

LIVERPOOL INVESTMENT LETTER

July 2015



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 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.

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| <p>The endless problems of the euro-zone are permitting weak growth which is an improving backdrop for the UK. With its new government underlining the dominance of a pro-business set of economic policies, prospects for the UK economy look good; future policy will diverge from EU practice increasingly whether the UK formally leaves the EU or not.</p> | |
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THE UK AND THE EUROZONE CRISIS

The euro-zone crisis has now been going on for about five years and the latest Greek episode has drawn attention away from the initial signs that it might be coming to an end. It still remains likely that the usual ‘pretend and extend’ strategy will happen once more with Greece after next Sunday’s strange referendum. It seems that the Greeks will vote Yes to the ‘latest package’ outlined in the referendum document and that the rest of Europe will put it back on the table and agree it with a great sigh of relief. The Tsipras government will argue that their mandate has altered in the light of this Yes vote and will continue in power, ‘implementing’ it. So the euro-zone will go on lending Greece huge amounts of money and pretending that it will be repaid. Some sort of normality will return to the Greek economy.

Probably the euro-zone will continue with its weak recovery after this. The Quantitative Easing programme being pursued by the ECB, which is comparable in its effect on M0 with both the US and UK programmes, is having some observable results in terms of money growth, with M3 growth now reaching 6% on a year ago. The banks are heavily regulated and have reacted by shrinking their balance sheets, particularly loans to SMEs. In the euro-zone furthermore banks are weakened by large holdings of government bonds of Southern European countries struggling with solvency problems; ‘stress-testing’ these banks is asking for trouble. Nevertheless something of a rebound is now occurring under the impact of QE.

Unfortunately it is hard to see when if ever ‘glad confident morning’ will arrive in the euro-zone, so deep are the problems created by the euro for handling the sort of crisis that has erupted. Having willed the euro for political reasons, the politicians now are unwilling to allow the solidarity in economic affairs that might just make the project possible. Governments find cooperation hard or even impossible because their home opinion is hostile to it; hence the issuing of bonds jointly guaranteed by all euro-zone governments is essentially off the table. This leaves all the heavy lifting at the euro-zone level to the European Central Bank. But it too is riven with dissent, with the German members and its allies unhappy with QE.

We think it will therefore not be too long before monetary policy returns to a more recognisable form and that the next boom in credit materialises as the new threat to stability.

Where does this weak but recovering background in the euro-zone leave the UK? In the first place the Chancellor and the Treasury will be pleased that instead of negative or zero growth across the Channel they are looking at some positive growth. In the second place it injects a sombre note into the debate over the UK referendum on Europe. No-one can pretend any more that we are in some seriously dynamic geographical partnership whose absence would be

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 | 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 |

¹Expenditure estimate at factor cost

²U.K. Wholly unemployed excluding school leavers (new basis)

³Sterling effective exchange rate, Bank of England Index (2005 = 100)

much of a loss. The arguments over this regional relationship will be carried out within a realistic perspective, rather like those over joining the euro — also a regional (monetary) relationship which mercifully we did not join as it would have dragged us down with the rest.

There is a wide reassessment of European prospects going on in investment circles just as there has been of Japanese prospects since the early 1990s collapse in asset prices. Sometimes areas of the world go ex-growth. Just as this happened in Japan, so it has now happened in the euro-zone. The reasons are similar: falling population, rising average age, strong vested interests with voting power, but with the added stress in the euro-zone of currency dissension.

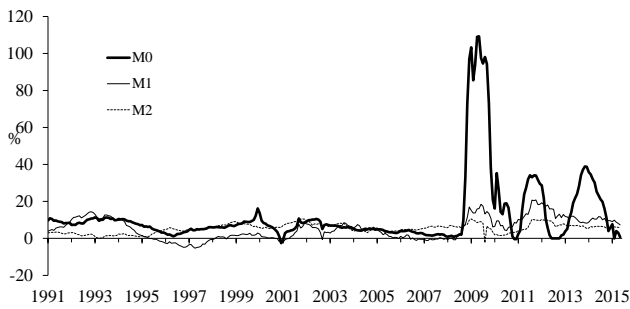
Fortunately growth in an economy does not depend on the neighbours but on one’s own intrinsic dynamism, which comes from willingness to allow competition, innovation and industrial change. The UK has established this willingness by its reforms in the 1980s and 1990s, which in turn were accepted politically by the Blair government in the 2000s. The coalition government was also united in support of this approach and it is continued by the Conservative government. The defeat of Labour and its various left-wing allies — the SNP, Plaid and the Greens — underlines how economic success along the lines of this approach remains the dominant view of the British electorate. The Scottish and Welsh electorates do not share this view locally but this is only because they are afforded the luxury of doing so by English taxpayers — without their support they would have to raise taxation by 12–15% of GDP in Scotland and some 20% of GDP in Wales. When one considers that after huge efforts in revenue raising the UK ratio of revenue to GDP is still only 36%, it puts these figures into perspective. Scotland and Wales on their own would have to increase the size of their revenue raising engines by between one third and more than one half just to afford current spending rates, let alone dreams of a socialist state.

The political conclusions from this are plain. Labour has no future in government unless it readopts its old Blairite approach. Furthermore there is absolutely no prospect of either Scots or the Welsh voting for independence; they will continue to agitate for as much devolved powers as they can get but they have no bargaining power with England over the matter. When there are no borders, there is no real power to set separate rates of tax; nor can there be

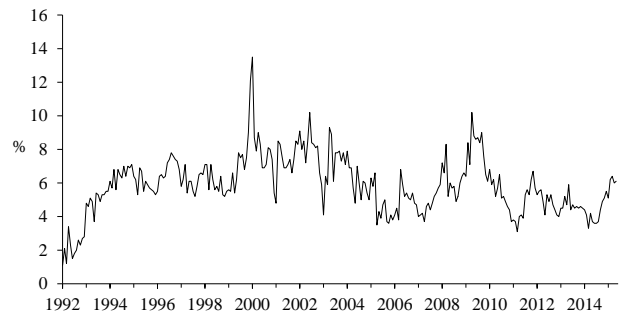
much independence in 'how to spend it' since equally people can vote with their feet if denied competitive public services. The argument over devolution is therefore a meaningless charade.

This is good news for UK growth and for a future in which increasingly the UK charts a different policy course from the socialist/social-democratic consensus of the continent.

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



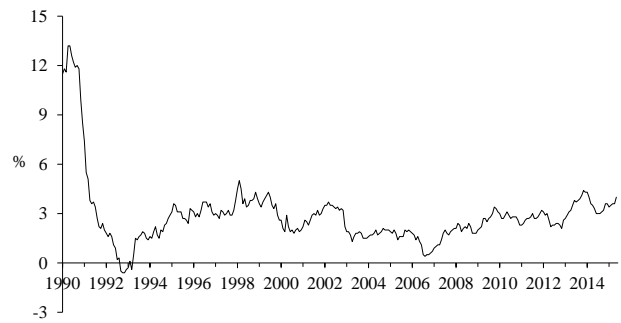
UK: Notes and Coins in Circulation Growth



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 what follows we continue to look at the progress made in each of the 10 areas.

4) Corporate tax reform

When Abe launched the third arrow, one of his main goals was to lower the corporate tax rate. “Japan’s corporate tax rate will change into one that promotes growth, through increased investment and higher wages”, Abe said last year when announced to reform part of the tax system. Lastly, on April 1 the Japanese parliament approved a plan that would cut the overall effective corporate tax rate by 2.51 percentage points to 32.1% from April and then to 31.3% the following year. Abe also pledged to lower the corporate tax rate to below 30% over the coming years, bringing it closer to the 25% OECD average.

The corporate tax rate in Japan is the second highest in the industrialized world (behind only the US), and it is also one of the highest rates in the region — both China and South Korea have corporate tax rates of about 25%, Singapore’s rate is 17%, and Hong Kong has a rate of 16.5%. In the current “Global Competitiveness Report,” Japan is ranked a dismal 114th on “total tax rate as a percentage of profits.”

To revitalize regional economies, the plan also calls for lowering the corporate tax for companies that move their headquarters out of Tokyo and urban centres in the Chubu and Kinki regions. Other measures have also been added to the tax reform package to encourage accumulated wealth to be passed down to younger generations. A gift tax exemption will be granted to parents or grandparents that provide funding for childcare, and the current exemption threshold for gifted housing will be expanded.

The main purpose of the corporate tax rate cut, as envisaged by the Japanese government, is to strengthen the economy by increasing investment without necessarily reducing revenues, while encouraging inflows of FDI. “We aim to stem the flow of Japanese companies leaving the country and promote foreign companies investing here, and as a result, the economy will grow steadily and tax revenue will increase”, Abe said recently at a press conference.

Several empirical studies suggest that the corporate tax is relatively distortionary for economic growth. For instance,

the Cabinet Office (CAO) of Japan has used its Economic and Fiscal Model to assess the impact of corporate tax reform in Japan. CAO estimates that a reduction in the corporate tax burden by 1% of GDP (allowing a reduction by approximately 12 percentage points) will raise GDP over a period of 5 years by 1% compared to the baseline. Economists at IMF find a similar effect of a corporate tax rate cut.

To cover the revenue loss, the Abe administration will expand its size-based taxation, levied even if the company is in deficit, with a focus on large companies. The tax loss carry-forward system, whereby a tax loss in a given tax year may be carried forward for use in sheltering the taxable profits of a future tax year, will be reduced in scope, and more taxes levied on the dividends which companies receive from subsidiaries. Companies that lift their wages to a certain extent, as well as medium-ranked companies, will have their size-based levy reduced.

However, economists warned that despite these measures, it is unlikely that the reform would be self-financing. They believe that, given the tight fiscal constraints faced by the Japanese government, the reform needs to be supplemented by other measures.

5) Stimulate innovation

As part of the Japan Revitalization Strategy the government aims to position Japan as the “world’s most innovation-friendly country.” “Japan will change. Let’s create a country where innovation is constantly happening, giving birth to new industries to lead the world,” Abe said recently at a press conference after a visit to Silicon Valley. To meet this goal, the government has set a target of at least 4% of GDP for total R&D investment by the public and private sectors, and at least 1% of GDP invested in R&D by the government.

According to OECD data, Japan’s GDP on R&D was the fifth highest in the OECD in 2012 at 3.4% of GDP. However, Japan’s TFP growth has been well below the OECD average in recent years, suggesting that Japan’s return on its investment is low.

One reason may be that only 30% of Japanese patents have been exploited internally and less than 10% were licensed to others. Another problem is a lack of skilled labour in science and engineering — by 2007, there were 4.5 job offers for each graduate in science and engineering, compared to a nationwide average of 1.5. Therefore, observers believe that it is important to upgrade the quality of universities and strengthen their links with firms and expand international collaboration in innovation — the number of Japanese universities ranked in the top 500

worldwide (relative to GDP) was well below the OECD median in 2014, suggesting scope to improve quality.

For instance, the OECD recommend improving education quality by promoting the internationalization of universities and strengthening competition — the share of foreign students in Japanese universities was only 4%, in 2012, half of the OECD average of 8%, and the number of branch campuses of foreign universities in Japan fell from around 40 in the early 1990s to five at present. Improving the quality of universities would enable them to make a larger contribution to innovation. Only 0.5% of business-financed R&D in 2013 was carried out at universities, indicating weak linkages between academia and business. Moreover, only 2.6% of research performed at universities was funded by firms. Spending on R&D performed in universities rose by only 12% (adjusted for inflation) in Japan over 2000–12, compared with 50% in Germany and 59% in the US.

Nonetheless, the Abe government expects a prompt return on its investment in research. About a quarter of the science stimulus in the Japan Revitalization Strategy — some ¥224 billion — is allocated for commercialization of university research.

6) Enhance women's participation

The Japanese labour market has considerably tightened over the past couple of years. The unemployment rate is around 3.5%, and an increasing number of enterprises are reporting labour shortages. The tightening of the labour market is partly related to the retirement of the post-war baby-boomers. To dampen this decline, the government has already taken some measures aimed at stimulating the participation of the elderly in the work force. Besides, the government seeks to raise female participation.

In Japan, women are often forced to choose between raising children and pursuing a career — 60% of employed women leave their jobs when starting a family. Hence, the participation rate of women between 30 and 34 years is 10 percentage points lower than for women in the age group 25–29 years. Such a drop is not observed in most other OECD countries. Moreover, Japan's current spending on after-school care is only about a third as much as such countries as UK and Sweden as a share of GDP, with only 38% of women staying in the labour force after giving birth. As a result, employers are often not willing to invest in women's career opportunities. Women are more likely to be in lowly paid part-time jobs than men — in 2013, the gender pay gap at median earnings amounted to 26.5%, the highest in the OECD, after Korea and Estonia.

The low participation of women is a great loss for Japanese society. The OECD estimates that the economy could expand by 20% if the female employment rate were to catch up with the male employment rate over two decades. The IMF instead noted that Japan could increase its per capita GDP by nearly 10% simply by increasing the

number of women in the workforce to the levels seen in northern Europe — current female participation in the Japanese labour force is only 63%, against 76% in Norway.

The government has proposed several measures aimed at removing some obstacles for female participation. “We have set the goal of boosting women's workforce participation to 73% by the year 2020,” Abe said recently. First, the tax system provides strong incentives for spouses to limit their earnings. Under the current tax system, taxpayers can claim special deductions of ¥380,000 from their taxable earnings if their spouse earns no more than ¥1.03 million a year. Moreover, if spouses' earnings are below ¥1.3 million, they are covered by pension, health, long-term care insurance without having to make contributions. The government also intends to create a more family-friendly working environment, more suitable for women who want to combine a career and rearing children. The main initiative is to increase child care capacity to approximately 200,000 children by FY 2015 and 400,000 children by end March 2018. After-school services and day care centres will be developed. These centres should provide places for 300,000 children by March 2020. These measures mainly benefit existing providers, but more could be done to encourage new entrants in this sector. Furthermore, the government wants to encourage the promotion of women to executive and management positions.

Some positive effects of the reforms of the labour market are already visible. For instance, since 2013, a substantial increase in female participation has been observed — the female employment rate has increased by 1.1 percentage points since January 2004 — and also in the share of board seats held by women in Japanese companies. According to a recent survey, this reached 3.1% at the end of FY2014 — still well below international standards, Norway leading the way with 35.5%, the UK 22.8%, and the US 19.2%.

However, some analysts express concerns about potential challenges that could limit the success of the initiatives, particularly related to the work culture in Japan. For many decades, the Japanese workplace has been known for its disciplined workforce. “In practice, this usually means long hours at work, followed by late nights drinking alcohol with colleagues to encourage office cohesion. These customs have endured among the overwhelmingly male workforce but are generally not considered compatible with raising a family, and particularly young children”, said Emma Chanlett-Avery, a Japanese observer at the Congressional Research Service in the US. Most Japanese offices do not offer flexible work hours that would allow parents to adjust their schedules to meet child-rearing demands. Although Japan offers parental leave for fathers as well, statistics show that less than 2% of male workers opt to use the leave, reinforcing the notion that it is the woman's role to care for a new baby. Further, there is no widespread practice of using regular babysitters or nannies to provide for childcare, due in some part to Japan's

restrictive immigration policies that limit the number of potential caretakers from foreign countries.

7) Enable flexible working practices

Prime Minister Shinzo Abe and his government are also expected to tackle job market reform. Proposed reforms include scrapping the three-year limit on temporary positions, as well as doing away with the so-called white-collar exemption, which paves the way for employers to pay white-collar workers by results rather than by hours. Businesses hold that these reforms will boost competitiveness and enable them to respond more flexibly to workers' diverse needs. Labour unions and employees disagree, arguing that such changes will increase the number of temporary positions with no job security, as well as overtime.

The traditional labour system makes getting hired by a Japanese company more akin to becoming a member of an institution, argues Keiichiro Hamaguchi, research director at the Japan Institute for Labour Policy and Training. Once employed as a full-time worker, the person assumes the obligation to do any job, anytime and anywhere, as ordered by the company. Job security until retirement and seniority-based pay are offered in return, effectively setting the person up for life. A company serving as an in-house job market is another characteristic of Japan's lifetime employment. Workers are hired as members of the company rather than for specific tasks, so they can be transferred and reassigned as management sees fit.

This system worked to support Japan's rapid economic growth after the war, with full-time male workers as the backbone of the nation's labour force. It then began to collapse following the bursting of the bubble economy in the late 1990s. Yet the framework remains dominant; this in turn has exposed fissures as full-time jobs have disappeared while those who managed to remain employed faced long overtime hours.

Now, Abe is trying to change the way corporate jobs are structured, but even in this case there are cultural barriers. For instance, Abe has ordered key government panels to look into easing work-hour regulations under the Labour Standards Law so that some workers could be rewarded on the basis of their performance rather than the hours they spend in the office — about 22% of Japanese work more than 49 hours a week, compared with 16% of Americans, 11% of the French and Germans, according to data

compiled by the Japanese government. The Labour Standards Law currently sets the limit on an employee's work hours to eight hours a day and 40 hours a week. Companies are required to pay extra if their employees work beyond such limits, with the exception of workers in management positions. The proposal aims to lift the rules under certain conditions.

During his earlier stint as prime minister between 2006 and 2007, Abe tried to introduce a similar system known as white-collar exemption, under which certain office workers would be excluded from the work-hour regulations under the Labour Standards Law. But he gave up the attempt in the face of strong opposition from labour unions and criticism that such a system would only exacerbate the notoriously long working hours for many of the nation's company employees, possibly resulting in more overwork-induced health impairments.

The pro-business Abe administration is apparently trying to put the idea back on the table in light of the argument from the business community that the wage system in which employees are paid according to the hours they spend at work does not fit the job of many office workers because their performance does not necessarily go up or down in proportion to the length of work hours.

Proponents argue that with the decline in Japan's working population, it is essential that more people who find it difficult to regularly work eight hours a day at workplaces — such as mothers raising small children and people who need to take care of ailing parents — join the labour force through a system that rewards them for the work done, not the hours spent at work. Greater flexibility in employment would indeed be a positive move if it leads to expanding labour participation.

However, the new system would only apply to a narrow range of skilled professionals, around 200,000, less than 4% of Japan's workers. The more contentious question of how and whether to make it easier for companies to fire workers was left unanswered with the government pledging to find a "place for debate" on the issue next year. Whether the changes are a breakthrough or a mere crack in Japan's regulatory dyke remains to be seen. "Changes in labour regulations will be incremental. It's a step forward, but it's not that big," said Robert Feldman, chief economist at Morgan Stanley MUFG in Tokyo. Revamping Japan's rigid employment system will require drastic steps, such as changing the way corporate jobs are structured.

MARKET DEVELOPMENTS

Just as moderate world growth underpins our continued strategy of investing in equities, so the ongoing weakness of Japan and the euro-zone dictates most of this investment being spread around the rest of the world where

the forces of competition and innovation are strongest. With credit bypassing banks and easy money conditions boosting the world economy, and now visible in rising real wages, it will be necessary to tighten monetary policy soon.

Table 1: Market Developments

| | Market Levels | | Prediction for May/June 2016 | |
|---|---------------|--------|------------------------------|---------------------|
| | May 29 | Jun 26 | Previous Letter View | Current Letter View |
| Share Indices | | | | |
| UK (FT 100) | 6984 | 6808 | 9925 | 9674 |
| US (S&P 500) | 2107 | 2102 | 2752 | 2746 |
| Germany (DAX 30) | 11414 | 11473 | 15854 | 15936 |
| Japan (Tokyo New) | 1674 | 1671 | 2283 | 2279 |
| Bond Yields (government) | | | | |
| UK | 1.92 | 2.27 | 2.00 | 2.20 |
| US | 2.11 | 2.41 | 2.10 | 2.10 |
| Germany | 0.49 | 0.86 | 1.50 | 1.50 |
| Japan | 0.40 | 0.46 | 0.70 | 0.70 |
| UK Index Linked | -0.88 | -0.65 | 0.10 | 0.10 |
| Exchange Rates | | | | |
| UK (\$ per £) | 1.53 | 1.57 | 1.56 | 1.50 |
| UK (trade weighted) | 91.8 | 93.2 | 82.3 | 90.6 |
| US (trade weighted) | 103.7 | 102.5 | 85.51 | 100.0 |
| Euro per \$ | 0.91 | 0.90 | 0.79 | 0.91 |
| Euro per £ | 1.39 | 1.41 | 1.23 | 1.37 |
| Japan (Yen per \$) | 124.1 | 124.0 | 98.0 | 120.5 |
| Short Term Interest Rates (3-month deposits) | | | | |
| UK | 0.57 | 0.59 | 1.10 | 1.30 |
| US | 0.28 | 0.28 | 0.70 | 1.10 |
| Euro | -0.07 | -0.01 | 0.50 | 0.10 |
| Japan | -0.10 | -0.05 | 0.70 | 0.20 |

Table 2: Prospective Yields¹

| 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 | 4.65 | 37.15 |
| Germany | 2.60 | 1.4 | 1.5 | 36.00 | 3.34 | 44.84 |
| Japan | 1.70 | 1.4 | 2.0 | 33.00 | 7.31 | 45.41 |
| UK indexed ² | -0.65 | | 1.6 | 1.00 | | 1.96 |
| Hong Kong ³ | 2.60 | 6.8 | 1.6 | 2.00 | 4.65 | 17.65 |
| Malaysia | 3.30 | 5.5 | 1.6 | 58.00 | 4.65 | 73.05 |
| Singapore | 3.50 | 4.5 | 1.6 | 36.00 | 4.65 | 50.25 |
| India | 1.40 | 8.0 | 1.6 | 31.00 | 4.65 | 46.65 |
| Korea | 1.10 | 3.0 | 1.6 | -12.00 | 4.65 | -1.65 |
| Indonesia | 2.20 | 6.1 | 1.6 | 41.00 | 4.65 | 55.55 |
| Taiwan | 2.80 | 3.4 | 1.6 | 29.00 | 4.65 | 41.45 |
| Thailand | 3.20 | 4.1 | 1.6 | 38.00 | 4.65 | 51.55 |
| Bonds: Contribution to £ yield of: | | | | | | |
| | Redemption Yield | Changing Nominal Rates | Currency | Total | | |
| UK | 2.27 | 0.70 | | | | 2.97 |
| US | 2.41 | -3.10 | 4.65 | | | 10.16 |
| Germany | 0.86 | -6.40 | 3.34 | | | -2.20 |
| Japan | 0.46 | -2.40 | 7.31 | | | 5.37 |
| Deposits: Contribution to £ yield of: | | | | | | |
| | Deposit Yield | Currency | Total | | | |
| UK | 0.59 | | 0.59 | | | |
| US | 0.28 | 4.65 | 4.93 | | | |
| Euro | -0.01 | 3.34 | 3.33 | | | |
| Japan | -0.05 | 7.31 | 7.26 | | | |

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 | |
|--------------------------|-------------------------|--------------|-----------------------|--------------|---------------------|--------------|
| | June Letter | Current View | June Letter | Current View | June 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

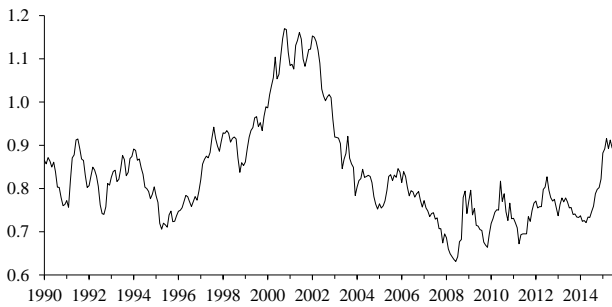
**US : Trade Weighted Index
(Bank of England 1990 = 100)**



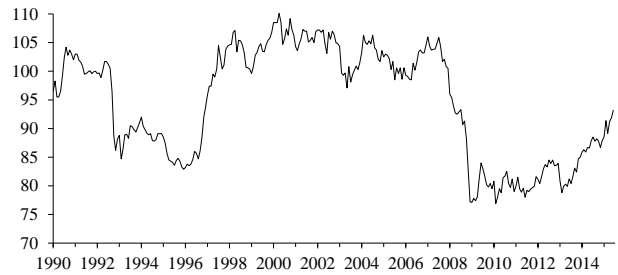
UK: Dollars Per Pound Sterling



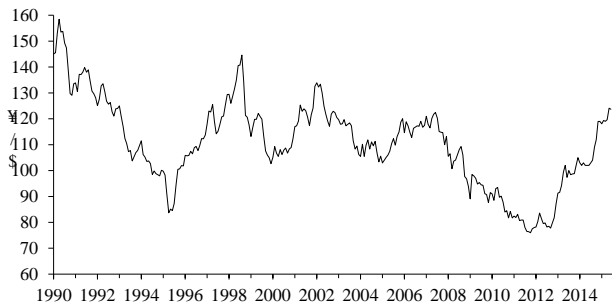
Euro per US dollar



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



Japan : Yen Per U.S. Dollar

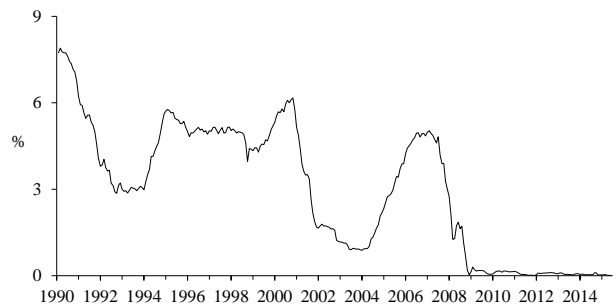


GOVERNMENT BOND MARKETS

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



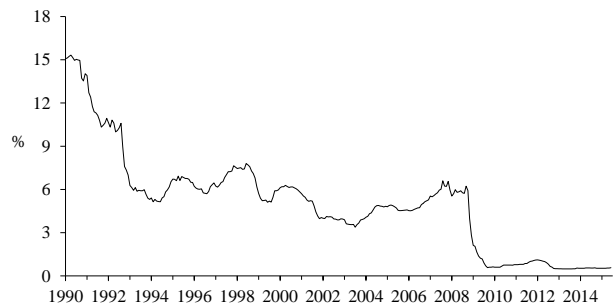
U.S. : 3-Month Treasury Bill



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



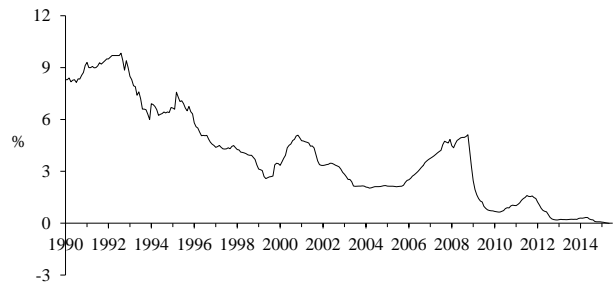
U.K. : 3-Month Interbank Rate



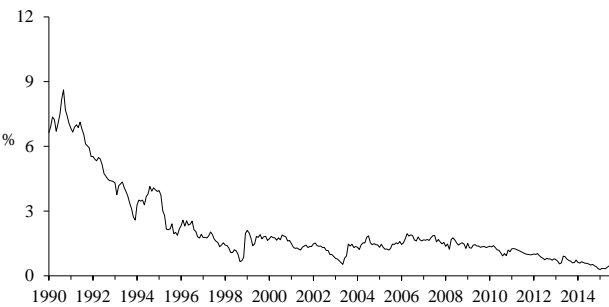
Germany: Yield on Public Authority Bonds



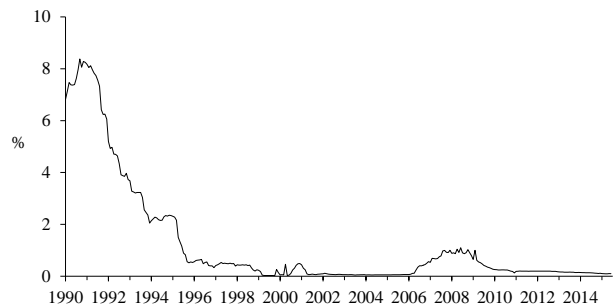
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

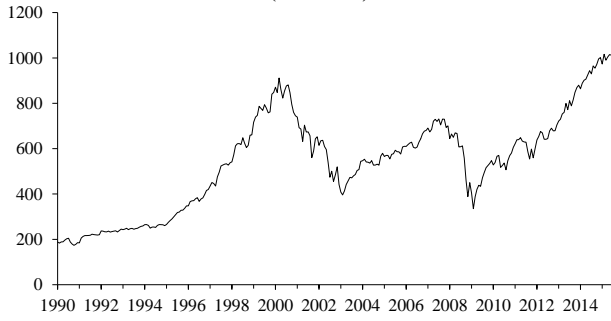


Japan : 3 Month Money Market Rate

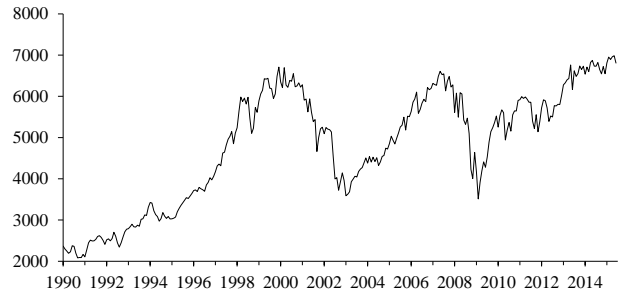


MAJOR EQUITY MARKETS

**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 World Bank expects India's gross domestic product to expand 7.4% this calendar year, 7.8% next year and 8.0% in 2017.

A gauge of services activity in India contracted for the first time in 13 months in May amid a decline in new orders, suggested that growth may be sluggish in India. But, the manufacturing sector gained momentum in May. A gauge of manufacturing activity in India rose to the highest in four months in May, as new orders increased on the back of stronger domestic and overseas demand. The view in India is on the cautious side as the RBI Governor Raghuram Rajan cautioned that India may be hit by external environment and poor rains. Rains, so far, have been better than expected in the month of June.

India's central bank lowered its main policy interest rate for the third time by a quarter-percentage-point in the first week of June and cautioned about risks of a rise in inflation. Now, with a good monsoon, expectations are building up that the RBI has room to cut rates further.

The country's consumer inflation rate edged higher to 5.01% in May, up from 4.87% a month earlier due to costlier fuel. India's exports fell for the sixth month in a row in May, clouding prospects of an export-led recovery in India.

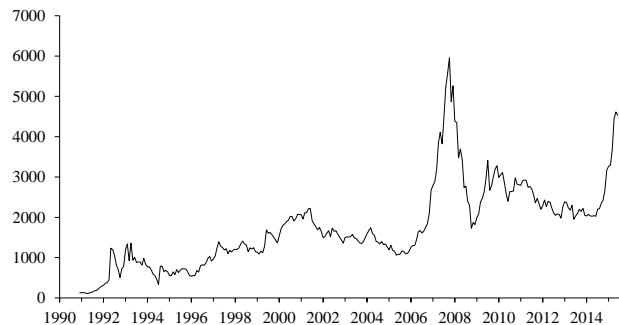
Exports slumped 20.19% from a year earlier to \$22.35 billion, according to the data released by the Ministry of Commerce and Industry. Imports also fell 16.52% to \$32.75 billion, as lower global oil prices helped cut the country's oil import bill by 40.97%. As a result, the trade deficit narrowed to \$10.41 billion in May from \$10.99 billion in April and \$11.23 billion a year earlier. India is asking OPEC members for long-term oil price concessions as it tries to use its growing sway as one of the world's largest crude importers to lock-in supplies.

In order to push the government's Make In India campaign, Finance Minister Mr. Jaitley visited New York, Washington and San Francisco to meet investors and chief executives to persuade them to get off the fence. He told them that "important changes" are being made in government policies every week. A few leaders of the ruling party are embroiled in a couple of corruption and incorrect disclosures. This may waste a lot of time of the parliament in the coming monsoon session.

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 | -30.0 | -32.0 | -35.0 |
| Rs./\$(nom.) | 60.0 | 62.0 | 63.5 | 64.0 | 65.0 |

China

China's economy grew at 7.0% in the first quarter of 2015, the slowest in six years. It is expected that the growth may accelerate modestly in the second half of the year as the government steps up efforts to spur growth.

The central bank has cut interest rates four times since November to spur domestic demand and trim borrowing costs. China's central bank has cut benchmark interest rates to a record low and lowered the amount of reserves certain banks are required to hold now to deal with the stock market slump. The People's Bank of China (PBOC) has cut the one-year lending rate by 25 basis points to 4.85 per cent and lowered the amount of reserves certain banks are required to hold by 50 basis points. Beijing has stepped up infrastructure spending, offered more tax breaks and reduced red tape to lift growth. According to the PBOC, prospect for interest-rate rises in the U.S. will have "limited" direct impact on China, as it is protected by its vast foreign-exchange reserves and its current account remains in surplus.

China's consumer-price index rose 1.2% in May from a year earlier, slower than a 1.5% year-on-year rise in April. Much of the easing in the consumer prices is due to milder increases in food prices, which were up 1.6% on year, against a 2.7% rise in April. CPI is forecast to be 1.4% for 2015, down from the previous estimate of 2.2%.

China is likely to have a current account surplus of 2.9% of the country's gross domestic product in 2015. It previously expected it to be 2.4%. Export growth will be just 4.2% but the contraction in imports widened in May. Domestic demand is still soft. Imports of commodities in volume terms contracted further in May compared with previous months. China's trade surplus is expected to rise to US\$592 billion in 2015 (against around US\$380 billion in 2014) and it would be the largest trade surplus China has ever seen.

China's central bank is preparing to take new steps to lift the global profile of the yuan as the International Monetary Fund reviews whether to grant it elite status as a reserve currency. To win approval from the IMF, Beijing must make the case that the yuan can easily be used in international markets. Potential steps listed in the PBOC report include opening the door wider for foreign central banks and other institutional investors to invest in China's bond market.

Bank of China launched the world's first multibillion four-currency bond deal in the Singapore market to provide funding for China's so-called new Silk Road infrastructure projects. The bank plans to raise at least \$3.5bn by offering bonds in US dollars, euros, Singapore dollars and renminbi, according to merchant bankers involved in the transaction. The bond offering is part of Bank of China's plans to extend \$20bn in credit this year to "road and belt-related projects" — which is along the old land-based and maritime silk routes that stretched from China to European cities as far away as Amsterdam. The so-called new Silk Road is aimed at boosting links and commerce between China and countries on the routes by providing infrastructure and increasing financial and trade ties.

The Shanghai Composite has fallen more than 20% from its recent peak. The decline from its late May high puts the market officially into bear territory. It was a strikingly swift selloff. The benchmark Shanghai Composite Index is still up by more than 100 per cent from a year ago.

| | 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 |

Korea: Composite Index



South Korea

South Korea is gripped with the outbreak of Middle East Respiratory Syndrome, or MERS. South Korea's economy was not doing well, with the Bank of Korea decreasing its full-year growth forecast to 3.1% from 3.4%, and exporters have been calling for action to weaken the won for some time. The threat of MERS, which with 122 reported cases has left nine dead, was the tipping point. The Bank of Korea cut its benchmark rate by a quarter point to 1.5%.

Surprisingly, BOK Gov. Lee Ju-yeol cited MERS as the "biggest factor" contributing to its decision. Normally, with all disease outbreaks, the damage to the economy comes far more from people's aversion behaviour, through their fear of contamination, than from the actual cost of the disease and treatment. For example, more than 54,400 foreign tourists have cancelled their trips to the country since the outbreak in May and sales at department stores plunged 16.5% in the first week of June from a year earlier.

South Korea will draw up a Won10 trillion (\$9bn) supplementary budget to help its already struggling economy cope with the effects of the outbreak of MERS.

Exports dropped 10.9% in May, the biggest fall in six years as the Korean won traded at a seven-year high against the Japanese yen, undermining manufacturers' price competitiveness abroad.

South Korea's won dropped to its weakest level in more than two months in June against the U.S. dollar, one of the biggest victims in Asia, of the falling Japanese yen and the slowing Chinese economy. The won's slide adds to a 3.21% drop in May — the currency's worst monthly performance this year.

| | 13 | 14 | 15 | 16 | 17 |
|-------------------------|------|------|------|------|------|
| GDP (%p.a.) | 3.0 | 3.3 | 3.1 | 3.0 | 3.0 |
| Inflation (%p.a.) | 1.3 | 2.0 | 2.0 | 2.0 | 2.1 |
| Current A/c(US\$ bill.) | 71.0 | 80.0 | 80.0 | 84.0 | 88.0 |
| Won/\$ (nom.) | 1100 | 1080 | 1120 | 1100 | 1100 |

Taiwan

Taiwan is likely to achieve GDP growth of 3.3% in 2015, slightly lower than expectation of 3.7% earlier due to the weakening domestic consumption and global demand.

Taiwan's export as well as imports have slowed down. Taiwan's private investment growth for 2015 is expected to hit 2.73%, a downward revision from an earlier estimate of a 3.91% increase as Taiwan's private sector has grown less willing to invest because of global economic uncertainty.

Taiwan's disappointing export orders for May is impacting the Taiwan dollar. May export orders fell 5.9% from a year earlier, the second consecutive month in which export orders had dropped year-on-year. The central bank is aiming to maintain the US dollar at the NT\$31 mark. It intervened in the market to support the NT\$.

| | 13 | 14 | 15 | 16 | 17 |
|-------------------------|------|------|------|------|------|
| GDP (%p.a.) | 2.1 | 3.7 | 3.3 | 3.5 | 3.6 |
| Inflation (%p.a.) | 1.2 | 1.5 | 1.5 | 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

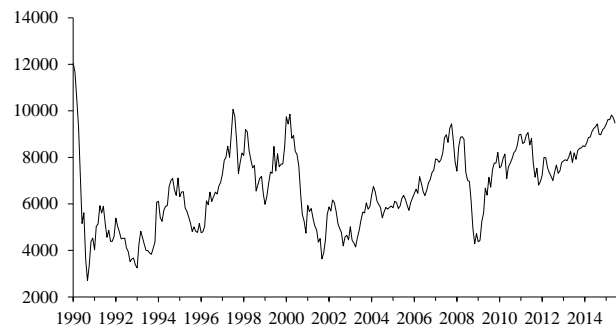
Brazil's economy shrank in the first quarter. The contraction, 0.2% in the first quarter from the last quarter of 2014, was not as bad as expected. President Dilma Rousseff is under pressure to cut spending and raise taxes even as a recession looms. Her approval rating dropped to a record low amid the country's sluggish economic performance and corruption allegations involving the state-run energy company Petrobras.

Employment, which was not affected until last year, has started contracting — 115,599 jobs lost in the formal sector during May; interest rates and inflation are rising. Annual consumer price inflation to mid-June was 8.8%, its highest level for the month since 1996 and nearly double the target of 4.5%.

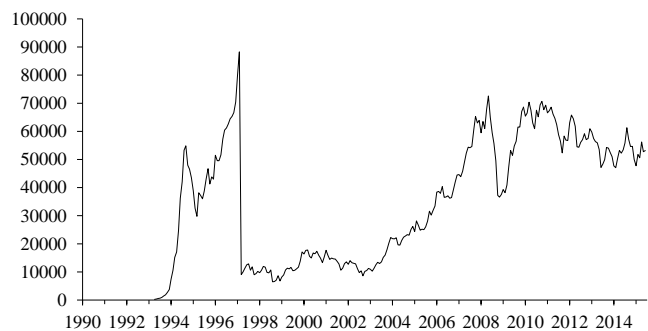
As expected, Brazil's central bank raised its benchmark interest rate by half a percentage point on as inflation remained resilient despite strong signs of recession and showing signs of stagflation. The bank moved the Selic rate to 13.75% from 13.25%. The bank's goal is to slow the 12-month inflation rate to 4.5% by the end of 2016, from 8.2% in April.

In order to protect its investment grade rating, the finance minister Mr Levy has set targets of a primary surplus of

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



1.2% of GDP this year and 2% in 2016. This year's surplus is likely to be a little better than half of what he promised. But that may be enough to satisfy credit rating agencies. The policy shift under Mr Levy has been bigger than expected.

To stave off deep recession, Brazil's is pushing for a large infrastructure boost. The government plans to sell to the private sector new concessions to build and operate nearly 7,000km of roads, as well as four new airports, and a number of ports and railways as part of a \$65bn infrastructure package aimed at propping up the flagging economy. Under the package, Brazil will offer road concessions to connect soyabean growers of the interior to ports, R\$86bn for railways, R\$37bn for ports and nearly R\$9bn for airports, including for the cities of Salvador, Florianópolis, Fortaleza and Porto Alegre. The package also highlighted a plan agreed previously with China to build a \$40bn "bi-oceanic" railway connecting Brazil with the Pacific through Peru.

| | 13 | 14 | 15 | 16 | 17 |
|-------------------------|-------|-------|-------|-------|-------|
| GDP (%p.a.) | 2.5 | 0.1 | -1.2 | 1.0 | 1.2 |
| Inflation (%p.a.) | 5.9 | 6.5 | 7.9 | 6.5 | 6.0 |
| Current A/c(US\$ bill.) | -75.0 | -70.0 | -70.0 | -70.0 | -80.0 |
| Real/\$(nom.) | 2.3 | 2.4 | 2.8 | 2.8 | 2.8 |

Other Emerging Markets

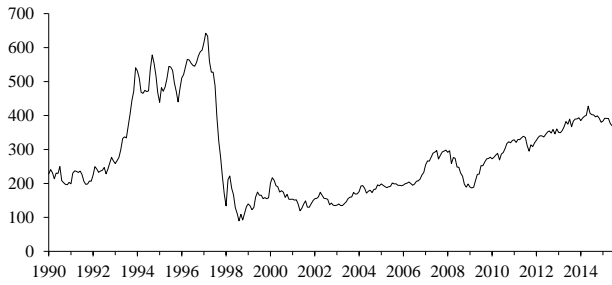
Hong Kong: FT-Actuaries



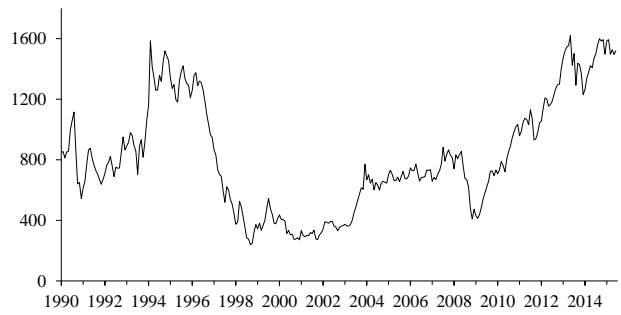
Indonesia: Jakarta Composite



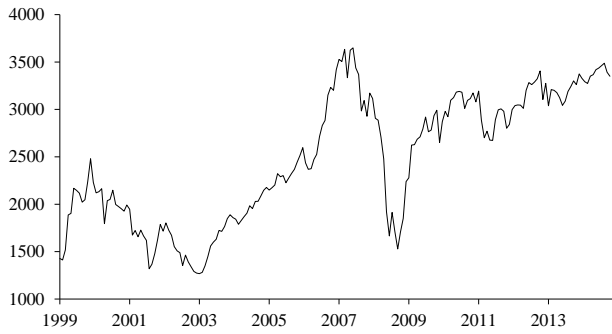
**Malaysia: FT-Actuaries
(US\$ Index)**



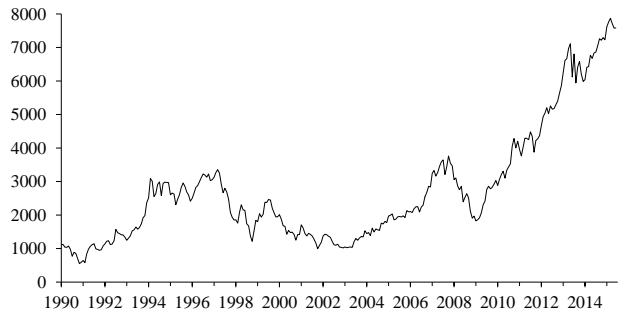
Thailand: Composite Index



Singapore: Straits Times Index

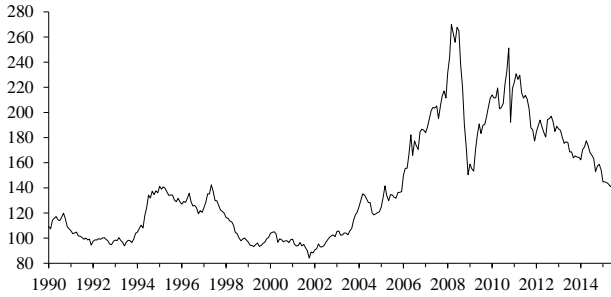


Philippines: Manila Composite



COMMODITY MARKETS

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



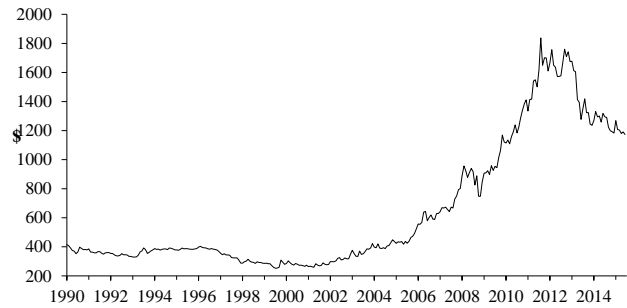
Oil Price: North Sea Brent (in Dollars)



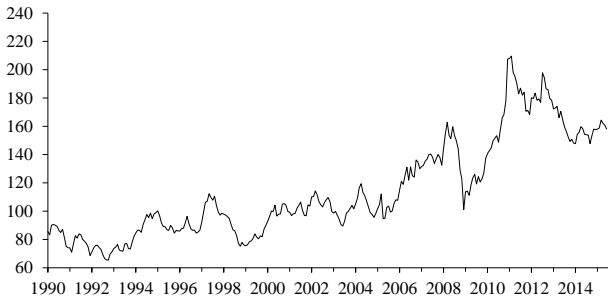
Commodity Price Index (Sterling)
(Economist, 2000=100)



Gold Price (in Dollars)



Commodity Price Index (Euro)
(Economist)



UK FORECAST DETAIL

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

| | Inflation % 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 Product¹ (£ 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) | Debt Interest (£bn) | Current Account (£ bn) |
|--------|-------------------------|------------------------|----------------|---------------------|------------------------|
| | | | Financial Year | | |
| 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 |

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 |

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 |

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 |

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 |

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 |

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.

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