LIVERPOOL INVESTMENT LETTER

December 2012

Cardiff Business School
Cardiff University

Julian Hodge Institute of Applied Macroeconomics

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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The Julian Hodge Institute was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and 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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THE BUREAUCRATIC WRECKING OF THE UK FINANCIAL SYSTEM AND THUS THE ECONOMY

Unfortunately it is difficult to talk about monetary policy today without referring to regulatory policy. These two branches of policy will now be put under one roof, with the new Governor of the Bank of England in charge of both. It is hard to feel much confidence in the future conduct of either branch. True, we have just heard that Mark Carney, current governor of the Bank of Canada, will be that new Bank Governor. He has had a good press and Canada has had a good crisis. But then Canada is not a world financial centre; and Mr. Carney is, it seems, a believer in the current regulatory nostrums of Basel III. So we will have to see if he is a fast learner.

Table 1: Summary of Forecast

		2010	2011	2012	2013	2014	2015	2016
GDP Growth[1]		2.1	0.7	0.8	2.0	2.3	2.5	2.6
Inflation	CPI	4.1	3.9	2.8	2.3	2.0	2.0	2.0
	RPIX	4.8	5.3	3.5	2.9	2.7	2.7	2.7
Unemployment (Mill.)								
	Ann. Avg.[2]	1.5	1.5	1.5	1.3	1.2	1.2	1.2
	4th Qtr.	1.5	1.6	1.5	1.3	1.2	1.1	1.1
Exchange Rate[3]		80.4	79.9	81.7	81.5	81.0	80.7	80.5
3 Month Interest Rate		0.7	0.9	1.2	1.4	2.1	2.5	2.5
5 Year Interest Rate		2.4	2.0	1.6	2.4	2.6	2.8	2.8
Current Balance (£bn)		−48.6	−29.0	−31.6	−32.5	−32.3	−32.2	−32.0
PSBR (£bn)		110.3	120.1	107.6	97.1	58.0	36.3	20.3

[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)

Looking over recent events, we observe that inflation has been above its target for several years. It was forecast to come back below 2% by the end of this year, but it now looks as if it will rise again towards 3% or more over the next twelve months. The Bank's response to this further failure of control is to blame 'individual price rises' yet again; this time it is university tuition fees besides the old favourite of utility prices. Of course any month's inflation figure is bound to be the result of some individual price rises but the point about higher inflation is that this is the way it always presents itself. The Bank has again taken no action in the face of this deteriorating inflation outlook. True, it has not done any further QE but neither has it ruled out more QE. As it has noted the ceding to the Treasury of the debt interest on the gilts it has acquired represents a monetary loosening in the sense that it allows the Treasury to issue less gilts to private lenders than otherwise — it is as if the Bank had done this much QE and bought gilts issues to this amount.

It is now hard to see the Bank as independent of the Treasury and this government. The implicit 'deal' has been that a) there would be fiscal tightening b) this would be 'offset' as far as possible by monetary loosening, regardless of the inflation developments c) there would be extensive regulative tightening of the banking system. The Bank is a wholly-owned subsidiary of the Treasury in any case so none of this is new. What is new is the subservience over the one part of the Bank's remit where it was supposed to have 'instrumental independence', viz the targeting of inflation. The Bank was to be the outward manifestation of the depoliticisation of inflation, the keeper of the new anti-inflation consensus, much like the Bundesbank once was in Germany. Instead it has neglected its credibility and inflation is adrift in a potentially dangerous way.

The one thing that is holding inflation down is the other major failure of this policy: the regulatory attack on the banking system that has resulted in the collapse of lending, especially to small companies. The UK's ramping up of the Basel III requirements for capital and other tiers has made lending highly expensive, particularly for borrowers with high risk status. The point has repeatedly been made by Per Kurowski that Basel anyway biases lending heavily away from risky borrowers since at the margin banks must not only suffer the extra risk of these loans but also load on the extra tier-capital costs the loans imply. Thus banks are incentivised only to lend to 'low-risk' parties — viz certain governments and at a pinch top corporate borrowers.

So we have the worst of all worlds: a paralysed banking system awash with liquidity which it is unwilling to lend, so holding back growth in the economy. However the fears aroused by this liquidity are undermining the inflation target's credibility.

It is said that we need all this regulation to stop future crises. But the evidence we have been able to gather in our recent research on the US, the UK and the euro-area (see my academic page on www.patrickminford.net) suggests that crises will happen anyway and that if we have a banking system that is appropriately active in lending such crises will often involve the banks too. Furthermore, the UK as one of the great banking centres will necessarily have large foreign asset and liability positions: thus has been its role through the ages and a major way the UK has earned its GDP. The liabilities are mainly deposits and the assets loan positions around the world. The Bank has in the past been proud to be the overseer of this activity. Now partly under orders from a government ignorant of such things it is presiding over the ruin of this system in what can only be seen as a colossal loss of nerve.

We need to remind ourselves that efficiency in banking suggests that the margins between deposits and loan rates be kept to the minimum. Individual risk is not social risk in lending; socially there is pooling of individual risks. Society is best off when lending is cheap and priced as competitively as possible — see recent papers on the role of banking and regulation by Anton Korinek (University of Maryland). Recent regulatory action is driving us further and further away from this social objective. It is ironic that the UK government, which should be supporting its major industry, is helping to organise its destruction.

It is said by the Vickers Commission that the investment banks must be deprived of access to deposits that are insured by the taxpayer; hence the proposed ‘ring-fencing’, a sort of bureaucratic Glass-Steagall arrangement. Yet the commercial banks used these deposits to make loans that went as badly wrong as did the investment banks with their more exotic loans. Deposit insurance is there to prevent runs on banks by making small depositors feel secure. Banks still lose money if they make poor loans , surely a powerful incentive against the ‘moral hazard’ of being secure about keeping their depositors.

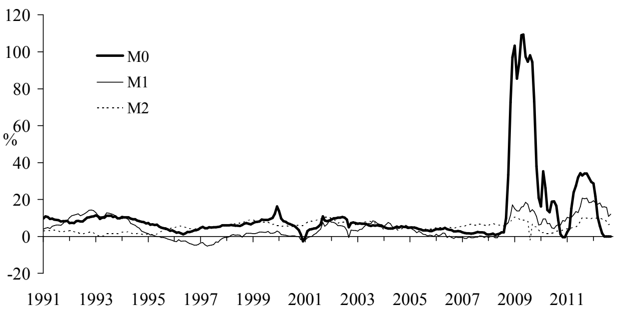
The main implication of the social optimum is that we need competition between banks, to drive down rates and encourage lending again. Bureaucratic schemes like ‘Funding for Lending’ cannot substitute for such incentives.

When policy is so badly adrift, it is hard to know what advice to give for that branch of it that merely deals with monetary policy. Some SMPC colleagues have naturally been impressed by the banking paralysis and the slow growth in the economy of which this paralysis is an important cause; these have prompted them to recommend keeping rates low and open the QE taps more. Yet it is obvious that these actions have not led to any rise in lending nor have they produced (as a result of this failure to stimulate lending) a healthy rise in the money supply. All that has been achieved is a very low cost of government borrowing and record low returns to savers on safe assets.

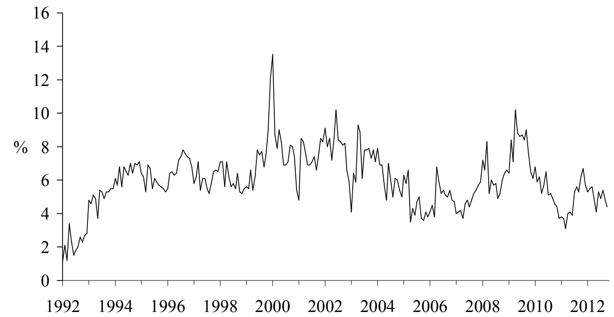
Getting monetary policy right however could lead to an improvement in regulatory policy, since then the government would realise that it could not rely on monetary ease to substitute for excess regulative enthusiasm. It would be forced to ease the regulative burden by the need to get lending and money supply growth and so growth in demand going up again against a backdrop of rising interest rates and reversed QE.

It is for this reason that we suggest interest rates be raised forthwith by 0.25% with a bias to raise further in a steady manner. QE should be stopped and reversed steadily over the next twelve months. These actions should be taken to remove the future threat to inflation posed by the QE-induced liquidity overhang; and by the loss of Bank credibility over its inflation target. As monetary policy is returned gradually to normality, excess regulative burdens should be removed from the banking system and competition reintroduced in a manner mimicing the entry of building societies into the banking high street in the 1980s and foreign banks in the 1990s. To help this process on its way the Treasury should dispose of its stakes in Lloyds and RBS by breaking these huge banks up into competing parts.

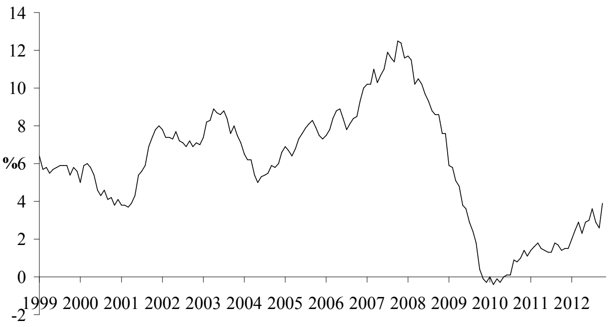
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



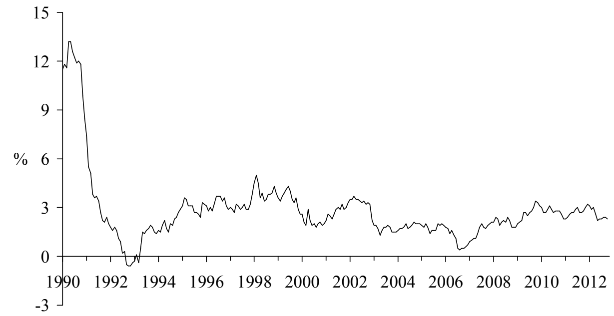
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Outlook for domestic buying of JGB and Japan fiscal debt (Part II)[1]

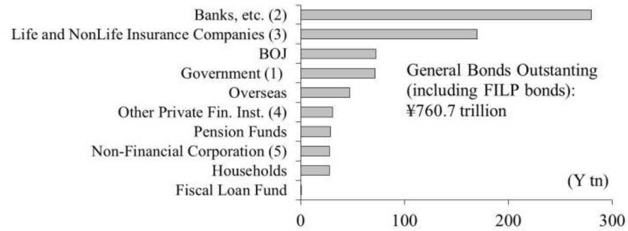
Who holds the public debt?

The huge asset holdings of domestic funds, a reflection of the long-running financial surplus, have allowed the Japanese government to finance its budget deficit without difficulty. The supply of JGBs has been absorbed mainly by domestic investors who now hold more than 95% of the outstanding stock, amounting to ¥761 trillion at the end of FY 2011 (March 2012).

Chart 16 shows an intense preference for JGBs among both individual and institutional investors. Among institutional investors the public sector, the banking system and the insurance companies play important roles. Public sector holdings of JGBs are substantial: the public pensions (GPIF), the Fiscal Loan Fund and the BOJ together hold over ¥145 trillion, that is almost 20% of outstanding JGBs.[2]

The banking system (including the Japan Post Bank, Securities Investment Trust and Securities Companies) holds over ¥310 trillion in JGBs, that is about 41% of the total. Its JGB holding has increased over the years thanks to a decline in the loan–deposit ratio from over 110% in March 1998 to 74% in March 2012. In general, the amount of JGBs held by domestic banks has an inverse correlation with their loans outstanding (Chart 17); when economic activity is depressed, the correspondingly lower risk appetite in the economy results in an increase in bank deposits and, with loan demand also depressed by the economy, banks purchase more JGBs. In addition, banks may have found the JGBs attractive because the investment does not involve currency risk, which has been historically high for foreign bonds, and because JGBs also helped to meet capital adequacy requirements (they are assigned zero weights in calculating the risk-weighted assets that determines the minimum amount of capital banks must hold).

Chart 16 - Breakdown of JGB Holders (March 2012) (source: BOJ)



(1) ex public pension; (2) includes Japan Post Bank; (3) includes Japan Post Insurance; (4) includes Securities Investment trusts and Securities Companies; (5) including Private Nonprofit institutions serving households

Chart 17 - Loan-Deposit ratio of Domestic Bank (source: BOJ)

Japan's insurance companies (including Japan Post Insurance) are one of the main conduits through which the country's enormous pool of private excess savings flow into JGBs. Their holdings of government bonds have increased since the end of the 1990s and reached over ¥170 trillion in March 2012, that is more than 22% of the total amount outstanding. Two factors contributed to such portfolio shifts. First, life insurance companies have to decrease their risky-asset portfolio shares and increase liquid asset holdings in preparing for future increases in life insurance payouts. They attempt to match the timing of payouts and the maturities of the JGBs they hold. As a result, the average maturity of their JGB holdings has become substantially longer. Secondly, new accounting regulations from the mid-2000s forced life insurance companies to evaluate their assets in economic/fair value terms. As a consequence, they had to increase their holdings of safe/liquid assets, and hence their holdings of JGBs.

Among individual investors, households and corporate have been major JGB buyers. Although their direct holdings are limited, households hold a large amount of JGB indirectly through bank deposits and the postal saving system, while banks absorbed surplus funds from non-financial companies in the form of debt repayment and then

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[1] Part I appeared in the November Letter.

[2] In October 2007 former Prime Minister Junichiro Koizumi initiated the privatization process of the Japan Post Group which will be completed by 2017. The Group consists of five companies: Japan Post Service, Japan Post Network, Japan Post Insurance and Japan Post Bank. The latter runs the postal saving system, the largest holders of personal savings in the world and, as of March 2012, it holds ¥144 trillion of JGB, that is 19% of the total amount outstanding, while the Japan Post Insurance holds Y64 trillion of JGB (8.4%). For calculation purposes, these two entities have not been considered public and are included among "Banks" and "Life and Non Life Insurance Companies" respectively.

used the proceeds to invest in the JGB market.[3] As of March 2012, household direct holdings amounted to almost ¥28 trillion, 3.6% of the total, while the corporate sector held ¥27 trillion (3.5%).

Foreign investors have steadily increased their appetite for JGBs during last decade. After peaking in September 2008, investment in the JGB market contracted during the financial crisis but then resumed and reached ¥47 trillion on March 2012, 6.2% of the total amount outstanding. However, the foreign share is still low by international standards. For instance, in the UK foreign investors represent 32% of the total, in the US 45%, in Germany 56% and in Italy 45%. One explanation is that foreigners are concerned that the Japanese government cannot make meaningful progress in fiscal consolidation. This view is supported by the fact that most of the purchases are of the short-term maturities.

Will the government be able to finance future debt?

Economists and financial analysts are wondering if the government is able to continue financing its debt — in other words, whether it has liquidity problem. To answer this question we need to look at the portfolio choices of domestic JGB investors.

First of all, recent research contends that the role of the household sector in providing funds to the JGB market is likely to decline. Households' financial assets are very large, even in an international perspective (Japan ranks next to the US on both an aggregate and a per capita basis). But recently it has fallen in size because of stagnant labour income and population ageing. Total financial assets after peaking in June 2007 at ¥1,601 trillion have declined in March 2012 to ¥1,518 trillion. The asset surplus, i.e., assets less liabilities, has shrunk by ¥69 trillion over the same period.

A recent study reveals that given the pace of asset decline and of JGB increase from the budget deficits, JGBs outstanding will exceed household assets in few years and at that time Japan would be insolvent as a nation.[4] Other simulation results show that, despite keeping the saving rate constant, domestic financing of the public debt could become more difficult between 2015 and 2020 as, by that time, gross public debt will exceed gross households' financial assets.[5] Moreover, academics and observers indicate that Japanese households' home bias is expected to fall in the near future as a result of ongoing globalization of financial markets and the growing amount of financial

Chart 18 - Household Assets Share (source: BOJ)

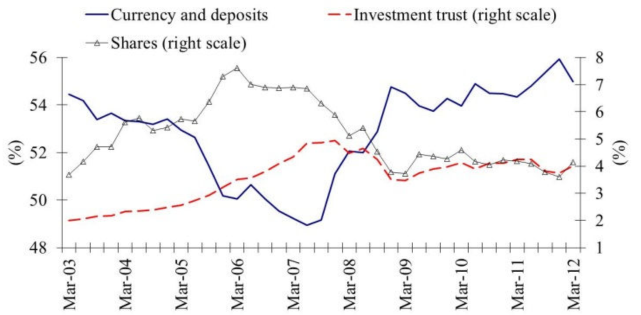
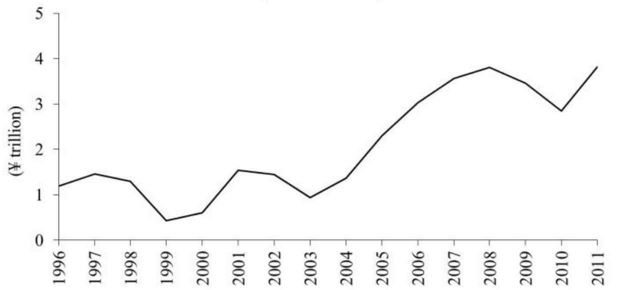


Chart 19 - Direct Investment Income (source: BOJ)



information and products available to them.[6] Chart 18 shows that before the global financial crisis, households were moving out from cash and deposits toward riskier assets, such as investment trusts and shares.

Since households holds over ¥780 trillion deposits and over ¥420 trillion are invested in Insurance and pension reserves, a shift in behaviour could significantly reduce the availability of funds to financial institutions and have a significant impact on the JGB market.

The role of the corporate sector in financing public debt may also become more limited in the future. If the economic environment improves, the corporate sector may find alternative and more lucrative ways to invest their large surpluses. They might stop paying down their debt and, as investment opportunities arise, they might increase their borrowing from banks which in turn could reduce their purchase of JGBs. Or, continued economic stagnation and political uncertainty may convince more Japanese manufacturing firms to shift their production abroad, a trend that accelerated before the global financial crisis as can be seen from the recent increase in direct investment income (Chart 19).[7] Corporations then might draw down their savings to invest abroad. Simulation results from economists at the IMF show that if corporate surpluses

[3] If indirect channels are taken into account, households finance at least 63% of the total amount JGB outstanding, that is over ¥480 trillion.
[4] Hoshi and Ito, (2012).
[5] Tokuoka (2010).
[6] Horioka (2010).
[7] Japanese firms do 30% of their manufacturing overseas, twice as much as in the early 1990s.

come down to zero from 6% of GDP in 2010, banks' net government security purchases could fall by 2–4% of GDP.[8]

Domestic banks could also find it difficult to build up JGB holdings. So far, a growing deposit-lending gap has enabled Japanese banks to markedly increase their JGB investments, but this gap could narrow in the years to come as estimated by economists at Goldman Sachs. They predict a reduction in household's bank deposits, as a reflection of population ageing, partially offset by a rise in corporate deposits and a fall in corporate loans, amid weak economic growth. Assuming a constant JGB build-up, they also estimate that by 2016 the gap will be of the same size as bank JGB holdings. At that point, they say, it will be more difficult for banks to increase JGBs in their portfolio.

There is also the prospect of a decline in home bias.[9] In the current global financial turmoil, institutional investors may have temporarily sought safety in domestic assets including JGBs. Appetite for risky foreign assets could return once financial market conditions recover. Similarly, a sudden increase in the perceived risk of JGBs could produce potential losses in financial institutions' portfolios, especially among smaller banks which have increased the proportion of government debt in their portfolios, and determine a readjustment of their balance sheet composition.[10] According to a recent study conducted by economists at the BOJ, a 100 basis points increase in JGB yields is estimated to cause about ¥4.7 trillion yen of losses for Japanese banks collectively. This is about 11.7% of the Tier I capital and about twice as much as the income before tax for fiscal year 2010.

The absorption capacity of public financial institutions, the Japan Post Bank, the Japan Post insurance, and the public pension fund (GPIF), is expected to shrink as demographic trends put more pressure on the liabilities side of their balance sheets. The Japan Post Bank, which runs the postal saving system, the largest holders of personal savings in the world with over ¥175 trillion of deposits, is planning to diversify its holdings in an effort to reduce the risks of over-concentration in JGBs — as of March 2012, the Japan Post has ¥144 trillion in JGB, that is 19% of the total amount outstanding or 74% of its assets. Similarly, the GPIF, the largest pension fund in the world, has no longer an obligation to purchase JGBs, and is now looking to expand its investment in risky assets with higher returns to cover bigger payouts (the GPIF holds ¥71 trillion of JGB, almost 64% of its assets).[11] The Japan Post Insurance invests two thirds of its assets in JGB, that is ¥64 trillion (8.4% of the JGB total amount outstanding). However, it is planning to trim its investment in JGBs in the near future to seek higher returns by buying more corporate and regional bonds. Overall, given the large asset size of these financial institutions, even a small shift away from JGBs could have unsettling implications for the market.

Among private financial institution, insurance companies and pension funds have remained stable buyers of JGB over the last decade but as population aging continues, total insurance and pension payments will begin to exceed the inflows of new insurance contract payments and contributions to pension funds. So while they might have an incentive to sell their JGB holdings in the long term, they are expected to provide strong support to the Japanese government over the immediate future.

Lastly, the BOJ, which holds 9.5% of total JGB outstanding, is likely to continue playing an important role in market stability. Its decision in early 2009 to increase its monthly purchase of JGBs (currently at ¥21.6 trillion per year) has helped to stabilize market conditions, but over the medium term unwinding of monetary easing may require the BOJ to scale back the size of its JGB holdings. There is also an internal limit for BOJ public debt monetisation, the "banknote rule" which limits the balance of its bond holdings to the value of banknotes in circulation. However, for the first time, in August 2012 this limit was surpassed.

[8] Lam and Tokuoka (2011).

[9] Walker (2005).

[10] Those financial institutions specialized in small-firm lending including postal savings banks and agricultural lending, have been accumulating a large share of JGB in their balance sheet with the conviction that they will be rescued by the financial authorities if a crisis occurs (Iwaisako, 2012).

[11] Under a five-year investment plan announced in March 2010, the GPIF said it would allocate about two-thirds of its assets to domestic bonds, 11% to Japanese stocks, 8% to foreign bonds and 9% to overseas equities, with the remainder in cash.

MARKET DEVELOPMENTS

With bond yields at all time lows and the world economy picking up again after a brief slowdown in 2012, equities all around the world look the best investment opportunity. While there is still a dominant central bank orthodoxy in favour of money printing and extra low interest rates this is likely to change as world inflation worsens again and growth improves. Bond yields are likely to rise- so investing in bonds at present is to be avoided.

Table 1: Market Developments

	Market Levels		Prediction for Oct/Nov 2013	
	Oct 24	**Nov 28**	**Previous Letter**	**Current View**
Share Indices				
UK (FT 100)	5805	5803	8492	8548
US (S&P 500)	1409	1410	1599	1600
Germany (DAX 30)	7193	7343	9149	9267
Japan (Tokyo New)	743	771	890	923
Bond Yields (government long-term)				
UK	1.84	1.77	2.10	2.10
US	1.77	1.62	4.00	4.00
Germany	1.56	1.37	4.00	4.00
Japan	0.78	0.71	1.50	1.50
UK Index Linked	0.11	–0.30	–0.40	–0.40
Exchange Rates				
UK ($ per £)	1.60	1.60	1.58	1.58
UK (trade weighted)	83.5	83.6	81.3	81.3
US (trade weighted)	80.2	81.0	80.5	80.5
Euro per $	0.77	0.78	0.79	0.79
Euro per £	1.23	1.24	1.25	1.25
Japan (Yen per $)	79.8	81.8	81.0	81.0
Short Term Interest Rates (3-month deposits)				
UK	0.65	0.61	1.40	1.40
US	0.30	0.25	0.60	0.60
Euro	0.15	0.11	2.50	2.50
Japan	0.20	0.12	0.40	0.40

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.70	2.0	2.3	43.00		51.00
US	2.10	2.5	2.0	9.00	1.13	16.73
Germany	3.30	1.5	1.7	23.00	–0.79	28.71
Japan	2.50	1.7	0.0	18.00	2.09	24.29
UK indexed[2]	–0.30		2.2	–8.00		–5.73
Hong Kong[3]	2.40	7.5	2.0	–4.00	1.13	9.03
Malaysia	3.10	5.2	2.0	39.00	1.13	50.43
Singapore	3.60	4.4	2.0	22.00	1.13	33.13
India	1.50	6.5	2.0	3.00	1.13	14.13
Korea	1.20	3.5	2.0	–20.00	1.13	–12.17
Indonesia	2.40	6.5	2.0	33.00	1.13	45.03
Taiwan	3.60	3.5	2.0	25.00	1.13	35.23
Thailand	3.00	4.4	2.0	25.00	1.13	35.53

Bonds: Contribution to £ yield of:

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.77	–3.30		–1.53
US	1.62	–23.80	1.13	–21.05
Germany	1.37	–26.30	–0.79	–25.72
Japan	0.71	–7.90	2.09	–5.10

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.61		0.61
US	0.25	1.13	1.38
Euro	0.11	–0.79	–0.68
Japan	0.12	2.09	2.21

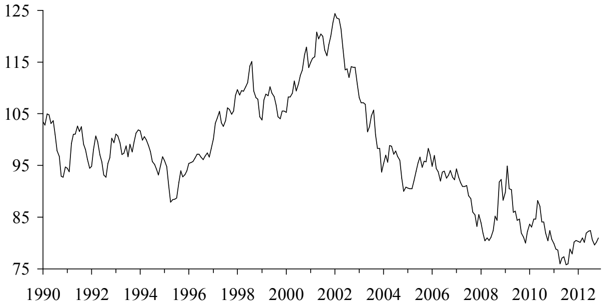
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

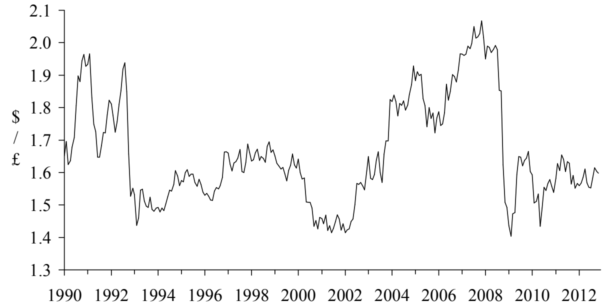
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	November Letter	Current View	November Letter	Current View	November Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
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

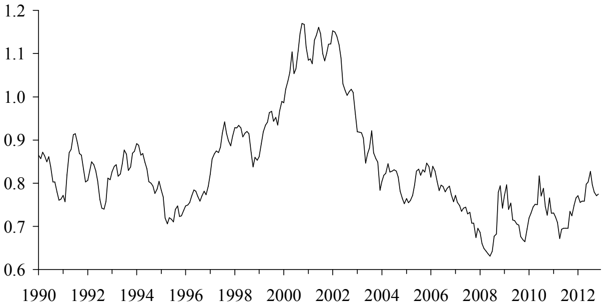
US : Trade Weighted Index
(Bank of England 1990 = 100)



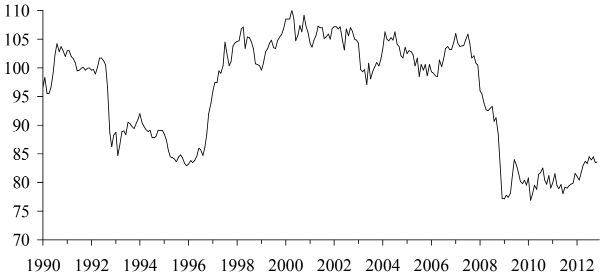
UK: Dollars Per Pound Sterling



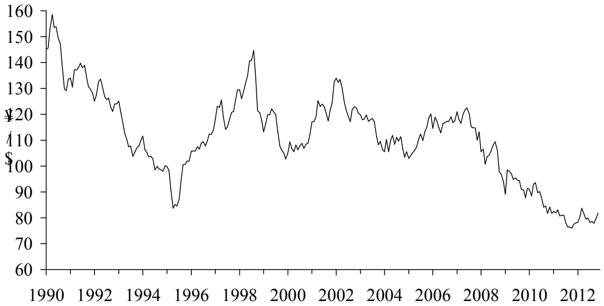
Euro per US dollar



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

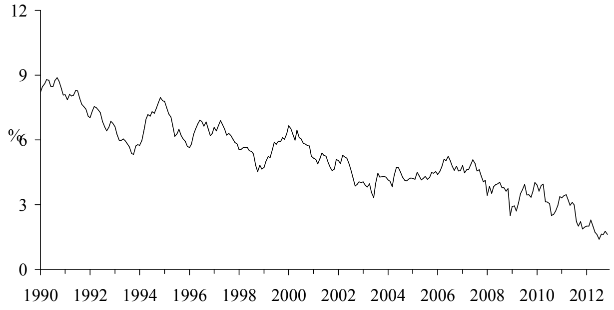


Japan : Yen Per U.S. Dollar

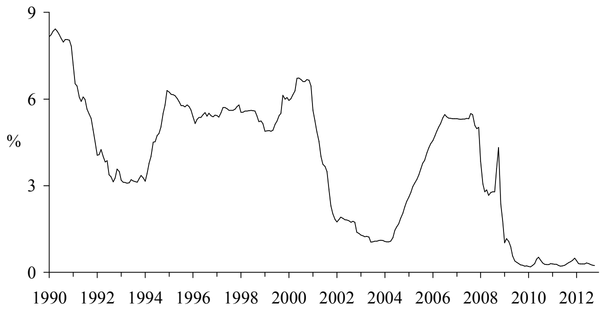


GOVERNMENT BOND MARKETS

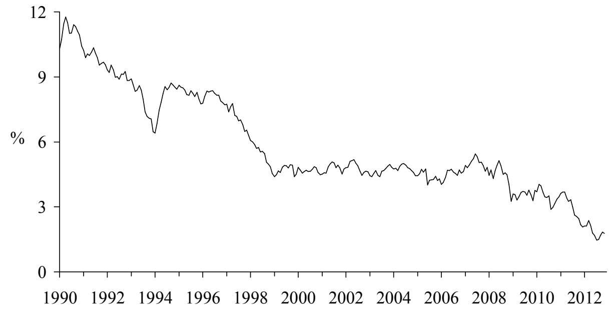
U.S.: Yield on Long-Term Government Bonds



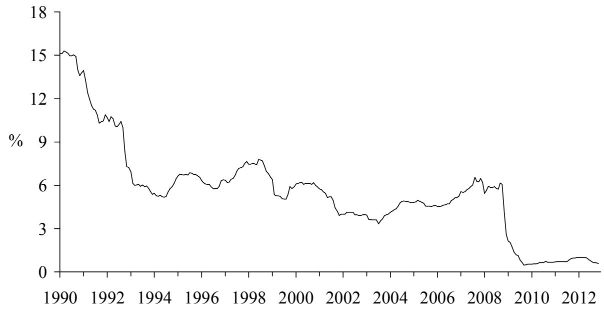
U.S. : 3-Month Certificate of Deposit



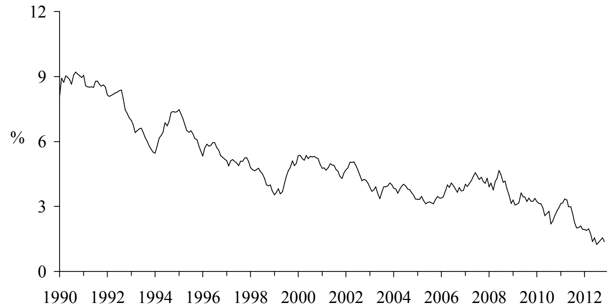
U.K. : Yield on Long-Term Government Bonds



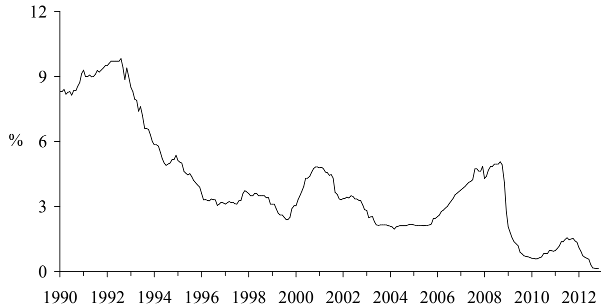
U.K. : 3-Month Interbank Rate



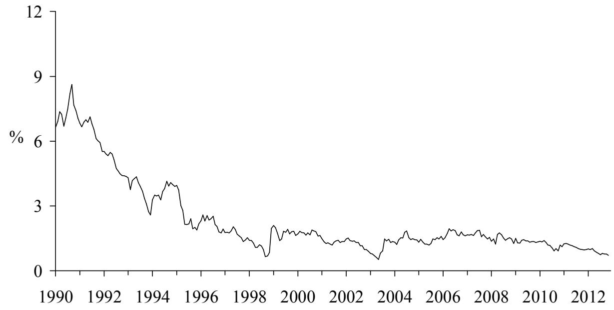
Germany: Yield on Public Authority Bonds



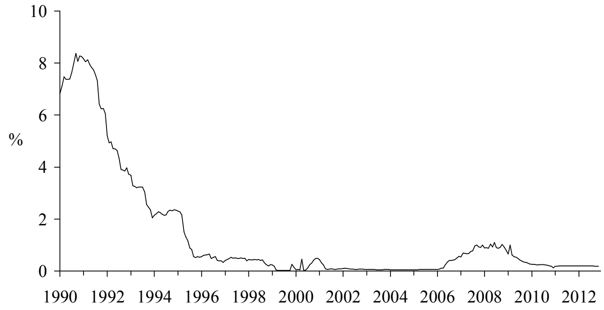
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

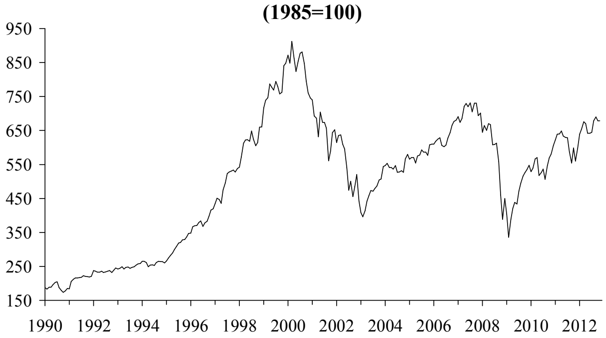


Japan : 3 Month Money Market Rate

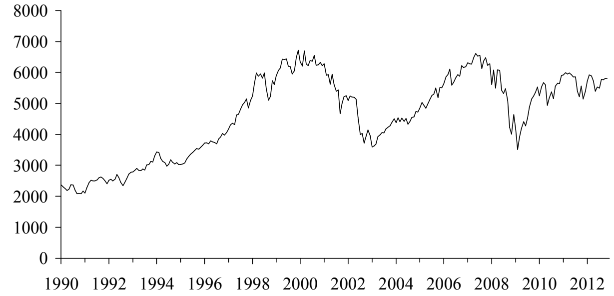


MAJOR EQUITY MARKETS

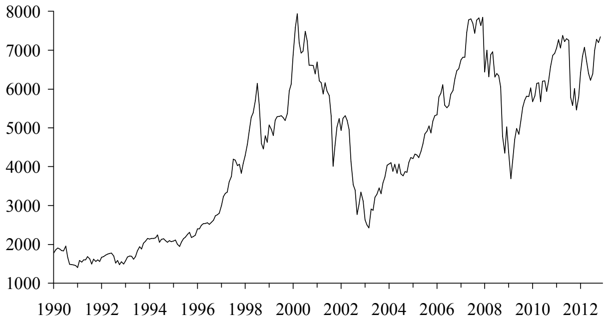
U.S. : S & P 400 Industrial
(1985=100)



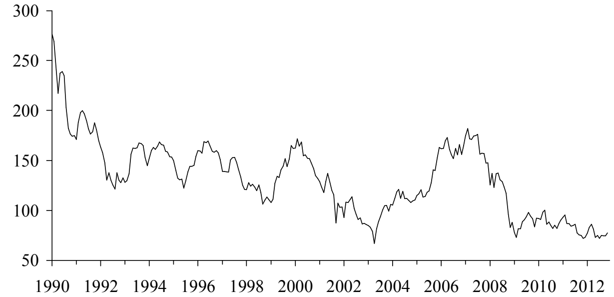
U.K. : FTSE-100 Index
(10 April 1962=100)



Germany : DAX 30



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



EMERGING MARKETS

Anupam Rastogi

India

The Indian economy is likely to have grown at 5.5 % in the July–September quarter, posing a "difficult situation," according to the country's finance minister, P. Chidambaram. The government has admitted that delays in a large number of infrastructure projects due to late clearances have played a part in the overall slowdown.

The gross domestic product data for the July–September quarter is due on November 30. Growth in Asia's third largest major economy touched its slowest pace in almost a decade as global crisis and high interest rates at home hurt demand. India is facing a slowdown due to stalling domestic investment and a weak global economy. But, if one is to believe the stock market, it has changed now. The bell weather stock index, the BSE Sensex, touched its highest since April 2011. The market is rising as government is able to sort out its political realignment and trying to reduce fiscal deficit.

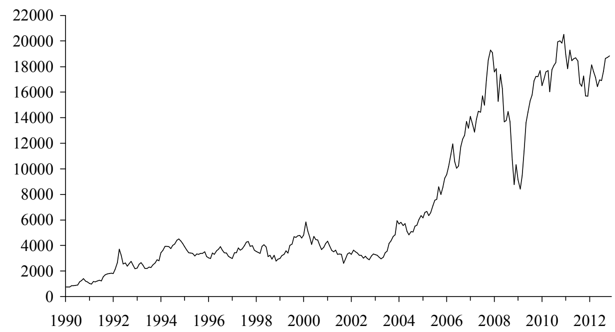
Since September the government has take several measures to rein in its widening fiscal deficit and improve investor sentiment in the economy. It raised fuel prices to reduce its subsidy burden and eased restrictions on foreign investment in important sectors such as retail and aviation to attract overseas capital.

India's inflation eased to 7.45% in October from the previous month's 7.81%, but factory output unexpectedly contracted in September. This has raised hopes for a rate cut by the Reserve Bank at its policy meeting in December. The central bank governor, however, is not giving in to political pressure. At its most recent policy review on October 30, the bank indicated that it might cut in the first quarter of 2013, when it expects inflation to begin easing significantly. The government, disappointed by the governor's obduracy, said that "If the government has to walk alone to face the challenge of growth, then we will walk alone." The RBI decided to leave its key lending rate unchanged at 8.0% for the fourth straight time since April.

India's trade gap rose to $20.96 billion from $18.08 billion in September as the country's heavy dependence on imports to meet its oil needs pushed up overall imports, while weak demand in the U.S. and Europe led to a decline in exports.

The Indian rupee fell to its lowest level in more than two months against the U.S. dollar Friday as investors spurned assets perceived as risk-sensitive due to concerns that the U.S. may not avoid the approaching fiscal cliff. The dollar is trading above 55 rupees in November.

India: BSE Sensitive



The BSE Sensex touched a 19-month high after the government got parliamentary approval to let foreign supermarkets set up shop in India. With political realignment of interest, India can look forward to strong growth recovery and moderate inflation.

	09-10	10-11	11-12	12-13	13-14
GDP (%p.a.)	7.4	7.5	6.9	5.8	6.5
WPI (%p.a.)	9.5	9.0	7.5	7.5	7.0
Current A/c(US$ bill.)	-14.0	-31.0	-40.0	-35.0	-30.0
Rs./$(nom.)	48.0	49.0	49.5	54.5	52.0

China

China's economy is set to accelerate briskly in the next two years, according to the Organization for Economic Cooperation and Development. China's growth, which has been recording double digits for years, will slow to a decade-low 7.5% this year as a result of weak export markets and Beijing's efforts to curb surging prices. The OECD seems to be right, as profit at major Chinese industrial enterprises grew at a surprisingly strong rate in October as margins expanded. The preliminary China Manufacturing Purchasing Managers Index also shows that China's manufacturing activity expanded in November — the first expansion in 13 months.

Better than expected recovery is pushing the Chinese Yuan against the U.S. dollar to a fresh high. The dollar is hovering around CNY6.22. The People's Bank of China has set the dollar/yuan central parity rate at 6.2858. The US Treasury declined to name China as a currency manipulator in a regular report.

In order to further expand its securities industry, China has cut the capital-reserve requirement for securities firms and expanded the range of financial products they may invest in. Brokerages that engage in asset management must now set aside as reserves 1% to 2% of the amount under management, down from the previous 2% to 4%, according to the China Securities Regulatory Commission. This follows a cut in April that reduced the reserve requirement from between 5% and 8%.

China, in general, and the Communist Party of China, in particular, are showing uneasiness over the lack of meaningful economic reform under the tenure of Mr. Hu and departing Premier Wen Jiabao. Their critics often point out that Mr. Jiang presided over a period of bold reforms, including a sweeping shake-up of the state sector, a restructuring of the banking industry, and a successful campaign to win China entry into the World Trade Organization. All isn't lost. At the least, China's new leaders are competent administrators. Six of the seven have run provinces or municipalities as big as many European countries. Five of them have run export-focused, business-friendly coastal areas. The need for economic change, with a stronger role for domestic consumption in underpinning growth, is well recognized within the party.

Mr. Xi, the new head of administration as well as the party, may have a ready-made economic agenda. Premier Wen Jiabao had ordered two big initiatives by the end of the year. One is a planned overhaul of rural law designed to reduce the power of government officials to expropriate rural land and to improve compensation for farmers whose land is expropriated. Another is a proposal to reduce China's gaping income inequality. The latter is expected to call for an increase in taxes on the wealthy and, perhaps, a cap on salaries of top executives at state-owned firms.

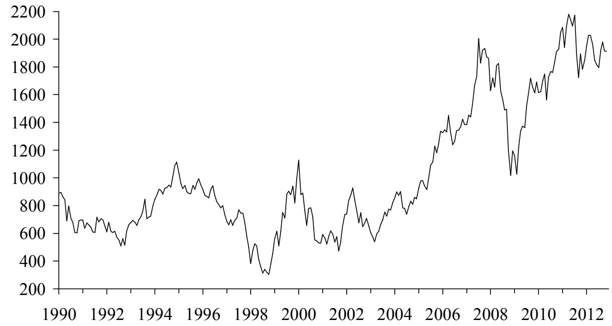
The real hint about the direction of reform will come next month when the Central Economic Working Conference sets the target for 2013 GDP growth. If it is cut to 7% from this year's 7.5% goal, that may mean the government is willing to accept slower growth while it makes changes needed to rebalance the economy away from reliance on exports and investment.

	09	10	11	12	13
GDP (%p.a.)	8.7	10.3	9.2	7.5	7.5
Inflation (%p.a.)	-0.8	5.9	4.3	2.2	2.7
Trade Balance(US$ bill.)	180	183	155	140	130
Rmb/$(nom.)	6.8	6.6	6.3	6.3	6.3

South Korea

The Bank of Korea cut the base interest rate twice this year, in July and October, lowering it to 2.75% to boost economic growth. The government unveiled $12.7 billion of stimulus packages. The result has been revival of economic growth. South Korea's economy grew 1.6% in the third quarter compared with a year ago, according to the Bank of Korea. That followed 2.3% growth in the previous quarter. It grew 0.2% between the second and third quarters. However, the Korean economy seems to have bottomed out. Industrial production figures due for release on November 30 are likely to show an expansion of 1% in October. According to OECD, South Korea's economy appears to have bottomed in the third quarter.

Korea: Composite Index



The pickup in economic growth may see inflation inching up from 1.6% in the third quarter back into the Bank of Korea's 2%–4% target band, with consumer prices rising 2.7% next year. The economy is over burdened from high levels of household debt and "financial turbulence in the world economy" and the outlook for China, which sucks up a quarter of Korea's exports.

The Korean currency is up some 9% against the dollar since this year's low in May and has jumped 14% against the yen which has been undercut recently by expectations that Japan will take more aggressive action to weaken its currency.

The Seoul government has been very wary of the won's recent advance, just this week tightening currency derivative limits in an attempt to stem volatility. The finance ministry has imposed upon the Korean banks a limit of forward positions of 30% of their capital, down from a current 40% cap. Foreign banks in Korea will be limited to forward positions of no more than 150% of capital, down from 200% now. The move was to dampen the won's rapid appreciation as it could threaten financial stability.

South Korea's exports in October rose for the first time in four months with a 1.2% year-on-year gain. South Korea's current account surplus more than doubled to $6.07 billion in September from the previous month because of falling imports with the economy slowing fast.

South Korea's presidential campaign officially started on November 25th as nominees from the two leading political parties formally registered for the Dec. 19 election and vied for the supporters of an independent candidate who decided to quit. The contours of the race — whether it would involve two main candidates or three — had been unclear since Ahn Cheol-soo, a software millionaire who became a technology professor and lecturer on social ills, announced in September that he would run.

Ms. Park — the third candidate and daughter of the Korean dictator — would easily win the election if it remained a three-way race with Messrs. Ahn and Moon dividing liberal-leaning voters. Ms Park's opponents have suggested that she shares the authoritarian style of her father, noting that she served as his first lady for five years following her mother's murder in 1974. She has tried to counter this criticism with visits to shrines of the struggle for democracy, and a recent apology for the atrocities committed under the regime.

	09	10	11	12	13
GDP (%p.a.)	0.2	6.3	3.6	2.5	3.0
Inflation (%p.a.)	2.6	2.9	4.0	2.2	2.5
Current A/c(US$ bill.)	42.7	28.2	27.0	28.0	18.0
Won/$(nom.)	1200	1150	1100	1100	1100

Taiwan

The government expects gross domestic product to grow 1.05% this year, slowing from a 4.0% rise in 2011. It was expected that quarterly gross domestic product growth would be 1.5%, up from the 0.2% contraction in the three months to June — the first quarterly contraction since 2009. Consumer confidence remained weak due to minimal salary growth and possible job losses. Real wages have stagnated in the last couple of years, largely because of the migration of manufacturing jobs to China and an oversupply of college graduates, while the "wealth effect" of a capital-gains tax on stock trading, set to take effect in January, is curbing the desire to spend.

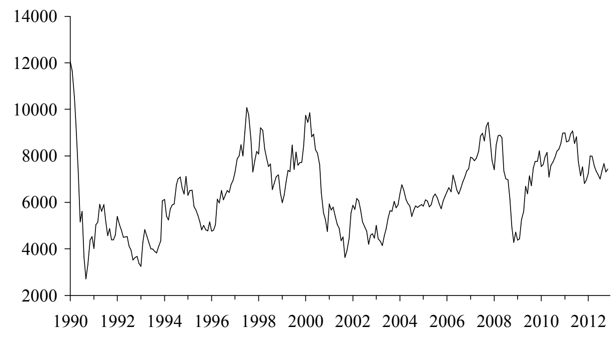
Inflation in Taiwan slowed moderately in October and is expected to ease further, though it is unlikely to prompt the central bank to cut its policy rate to boost the economy at its December meeting. Domestic interest rates are already very low and there is ample liquidity, so further cuts in interest rates won't significantly boost the export-reliant economy.

Consumer Price Index, a key gauge of inflation, rose 2.36% in October from a year earlier. The rise was slower than the preceding month's 2.96% increase, because of cheaper poultry products.

Exports were up 10.4% year on year in September, the strongest increase since late 2011. As the US economy revives and so does the Chinese economy, the Taiwan's economy would also grow higher than 2012 growth rate. Taiwan's export orders grew in October at their fastest pace in eight months, beating most estimates, but the government remains cautious that demand driven by the year-end holiday season can be sustained in the coming months. In the January–October period, Taiwan's exports fell 3.7% from a year earlier, while exports from South Korea, its main competitor, fell just 1.3% and while Chinese exports rose 7.8%.

It is more than likely that relationships between China and Taiwan will improve. China's new chief Xi Jinping spent 17 years in government in Fujian province — separated by only a short stretch of ocean from Taiwan — working overtime to boost business links. Taiwan's President Ma Ying-jeou favours stronger trade and investment ties with the mainland.

Taiwan: Weighted TAIEX Price Index



	09	10	11	12	13
GDP (%p.a.)	-1.9	10.8	4.0	1.0	2.0
Inflation (%p.a.)	0.0	1.3	1.2	2.0	1.3
Current A/c(US$ bill.)	16.0	16.0	18.0	20.0	22.0
NT$/$(nom.)	32.0	31.0	30.0	29.5	29.5

Brazil

The Finance Minister Guido Mantega expects the economy to grow at an annualized rate of 4% or above in the third quarter and is likely to maintain this pace through next year and into 2014. However, the expected recovery, which follows four quarters of marginal growth, would clock growth rate of 1.5% in 2012. As the government has launched a wave of stimulus measures to revive a flagging industrial sector, we expect around 3.7% growth rate next year.

The slowdown is the result of a contraction in Brazilian manufacturing as a strong currency and falling competitiveness have squeezed companies. However, a resilient consumer spending and low unemployment have kept the economy humming.

Non-performing loan rates have been heading higher again and are typically running at 6 or 7% at most big banks, compared with 1, 2 or 3% in most other big economies.

Just like India, the central bank governor has refused to give in to the government pressure to lower the interest rates. The central bank kept lending rates unchanged for the first time in more than a year after an easing cycle in which they fell to an all-time low of 7.25%.

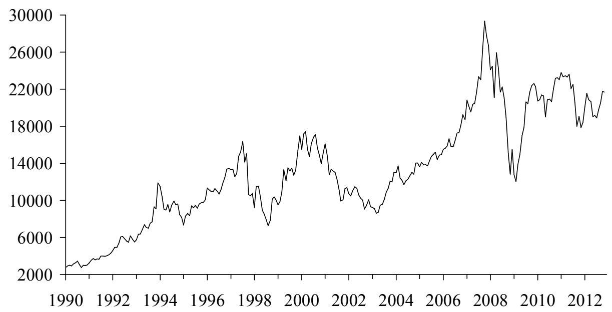
While the interest rate is still remarkably high in nominal terms compared with much of the rest of the world, it represents a low point for rates in a country that has historically struggled with runaway inflation.

Brazil operates a "dirty float", in which it allows the currency to move within a tight band that economists estimate at about BRL2-BRL2.10 to the dollar, a practice common in other emerging markets as well. The Brazilian real is testing the lower limit of BRL2.10 again and again and it sparks expectations that the central bank will intervene.

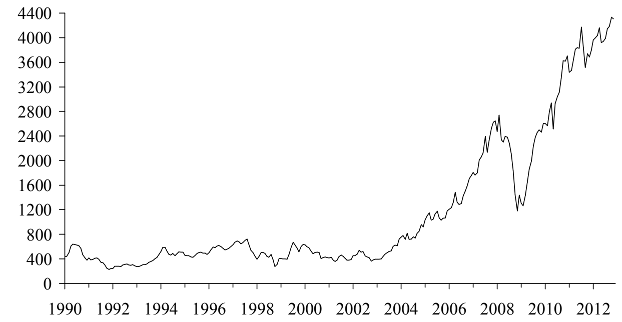
	09	**10**	**11**	**12**	**13**
GDP (%p.a.)	-0.2	7.5	2.7	1.5	3.7
Inflation (%p.a.)	4.1	5.9	6.5	5.5	5.5
Current A/c(US$ bill.)	-20.0	-47.3	-52.6	-60.0	-65.0
Real/$(nom.)	1.8	1.7	1.5	2.0	2.0

Other Emerging Markets

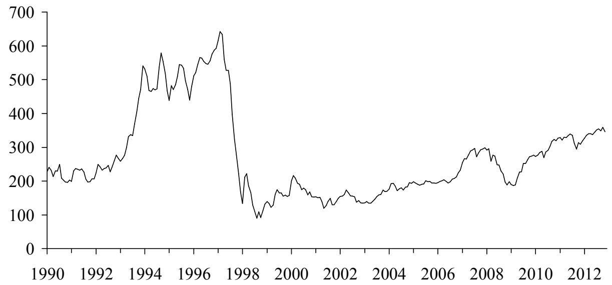
Hong Kong: FT-Actuaries



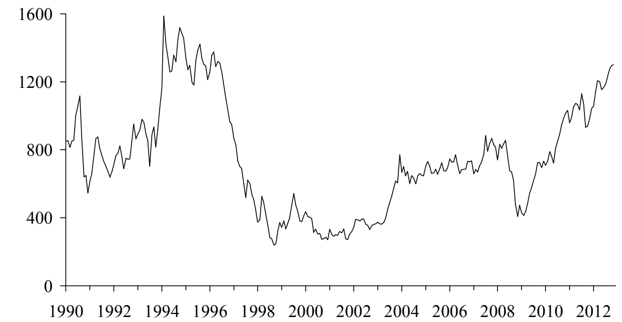
Indonesia: Jakarta Composite



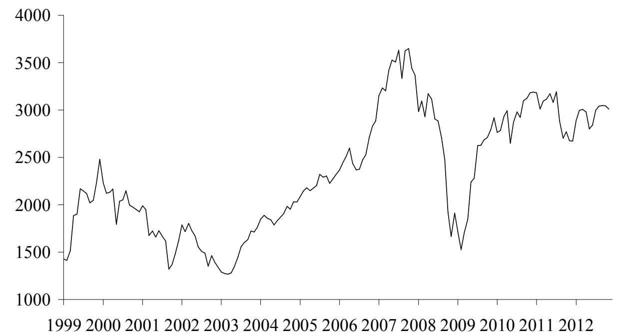
Malaysia: FT-Actuaries
(US$ Index)



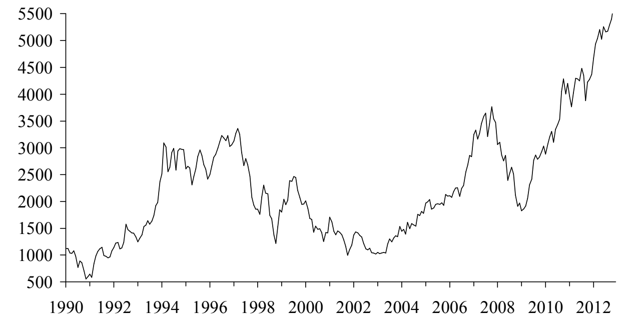
Thailand: Composite Index



Singapore: Straits Times Index

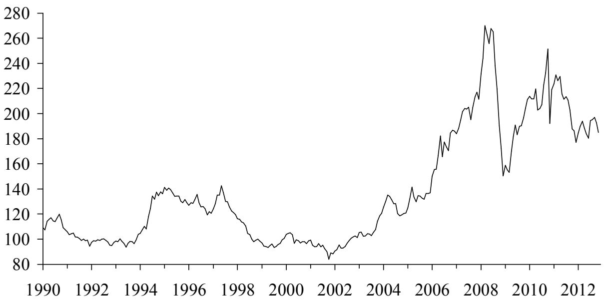


Philippines: Manila Composite

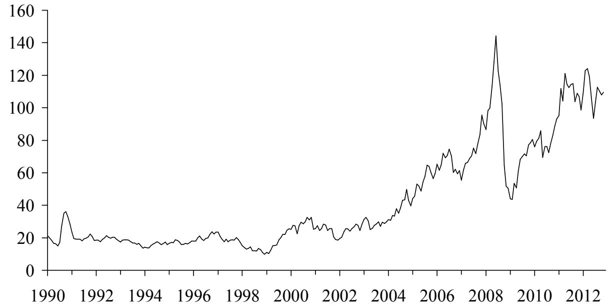


COMMODITY MARKETS

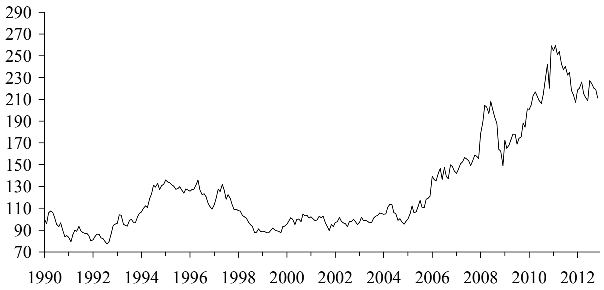
Commodity Price Index (Dollar)
(Economist, 2000=100)



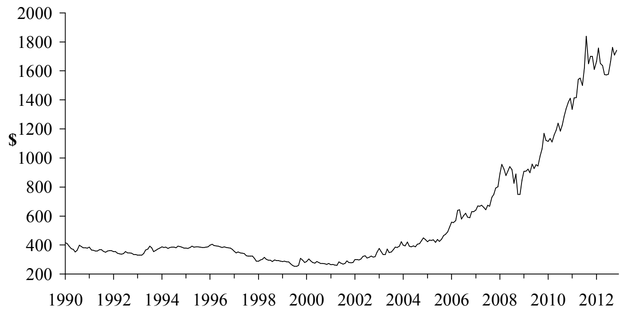
Oil Price: North Sea Brent (in Dollars)



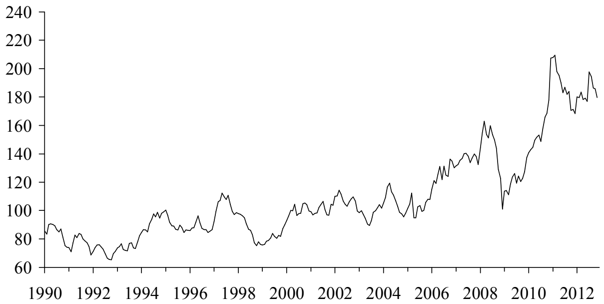
Commodity Price Index (Sterling)
(Economist, 2000=100)



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]
2009	1.3	2.8	1.1	80.6	89.3	-0.4	2.0	-0.2
2010	4.1	2.4	0.7	80.4	91.2	-3.8	4.8	-0.3
2011	3.9	2.0	0.9	79.9	92.4	-2.5	5.3	-0.4
2012	2.8	1.6	1.2	81.7	95.4	-1.6	3.5	-0.5
2013	2.3	2.4	1.4	81.5	95.7	-0.7	2.9	0.4
2014	2.0	2.6	2.1	81.0	95.6	0.2	2.7	0.6
2011:1	4.5	2.6	0.8	80.8	93.3	-2.9	5.3	0.2
2011:2	3.7	2.3	0.9	79.4	91.8	-2.8	5.2	-0.1
2011:3	3.7	1.6	0.9	79.2	91.5	-2.7	5.3	-0.7
2011:4	3.6	1.3	1.1	80.2	93.0	-1.5	5.3	-0.9
2012:1	2.6	1.1	1.1	81.1	94.3	-2.0	3.8	-1.1
2012:2	3.1	1.6	1.0	82.3	96.1	-1.9	3.6	-0.5
2012:3	2.9	1.8	1.4	81.9	95.7	-1.3	3.3	-0.3
2012:4	2.7	1.9	1.4	81.6	95.6	-1.0	3.2	-0.1
2013:1	2.4	2.1	1.4	81.5	95.5	-0.9	3.0	0.1
2013:2	2.3	2.4	1.4	81.3	95.4	-0.8	2.9	0.4
2013:3	2.2	2.6	1.4	81.7	96.0	-0.7	2.8	0.6
2013:4	2.1	2.6	1.6	81.4	95.9	-0.5	2.8	0.6

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)
2009	227.3	0.0	4.6	1.53	141.3
2010	232.4	2.3	4.6	1.50	138.8
2011	237.9	2.3	4.7	1.53	136.6
2012	243.2	2.1	4.6	1.53	135.6
2013	251.7	3.5	4.0	1.34	137.3
2014	262.8	4.4	3.7	1.24	140.6
2011:1	237.6	2.9	4.5	1.46	138.0
2011:2	237.2	2.6	4.6	1.50	136.8
2011:3	238.2	2.1	4.8	1.57	136.1
2011:4	238.8	1.6	4.8	1.60	135.4
2012:1	239.8	0.5	4.8	1.61	135.1
2012:2	242.1	2.1	4.7	1.56	135.4
2012:3	244.3	2.6	4.5	1.51	135.7
2012:4	246.7	3.3	4.4	1.46	136.3
2013:1	247.9	3.4	4.2	1.41	136.4
2013:2	250.6	3.5	4.1	1.36	137.0
2013:3	252.9	3.5	3.9	1.31	137.6
2013:4	255.6	3.6	3.8	1.26	138.3

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
2009	140.8	674466.5	405440.7	218144.6	178391.0	-33226.3	94283.5
2010	143.8	688577.5	406544.7	238231.9	181470.9	-39127.8	98542.3
2011	144.7	693085.7	400020.3	240745.2	180361.1	-30475.0	97565.8
2012	145.9	698805.6	401772.6	254854.4	182833.9	-32881.9	107764.8
2013	148.8	712538.5	407982.4	260043.9	187329.0	-33205.7	109610.1
2014	152.1	728596.4	417155.4	265696.3	191131.8	-33153.8	112235.9
2009/08	-4.3		-3.7	-13.4	0.9		-5.0
2010/09	2.1		0.3	9.2	1.7		4.6
2011/10	0.7		-1.6	1.1	-0.6		-0.9
2012/11	0.8		0.4	6.1	1.5		11.1
2013/12	2.0		1.5	2.1	2.5		1.7
2014/13	2.3		2.2	2.2	2.0		2.4
2011:1	144.5	172985.8	100710.9	55274.0	47260.2	-6814.0	23445.3
2011:2	144.4	172880.5	100098.9	58650.3	43772.3	-7894.5	21746.5
2011:3	145.2	173866.2	99417.2	64048.0	44431.3	-8082.7	25947.6
2011:4	144.8	173353.2	99793.3	62772.8	44897.4	-7683.8	26426.5
2012:1	144.3	172790.5	100021.7	62533.0	45654.3	-7956.4	27462.2
2012:2	144.0	172361.5	100252.8	61076.7	45598.3	-8306.1	26258.6
2012:3	147.8	176935.9	100386.7	66094.5	45669.6	-8309.4	26902.2
2012:4	147.6	176717.7	101111.5	65150.2	45911.6	-8310.0	27141.8
2013:1	148.0	177154.1	101483.0	62722.2	48586.9	-8307.4	27326.9
2013:2	148.5	177778.4	101479.0	66229.2	45693.1	-8302.0	27320.6
2013:3	149.1	178446.3	101989.4	65774.3	46384.9	-8301.7	27401.8
2013:4	149.6	179159.7	103031.0	65318.2	46664.1	-8294.5	27560.8

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)
2009	10.3	1247.8	128.3	32.4	-26.1
2010	8.3	1335.1	110.3	36.6	-48.6
2011	7.3	1394.9	120.1	43.0	-29.0
2012	7.4	1463.3	107.6	48.1	-31.6
2013	6.4	1524.1	97.1	51.6	-32.5
2014	3.6	1591.8	58.0	56.8	-32.3
2011:1	3.9	338.3	13.2	9.7	-6.6
2011:2	8.4	337.4	28.4	10.0	-3.4
2011:3	5.7	349.7	19.8	10.4	-10.5
2011:4	9.3	352.3	32.9	11.0	-8.5
2012:1	5.6	355.5	39.0	11.5	-7.0
2012:2	7.5	355.2	26.5	11.6	-3.8
2012:3	6.8	367.1	24.9	12.0	-11.0
2012:4	7.0	369.2	25.7	12.2	-9.8
2013:1	8.2	371.8	30.5	12.3	-8.0
2013:2	6.2	375.5	23.4	12.5	-3.7
2013:3	6.0	378.9	22.6	12.7	-11.0
2013:4	6.1	382.5	23.1	13.0	-9.8

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2008	2009	2010	2011	2012	2013
U.S.A.	0.0	–2.6	2.6	1.7	2.5	2.6
U.K.	–1.1	–4.3	2.1	0.7	0.8	2.0
Japan	–1.2	–6.3	4.3	–0.7	2.1	1.6
Germany	1.0	–4.7	3.6	3.0	1.1	2.0
France	0.1	–2.5	1.5	1.7	1.0	1.2
Italy	–1.3	–5.1	0.9	0.5	0.1	0.3

Real Short-Term Interest Rates

	2008	2009	2010	2011	2012	2013
U.S.A.	1.8	–1.6	–1.8	–1.7	–1.5	–1.3
U.K.	4.2	–0.4	–3.8	–2.5	–1.6	–0.7
Japan	1.8	1.1	0.5	0.4	0.4	0.4
Germany	3.5	–0.4	–1.3	–0.3	0.8	0.5
France	3.8	–0.8	–1.4	–0.3	0.9	0.5
Italy	3.1	–0.8	–1.4	–0.3	–0.3	0.0

Real Long-Term Interest Rates

	2008	2009	2010	2011	2012	2013
U.S.A.	2.2	1.3	1.1	1.2	2.0	2.0
U.K.	1.4	–0.2	–0.3	–0.4	–0.5	0.4
Japan	2.0	1.4	1.1	1.1	1.3	1.5
Germany	3.0	2.3	1.9	1.8	2.0	2.0
France	3.0	2.2	1.9	1.8	2.0	2.0
Italy	2.8	2.2	1.9	1.8	2.0	2.2

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

	2008	2009	2010	2011	2012	2013
U.S.A.	80.1	88.7	81.7	81.8	82.0	82.1
U.K.	87.6	77.5	77.3	76.8	79.6	78.4
Japan	87.9	89.0	80.2	79.8	79.7	80.0
Germany	105.1	105.8	99.3	99.0	99.1	99.0
France	106.4	104.3	101.7	102.0	102.0	102.1
Italy	106.6	105.4	100.5	100.8	101.0	101.1

[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

	2008	2009	2010	2011	2012	2013
U.S.A.	3.8	–0.3	1.8	3.1	2.0	2.0
U.K.	3.3	1.3	4.1	3.9	2.8	2.3
Japan	1.4	–1.4	–1.0	–0.3	–0.2	0.0
Germany	2.6	0.4	1.1	2.3	1.8	1.7
France	2.8	0.1	1.5	2.1	1.6	1.6
Italy	3.4	0.8	1.5	2.8	2.7	2.8

Nominal Short-Term Interest Rates

	2008	2009	2010	2011	2012	2013
U.S.A.	1.5	0.2	0.1	0.3	0.5	0.7
U.K.	5.5	1.1	0.7	0.9	1.2	1.4
Japan	0.4	0.1	0.1	0.4	0.4	0.4
Germany	3.9	0.7	0.4	1.5	2.5	2.5
France	3.9	0.7	0.4	1.5	2.5	2.5
Italy	3.9	0.7	0.4	1.5	2.5	2.5

Nominal Long-Term Interest Rates

	2008	2009	2010	2011	2012	2013
U.S.A.	3.7	3.2	3.1	3.2	4.0	4.0
U.K.	4.3	2.8	2.4	2.0	1.6	2.4
Japan	1.5	1.3	1.1	1.2	1.5	1.5
Germany	4.4	4.0	3.8	3.8	4.0	4.0
France	4.4	4.0	3.8	3.8	4.0	4.0
Italy	4.4	4.0	3.8	3.8	4.0	4.0

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

	2008	2009	2010	2011	2012	2013
U.S.A.[1]	86.07	85.98	83.73	78.08	80.20	80.50
U.K.	1.85	1.57	1.55	1.61	1.58	1.58
Japan	103.40	93.54	87.48	79.36	81.00	81.00
Eurozone	0.68	0.72	0.75	0.72	0.78	0.79

[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