapse in key technology products exports from China. Gross domestic product grew 0.64% year-on-year, sharply below the 2.67% forecast earlier, and the weakest rate since the second quarter of 2012. In the first quarter, Taiwan had posted 3.37% growth. We expect GDP growth to be 2% in 2015 and 2016.

Taiwan's consumer price index (CPI) fell for the sixth consecutive month in June, dropping 0.56% year-on-year, thanks to falling fuel and natural gas prices. For the first six months of 2015, the CPI was down 0.65% year-on-year. But the core inflation, which excludes vegetables, fruits and energy, was up 0.87% year-on-year during the January-June period. Inflation is expected to rise gradually in H2, helped by stable oil prices and in 2016 inflation is likely to hit 2%, on account of a low base. More importantly, food prices are also likely to trend higher due to warmer and

**Taiwan: Weighted TAIEX Price Index**




drier weather from the El Niño weather pattern, as well as the upcoming typhoon season.

In June, the central bank kept the discount rate — the rate at which the central bank lends to financial institutions mainly for short term purposes — at 1.875%, where it has been since July 2011. We expect monetary policy to remain accommodative for the rest of the year to support the economy.

June export orders contracted 5.8%, indicating that the economy will continue to struggle in the third quarter. To deal with this, the cabinet has introduced a stimulus package to boost exports and investments. Exports shrank 9.8 percent in the second quarter from the year-ago period as shipments of tech goods ebbed. A slowdown in China, Taiwan's biggest export market, has been a major drag on growth.

Following reports that the US Federal Reserve would be increasing interest rates soon, the US dollar rose sharply against the Taiwan dollar. Taiwan dollar is hovering around NT$31.310 to the US dollar.

The winner of the presidential elections in January will be a woman, no matter which party wins the election. Taiwan's ruling Kuomintang (KMT) party has appointed Hung Hsiu-chu as its presidential candidate, to fight against Tsai Ying-wen of the Democratic Progress party who secured her candidacy in April. The appointments guarantee the island a female president — a first for contemporary Chinese society, where Confucian culture still plays a strong role.

| | **13** | **14** | **15** | **16** | **17** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 2.1 | 3.7 | 2.0 | 2.0 | 2.6 |
| Inflation (%p.a.) | 1.2 | 1.5 | 1.0 | 1.6 | 1.6 |
| Current A/c(US$ bill.) | 50.6 | 57.4 | 60.0 | 64.0 | 68.0 |
| NT$/$(nom.) | 30.0 | 31.0 | 30.8 | 31.0 | 31.5 |

## Brazil

Brazilian GDP is likely to shrink 2% or more in 2015 and 0.2% in 2016, down from previous estimates for a decline of 1.7% in 2015 and an increase of 0.3% in 2016. Some economists expect growth to be below zero in 2017 as well.

This will hurt President Dilma Rousseff's efforts to shore up public finances and arrest a sharp increase in unemployment. Brazilian government has downgraded the target for the primary budget surplus this year from an original 1.1% of GDP to 0.15% and there is distinct possibility of it slipping into a deficit again as it did last year for the first time in a decade. A primary budget surplus of 1.0 percent in 2016 is next to impossible unless commodity prices rise sharply. It is referred as sick man of emerging economies now.

It is widely expected that Brazil's unemployment rate may climb to 8.0% this year and 9.0% in 2016.

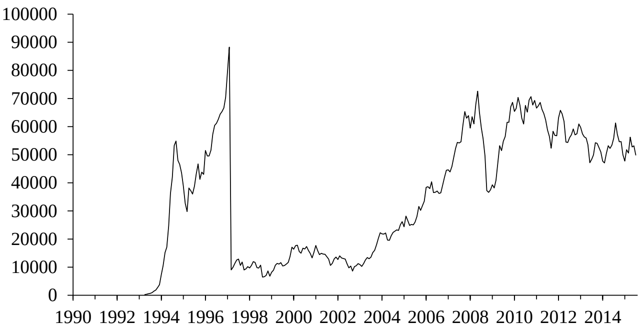
Consumer expenditure has declined sharply. Sales of furniture and household electrical goods were down 18.5% year on year, their biggest fall since the series began in 2001. Sales of vehicles and auto parts fell even more, by more than 22% year on year in the second quarter of 2015.

Inflation was at 9.25% in mid-July. To rein in inflation and falling real, Brazil's central bank raised its benchmark interest rate by half a point to 14.25%. This was the seventh consecutive raise in the benchmark interest rate. This is the highest level since August 2006 and likely to stay high for a long time. This was followed by an announcement from Standard & Poor's this week that it was putting Brazil's investment grade credit rating on a negative outlook for possible downgrade to junk status.

The government's loose fiscal policy this year has placed the onus on the monetary authority to deal with inflation, which at 9.25% year-on-year in mid-July was more than double the central bank's target range of 4.5%. In conjunction with the depreciation of Brazil's currency, the real, which has declined 22% against the dollar this year, the threat of higher inflation cannot be ruled out.

Brazil had a trade surplus of $4.527 billion in June compared to a trade surplus of $2.76 billion in May. After running a deficit at the start of 2015, Brazil's trade balance has turned positive with a surplus of $2.2 billion in the first six months of the year as a weaker local currency bolsters exports and a shrinking economy weighs on imports.

**Brazil: Bovespa**




The deficit in the current account has narrowed in June to $2.5 billion as well. Brazil's current account gap this year through June was $38.3 billion, compared with $50 billion in the same period last year.

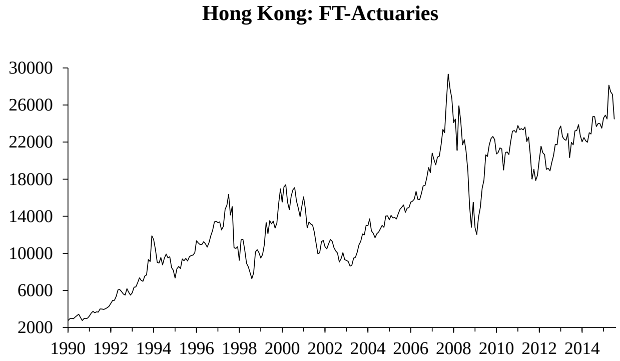
Imports in June declined 16.5% from a year ago to $15.2 billion, while exports during the same period declined 3.9% to $19.6 billion.

The real is trading at 3.37 per US dollar, the weakest level since March 2003. S&P has placed Brazil's foreign currency rating, which is one notch above junk, on negative outlook for possible downgrade. Moody's rates Brazil Baa2, two notches above junk, and Fitch has the country on an equivalent BBB rating. Loss of investment grade would force the exit from Brazilian assets of a large number of long-only fund managers who are not able to invest in junk-rated bonds. Under this scenario, the country's currency would weaken rapidly against the dollar, perhaps heading towards the R$4 mark.

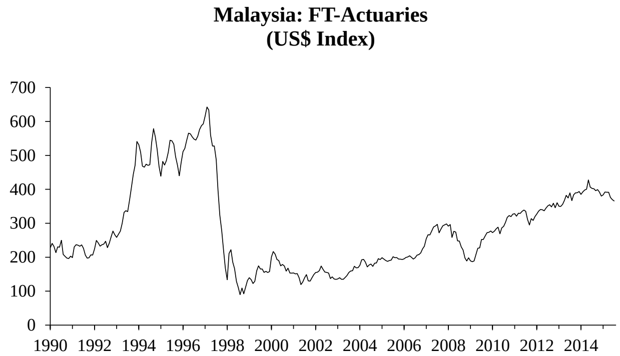
Lula da Silva, Brazil's former president believes that the country's political left was suffering from "persecution". According to him, "elitists" were jealous of the achievements of his left-leaning ruling Workers' party (PT) in raising the living standards of the poor. The "persecutors" are Brazil's increasingly proactive and independent federal police, public prosecutors and judges.

| | **13** | **14** | **15** | **16** | **17** |
|---|---|---|---|---|---|
| GDP (%p.a.) | 2.5 | 0.1 | -2.0 | 0.0 | 1.2 |
| Inflation (%p.a.) | 5.9 | 6.5 | 8.2 | 6.8 | 6.0 |
| Current A/c(US$ bill.) | -75.0 | -70.0 | -70.0 | -70.0 | -80.0 |
| Real/$(nom.) | 2.3 | 2.4 | 3.1 | 3.2 | 3.0 |

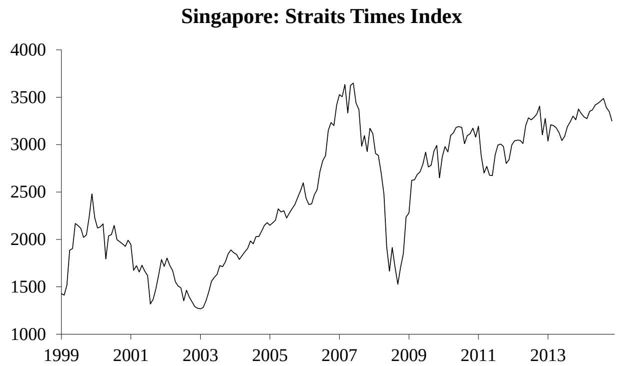
## Other Emerging Markets

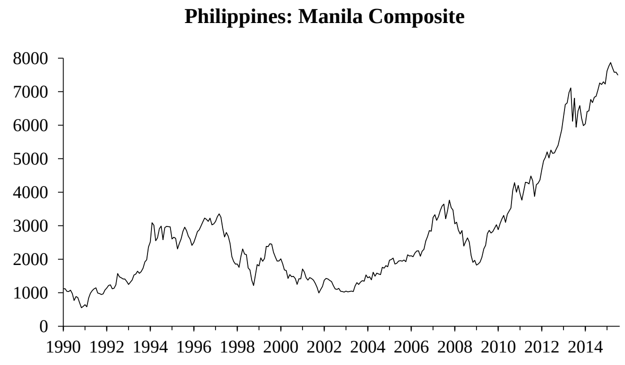






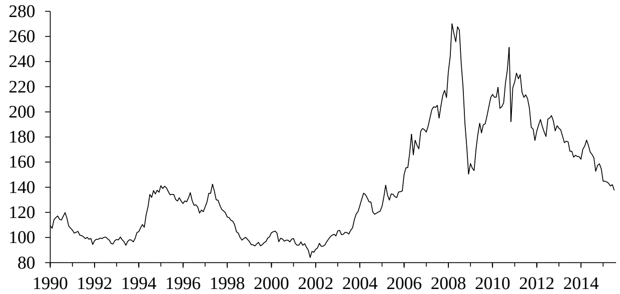




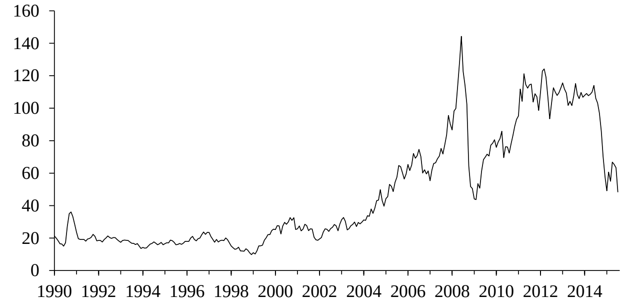



# COMMODITY MARKETS

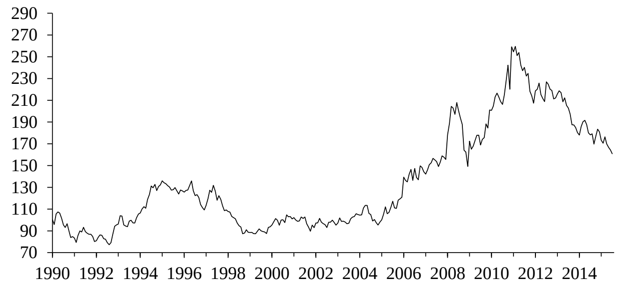
**Commodity Price Index (Dollar)**
**(Economist, 2000=100)**



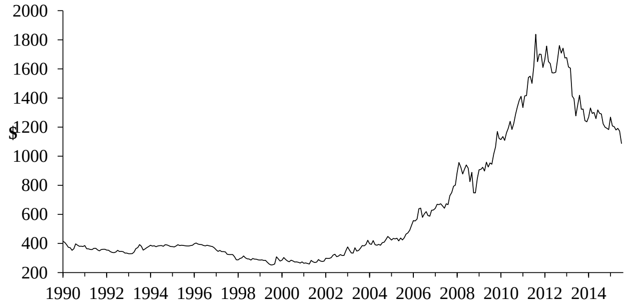

**Oil Price: North Sea Brent (in Dollars)**



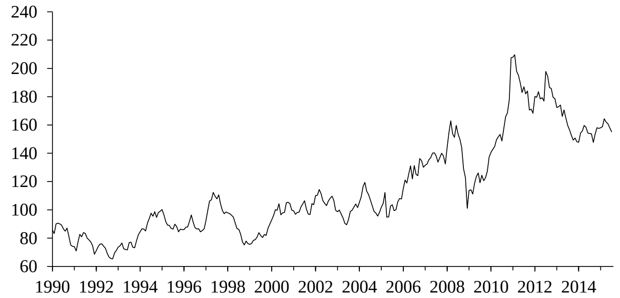

**Commodity Price Index (Sterling)**
**(Economist, 2000=100)**




**Gold Price (in Dollars)**




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



# UK FORECAST DETAIL

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

| | Inflation %[1] (CPI) | Short Dated (5 Year) Interest Rates | 3 Month Int. Rates | Nominal Exchange Rate (2005=100)[2] | Real Exchange Rate[3] | Real 3 Month Int. Rates %[4] | Inflation (RPIX) | Real Short Dated Rate of Interest[5] |
|---|---|---|---|---|---|---|---|---|
| 2013 | 1.9 | 1.3 | 0.6 | 81.6 | 85.6 | -1.3 | 3.1 | -0.2 |
| 2014 | 1.6 | 1.8 | 0.6 | 87.1 | 92.0 | -1.0 | 2.4 | 0.2 |
| 2015 | 0.6 | 1.8 | 0.6 | 90.7 | 95.6 | -1.0 | 1.6 | -0.1 |
| 2016 | 1.6 | 2.2 | 1.0 | 90.8 | 95.8 | -0.7 | 2.4 | 0.3 |
| 2017 | 1.7 | 2.5 | 1.6 | 90.7 | 95.8 | -0.4 | 2.5 | 0.4 |
| 2018 | 2.0 | 2.5 | 2.1 | 90.3 | 95.8 | 0.0 | 2.7 | 0.2 |
| 2013:1 | 1.9 | 1.0 | 0.6 | 80.5 | 84.1 | -1.1 | 3.3 | -0.8 |
| 2013:2 | 1.7 | 0.9 | 0.5 | 80.7 | 84.2 | -1.5 | 3.1 | -0.9 |
| 2013:3 | 2.1 | 1.5 | 0.5 | 81.4 | 85.3 | -1.4 | 3.2 | -0.2 |
| 2013:4 | 1.9 | 1.7 | 0.5 | 83.7 | 88.7 | -1.1 | 2.7 | 0.4 |
| 2014:1 | 1.7 | 1.8 | 0.6 | 85.7 | 90.6 | -1.2 | 2.7 | 0.7 |
| 2014:2 | 1.8 | 1.9 | 0.6 | 87.1 | 91.6 | -1.0 | 2.6 | 1.0 |
| 2014:3 | 1.6 | 1.9 | 0.6 | 88.2 | 93.0 | -0.7 | 2.5 | 1.2 |
| 2014:4 | 1.3 | 1.4 | 0.5 | 87.5 | 92.9 | -1.0 | 2.0 | 0.6 |
| 2015:1 | 0.1 | 1.8 | 0.5 | 91.0 | 95.4 | -1.1 | 1.3 | 0.7 |
| 2015:2 | 0.5 | 1.6 | 0.6 | 90.6 | 95.4 | -1.1 | 1.6 | 0.3 |
| 2015:3 | 0.8 | 1.8 | 0.7 | 90.8 | 96.0 | -0.9 | 1.8 | 0.3 |
| 2015:4 | 1.0 | 2.0 | 0.8 | 90.5 | 95.7 | -0.9 | 1.9 | 0.3 |

1 Consumer's Expenditure Deflator
2 Sterling Effective Exchange Rate Bank of England
3 Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate
4 Treasury Bill Rate less one year forecast of inflation
5 Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

## Labour Market and Supply Factors (Seasonally Adjusted)

| | Average Earnings (1990=100)[1] | Wage Growth[2] | Unemployment (New Basis) Percent[3] | Millions | Real Wage Rate[4] (1990=100) |
|---|---|---|---|---|---|
| 2013 | 238.6 | 1.1 | 4.2 | 1.4 | 132.1 |
| 2014 | 241.6 | 1.3 | 3.0 | 1.0 | 131.6 |
| 2015 | 247.5 | 2.4 | 2.2 | 0.8 | 134.1 |
| 2016 | 255.3 | 3.2 | 2.0 | 0.7 | 136.1 |
| 2017 | 262.9 | 3.0 | 1.9 | 0.7 | 137.8 |
| 2018 | 270.9 | 3.0 | 1.7 | 0.6 | 139.2 |
| 2013:1 | 236.8 | 0.6 | 4.6 | 1.5 | 131.6 |
| 2013:2 | 240.7 | 2.3 | 4.4 | 1.5 | 133.3 |
| 2013:3 | 239.0 | 0.8 | 4.1 | 1.4 | 134.0 |
| 2013:4 | 238.0 | 1.1 | 3.7 | 1.3 | 134.7 |
| 2014:1 | 241.4 | 1.9 | 3.4 | 1.2 | 132.4 |
| 2014:2 | 240.4 | -0.1 | 3.1 | 1.1 | 131.2 |
| 2014:3 | 241.5 | 1.0 | 2.8 | 1.0 | 131.3 |
| 2014:4 | 243.0 | 2.1 | 2.6 | 0.9 | 131.6 |
| 2015:1 | 245.7 | 1.8 | 2.3 | 0.8 | 134.6 |
| 2015:2 | 245.9 | 2.3 | 2.2 | 0.8 | 133.5 |
| 2015:3 | 247.6 | 2.5 | 2.2 | 0.8 | 133.6 |
| 2015:4 | 250.8 | 3.2 | 2.1 | 0.7 | 134.5 |

1 Whole Economy
2 Average Earnings
3 Wholly unemployed excluding school leavers as percentage of employed and unemployed, self employed and HM Forces
4 Wage rate deflated by CPI

## Estimates and Projections of the Gross Domestic Product[1] (£ Million 1990 Prices)

| | Expenditure Index | £ Million '90 prices | Non-Durable Consumption[2] | Private Sector Gross Investment Expenditure[3] | Public Authority Expenditure[4] | Net Exports[5] | AFC |
|---|---|---|---|---|---|---|---|
| 2013 | 149.7 | 716792.3 | 422942.6 | 280112.3 | 186839.5 | -43986.8 | 129115.4 |
| 2014 | 153.9 | 737015.5 | 427963.1 | 304158.8 | 190713.6 | -49433.4 | 136386.5 |
| 2015 | 158.6 | 759444.4 | 437481.6 | 315661.6 | 193150.9 | -45651.0 | 141194.8 |
| 2016 | 162.6 | 778752.4 | 447600.9 | 324004.5 | 197878.0 | -45648.1 | 145082.7 |
| 2017 | 166.5 | 797118.0 | 458510.3 | 331200.7 | 201835.6 | -45657.5 | 148775.7 |
| 2018 | 170.4 | 815975.2 | 469801.9 | 338544.2 | 205872.3 | -45677.8 | 152572.1 |
| 2013/12 | 1.7 | | 0.8 | 6.9 | -0.8 | | 6.5 |
| 2014/13 | 2.8 | | 1.2 | 9.2 | 2.1 | | 6.0 |
| 2015/14 | 3.0 | | 2.2 | 3.8 | 1.3 | | 3.6 |
| 2016/15 | 2.5 | | 2.3 | 2.6 | 2.4 | | 2.8 |
| 2017/16 | 2.4 | | 2.4 | 2.2 | 2.0 | | 2.5 |
| 2018/17 | 2.4 | | 2.5 | 2.2 | 2.0 | | 2.6 |
| 2013:1 | 148.3 | 177519.5 | 105980.9 | 63263.4 | 48156.3 | -9136.5 | 30744.6 |
| 2013:2 | 149.2 | 178660.4 | 105506.8 | 65944.1 | 45724.2 | -8941.9 | 29572.8 |
| 2013:3 | 150.3 | 179940.8 | 105672.5 | 73909.9 | 46393.6 | -13073.1 | 32962.1 |
| 2013:4 | 150.9 | 180671.6 | 105782.4 | 76994.9 | 46565.5 | -12835.3 | 35835.9 |
| 2014:1 | 152.2 | 182265.5 | 106436.3 | 74892.1 | 48266.6 | -12641.4 | 34688.1 |
| 2014:2 | 153.5 | 183784.4 | 106421.7 | 75257.3 | 46811.9 | -12072.8 | 32633.8 |
| 2014:3 | 154.5 | 184921.4 | 106888.2 | 77659.4 | 47749.3 | -13346.2 | 34029.3 |
| 2014:4 | 155.4 | 186044.2 | 108216.9 | 76350.0 | 47885.7 | -11373.0 | 35035.4 |
| 2015:1 | 157.1 | 188027.6 | 108559.6 | 76022.9 | 49960.4 | -11418.3 | 35097.0 |
| 2015:2 | 158.9 | 190219.7 | 109098.3 | 80639.9 | 47084.9 | -11415.5 | 35185.9 |
| 2015:3 | 159.0 | 190337.9 | 109639.8 | 79590.1 | 47855.5 | -11410.3 | 35336.8 |
| 2015:4 | 159.4 | 190859.2 | 110183.9 | 79408.7 | 48250.2 | -11407.0 | 35575.2 |

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

## Financial Forecast

| | PSBR/GDP %[1] | GDP[1] (£bn) | PSBR (£bn) Financial Year | Debt Interest (£bn) | Current Account (£ bn) |
|---|---|---|---|---|---|
| 2013 | 6.0 | 1550.9 | 92.5 | 47.1 | -65.9 |
| 2014 | 5.5 | 1615.2 | 88.6 | 51.8 | -84.2 |
| 2015 | 5.0 | 1679.3 | 84.0 | 53.9 | -77.8 |
| 2016 | 4.6 | 1752.9 | 79.6 | 57.6 | -78.2 |
| 2017 | 3.2 | 1827.4 | 58.7 | 62.4 | -78.8 |
| 2018 | 2.1 | 1909.0 | 39.1 | 65.4 | -79.5 |
| 2013:1 | 3.5 | 373.6 | 13.3 | 11.9 | -14.1 |
| 2013:2 | 8.0 | 374.9 | 30.0 | 11.2 | -8.4 |
| 2013:3 | 5.0 | 385.5 | 19.3 | 11.5 | -22.2 |
| 2013:4 | 8.3 | 394.8 | 32.7 | 11.9 | -21.1 |
| 2014:1 | 2.7 | 395.7 | 10.6 | 12.4 | -17.7 |
| 2014:2 | 7.8 | 396.7 | 31.0 | 12.8 | -21.0 |
| 2014:3 | 4.9 | 402.8 | 19.6 | 13.0 | -23.8 |
| 2014:4 | 7.1 | 408.3 | 29.2 | 13.1 | -21.8 |
| 2015:1 | 2.1 | 407.4 | 8.7 | 12.9 | -16.0 |
| 2015:2 | 8.6 | 415.2 | 35.8 | 13.2 | -19.9 |
| 2015:3 | 4.3 | 418.5 | 17.8 | 13.4 | -20.2 |
| 2015:4 | 8.0 | 422.4 | 33.7 | 13.7 | -21.7 |

1 GDP at market prices (Financial Year)

# WORLD FORECAST DETAIL

**Growth Of Real GNP**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 1.6 | 2.3 | 2.2 | 2.3 | 3.0 | 3.0 |
| U.K. | 1.6 | 0.7 | 1.7 | 2.8 | 3.0 | 2.5 |
| Japan | –0.4 | 1.7 | 1.6 | 0.3 | 1.2 | 1.7 |
| Germany | 3.6 | 0.4 | 0.1 | 1.4 | 1.7 | 1.8 |
| France | 2.1 | 0.4 | 0.4 | 0.4 | 0.8 | 1.3 |
| Italy | 0.6 | –2.3 | –1.9 | –0.3 | 0.4 | 1.0 |

**Real Short-Term Interest Rates**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | –1.5 | –1.5 | –1.5 | –1.6 | –1.4 | –0.5 |
| U.K. | –2.4 | –1.1 | –1.3 | –1.0 | –1.0 | –0.7 |
| Japan | –0.9 | –1.3 | –1.6 | –1.6 | –1.7 | –1.8 |
| Germany | 0.1 | –0.7 | –1.2 | –1.4 | –1.4 | –1.8 |
| France | 0.6 | 0.0 | –0.6 | –0.9 | –1.3 | –1.7 |
| Italy | 0.4 | 0.0 | –0.6 | –1.0 | –1.4 | –1.7 |

**Real Long-Term Interest Rates**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 0.0 | –0.1 | 1.1 | 0.3 | 0.2 | 0.8 |
| U.K. | 0.2 | –0.8 | –0.2 | 0.2 | –0.1 | 0.2 |
| Japan | –0.8 | –1.1 | –1.3 | –1.6 | –1.6 | –1.5 |
| Germany | 0.0 | –0.3 | –0.9 | –1.4 | –1.7 | –1.4 |
| France | 0.2 | –0.1 | –0.7 | –1.3 | –1.6 | –1.4 |
| Italy | 0.1 | –0.2 | –0.7 | –1.3 | –1.6 | –1.4 |

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

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 79.8 | 81.6 | 82.1 | 83.0 | 83.2 | 83.0 |
| U.K. | 88.7 | 92.4 | 81.6 | 87.1 | 90.7 | 90.8 |
| Japan | 80.6 | 79.6 | 63.5 | 61.1 | 60.7 | 60.4 |
| Germany | 100.1 | 96.7 | 99.0 | 100.5 | 100.2 | 100.5 |
| France | 102.9 | 99.5 | 100.7 | 101.7 | 101.4 | 101.7 |
| Italy | 107.2 | 105.2 | 106.9 | 107.8 | 107.0 | 107.3 |

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

**Growth Of Consumer Prices**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 3.1 | 2.1 | 1.5 | 1.7 | 0.5 | 2.0 |
| U.K. | 3.5 | 2.1 | 1.9 | 1.6 | 0.6 | 1.6 |
| Japan | –0.3 | 0.0 | 0.4 | 2.8 | 1.0 | 1.4 |
| Germany | 2.1 | 2.0 | 1.5 | 1.0 | 0.5 | 1.7 |
| France | 2.1 | 2.0 | 0.9 | 0.6 | 0.2 | 0.1 |
| Italy | 2.8 | 3.0 | 1.2 | 0.2 | 0.2 | 0.6 |

**Nominal Short-Term Interest Rates**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 | 1.5 |
| U.K. | 0.9 | 0.9 | 0.6 | 0.6 | 0.6 | 1.0 |
| Japan | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 |
| Germany | 1.4 | 0.6 | 0.2 | 0.2 | 0.1 | 0.1 |
| France | 1.4 | 0.6 | 0.2 | 0.2 | 0.1 | 0.1 |
| Italy | 1.4 | 0.6 | 0.2 | 0.2 | 0.1 | 0.1 |

**Nominal Long-Term Interest Rates**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A. | 1.9 | 1.8 | 3.0 | 2.2 | 2.2 | 2.8 |
| U.K. | 2.0 | 0.9 | 1.3 | 1.8 | 1.8 | 2.2 |
| Japan | 1.0 | 0.8 | 0.7 | 0.3 | 0.4 | 0.5 |
| Germany | 1.8 | 1.5 | 1.0 | 0.5 | 0.3 | 0.6 |
| France | 1.8 | 1.5 | 1.0 | 0.5 | 0.3 | 0.6 |
| Italy | 1.8 | 1.5 | 1.0 | 0.5 | 0.3 | 0.6 |

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

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|
| U.S.A.[1] | 78.08 | 80.90 | 86.00 | 89.40 | 100.50 | 100.00 |
| U.K. | 1.61 | 1.59 | 1.55 | 1.65 | 1.50 | 1.50 |
| Japan | 79.36 | 80.51 | 98.20 | 106.70 | 120.00 | 120.50 |
| Eurozone | 0.71 | 0.78 | 0.75 | 0.76 | 0.90 | 0.91 |

[1] The series for the USA is a trade weighted index (1990=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model