LIVERPOOL INVESTMENT LETTER

June 2013







LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

Editorial and Research Direction: Patrick Minford[†].

Senior Research Associates: Kent Matthews[†], Anupam Rastogi, Peter Stoney, Bruce Webb[†], John Wilmot.

Research Associates: Vo Phuong Mai Le[†], David Meenagh[†], Francesco Perugini.

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

ISSN 0951-9262

Disclaimer

The Liverpool Investment Letter is a publication intended to provide information to investors and investment managers acting on their own initiative. No responsibility can be taken by Liverpool Macroeconomic Research Limited for decisions made by our readers. Whilst every attempt is made to ensure the accuracy of the contents, no guarantee of such accuracy is given.

[†]Cardiff Business School

LIVERPOOL INVESTMENT LETTER

June 2013

CONTENTS

	Page
The Arrival of Mark Carney With a new Governor arriving at the Bank, there is a chance at last to rethink the mess that monetary policy is in — with a mass of dangerous QE side-by-side with blockage of the credit channel. Sorting this out requires deregulating the banks again and making monetary policy be the means to control 'excess credit', while also reining back QE and normalising interest rates. Meanwhile the IMF's confusing calls for fiscal 'support for growth' need to be resolutely ignored — infrastructure spending is going ahead anyway as fast as permitted by planning and politics.	3
Focus on Japan	6
Market Developments Summary and Portfolio Recommendations	7
Indicators and Market Analysis Foreign Exchange Government Bond Markets Major Equity Markets Emerging Equity Markets Commodity Markets	9 10 11 12 17
UK Forecast Detail World Forecast Detail	18 20

THE ARRIVAL OF MARK CARNEY

Mark Carney arrives as the new Governor of the Bank at a time when policy is in disarray but at the same time all the levers of policy are in the Bank's hands. He has a good chance to improve matters.

What is the problem? The Bank is pursuing a monetary policy that is at its loosest for all time. Via Quantitative Easing (QE) the monetary base has expanded to nearly eight times its 2007 value. Virtually all that expansion is sitting in bank reserves, as the extra money printed was deposited and not lent; so the banking system has created no additional money, and the total ('broad') money supply has barely grown. Meanwhile, interest rates on government three month bonds are held down close to the Bank Rate of 0.5%, an all-time low that has prevailed for four years; on longer maturities the government can borrow at rates below inflation. Yet, rates on credit to small businesses remain, as far as we can measure them, stratospheric; and SME lending continues to contract sharply. The economy is growing weakly at best. Equity prices have soared as investors have chased yield elsewhere than in government bonds; yet large businesses refuse to invest, preferring to wait for recovery. As for inflation it is now sagging back towards 2%, after a long period of being driven up by soaring commodity prices, now mercifully falling back; the lack of credit and money growth has held domestic inflation down, so the Bank's credibility has not been tested.

In a nutshell, this highly and indeed dangerously expansionary monetary policy has had little or no effect on credit, real activity, the broad money supply or inflation but has driven down yields on government bonds and other assets, damaging savers at the expense of government and large borrowers. Why?

What we have been discovering the hard way is that money does not course equally vigorously through all channels, especially when regulators insert large barriers between them via their controls. Small businesses always find it hard to get credit and face a rate much higher than the Bank Rate, which varies with general business conditions in a way that we do not observe very well; arrangement and other fees come and go, as do eligibility criteria and collateral requirements. Now in addition to the usual hurdles they would face because of poor business conditions and the banks' internal difficulties, these businesses face a new and massive regulatory obstruction: as they are 'high risk' they push up a bank's risk-weighted assets and so force the bank to get expensive extra capital to satisfy the new capital ratios. The banks have reacted by refusing to expand their balance sheets by lending to these expensive firms. Instead they have clung onto their 'low risk' large customers and of course official paper, most especially reserves with the Bank. The credit channel to the

Table 1: Summary of Forecast

	2010	2011	2012	2013	2014	2015	2016
GDP Growth ¹	1.8	0.9	0.1	0.8	2.0	2.4	2.6
Inflation (CPI 3.7	4.7	2.8	2.8	2.6	2.2	2.0
RP	PIX 4.8	5.3	3.3	3.3	3.1	2.8	2.7
Unemployment (Mill							
Ann. Av	2 g. ² 1.5	1.5	1.6	1.5	1.4	1.3	1.2
4th (Qtr. 1.5	1.6	1.6	1.5	1.3	1.2	1.1
Exchange Rate ³	80.4	80.0	83.0	83.5	82.7	82.1	81.5
3 Month Interest Rate	0.7	0.9	0.9	0.9	1.7	2.1	2.2
5 Year Interest Rate	2.4	2.0	0.9	1.3	1.8	2.1	2.4
Current Balance (£bn	-37.3	-20.4	-51.9	-52.2	-52.8	-53.0	-52.0
PSBR (£bn)	115.1	94.2	95.4	98.2	84.7	72.2	60.5

¹Expenditure estimate at factor cost

dynamic part of the economy, the 50% represented by SMEs, has been blocked by regulation. So all the money printed has gone into the other channels, causing a lake of liquidity to form around governments and large corporations. The economy has flatlined as these monopolistic elements bask in the luxury of doing nothing much except 'cuts'.

Mr. Carney should change this. As the chief regulator he should cut back these capital requirements, or at least postpone them sine die. As the banks come back to life, he can then junk the clumsy bureaucracy of the Funding for Lending Schemes and the Mortgage Subsidy for first time buyers. He will then need to tighten monetary policy as bank credit expands and the recovery strengthens. All those bank reserves created by QE are like dry firewood waiting for a spark; not merely must it be stopped as agreed by majority in the latest MPC minutes but it must also be removed fast. Interest rates must rise to keep credit and money growth under control. There will be difficulties in removing the QE, as the Bank's bond holdings will fall sharply in value with rising interest rates; also politicians will want to stop the Bank 'spoiling the recovery'. But the Treasury will have to absorb the loss on the Bank's assets (after all the Bank's loss is its gain) and the politicians must be ignored.

For the longer term people will worry that weakening bank regulation will lead to a future crisis. But regulation works against the grain of the free market economy; it would be better to control excess credit expansion by monetary policy in future. The inflation target should stay at 2% because as a society we decided to eliminate the deadly virus of unchecked and uncertain inflation. But the monetary control mechanism could supplement the target with a money supply target which would proxy the otherwise unobservable cost of credit to SMEs. The setting of Bank Rate and the printing of money could be jointly orientated towards the control of monetary conditions. If

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

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

Mr. Carney can sort these things out, he will have more than earned his unprecedented Gubernatorial package.

What should be done this month? QE should start to be reversed and bank regulation eased back sharply. One interim solution would be make any capital requirement smaller and also absolute — that is, related not to risky assets but merely to the overall size of the bank balance sheet. Then 'excess risk' when it eventually becomes a threat in some years' time would be handled by making monetary conditions respond to the money supply. Meanwhile the marginal cost penalty on bank lending to SMEs would be removed. Pending all these changes we need the FLS and the Mortgage subsidy scheme to be expanded as necessary to offset the damaging effects of regulation — much as the government is now being forced to do; these actions will continue to bear down on the costs of credit to smaller borrowers. Interest rates on government paper should rise now by 0.5%, to begin the normalisation of the official paper market. Besides beginning to remove the distortion in the savings market, it would also revive the interbank market, whose operations are suppressed by the lake of OE reserves and the low rate on borrowing from the Bank. It will also take the froth off the equity market. Most importantly it will start to reduce the dangers of inflation as the economy re-enters growth.

Keynesians and Plan A

It has become a commonplace critique of the Coalition Government's 'Plan A' to argue that it should deviate from the deficit reduction plans to stimulate growth via additional infrastructure spending. Thus most recently we have a paper from the TUC/NIESR urging a 'U-turn' in Plan A towards an infrastructure boost.

The first point to make about all this is that it is not really a critique at all. Infrastructure spending is generally not controlled in such plans because it is 'below the line', regarded as justified by the long-term needs of the economy and to a high degree self-financing because it permits additional output which will generate revenue. The main constraint on this spending is the overall planning and approval process. Thus the plans for Heathrow or other airport expansion are not held up by Plan A but by apparently endless dispute by the interested parties.

In the same spirit, we may notice that presumably no one would argue for an open-ended commitment to spend on any infrastructure project that might be suggested by for example UK regions. An object lesson in why this would be dangerous has recently been supplied by the Chinese government. In response to the 2008 crisis it gave orders to the state-owned banks to lend aggressively for any infrastructure investment plans produced by state firms and regional governments. This has produced substantial excess capacity, including a lot of unused housing stock; associated with it are a large stock of loans that may prove

unrepayable. Policies to generate large unneeded infrastructure spending are potentially destabilising to the economy for this reason.

I take it that none of the critics want this sort of policy. John van Reenen has recently (on the blog Conversation) stressed the need for the LSE growth agenda with its supply-side reforms; this is really not controversial among economists. The problem is, as always with the supply side, in the organisation of the political process to deliver it — invariably difficult and while I would join in criticising the Coalition on these things too, I have to recognise that this is a Coalition and agreeing on anything politically is a challenge.

However, many critics (not Prof van Reenen, to be sure, but nowadays probably including Olivier Blanchard, IMF chief economist) would really like it if public spending in general was increased on useful things or taxes cut when there is recession and vice versa — what the IMF euphemistically calls 'support for growth'. It is widely argued by such people that monetary policy cannot be effective at 'the zero bound' (i.e. where Bank Rate is virtually zero) because rates cannot be cut any further.

This brings us to a second general objection to this line of argument. Fiscal policy as an active tool of demand management faces two main difficulties. First, that it is slow to act because of the lags in both getting the policy agreed and then in implementing it. Second and more seriously it cuts across medium term needs: we undertake the spending because it is required for recognised durable reasons and we levy the taxes as part of a framework within which businesses and people can plan. If we vary from this programme, we both undercut these needs and we also make it hard to adhere to the long-term plan. For example if spending is increased it is hard for political reasons to reverse; similarly if taxes are cut. When the time comes to reverse the action people object and politicians come under pressure. In the context of Plan A when the deficit at 7% of GDP needs to be brought back to 1% or so, to stop debt rising beyond 80-90% as a fraction of GDP and to bring it back down towards a safe ratio of around 60%, it is all too easy for no progress to be made at all if cuts to programmes are not made systematically according to a steady programme. Imagine if they were put off now, only to be 'implemented' suddenly 'when the recession was over'; one can easily see why any Treasury would worry that they would never take place at all.

These arguments against fiscal policy as a stabiliser are not new but let us address the 'zero bound' issue which underpins the renewed interest in fiscal feedback. Is it true that monetary policy cannot be used today because we are at the zero bound? It does not seem so. What we now know is that while indeed official interest rates paid on government paper are exceedingly low, interest rates and associated charges on private credit are as high as ever. In

fact the complaint of small businesses is that they can barely get credit at all. Credit to SMEs continues to fall, in clear support of their complaint. Macro models are now giving increasing attention to the banking sector and the 'credit frictions' in the economy. The central banks of the western world are using direct open market operations, renamed 'Quantitative Easing', once again; and they are also targeting the money supply and bank credit with this instrument. In principle increasing the supply of bank reserves ought to have an effect in increasing bank credit and deposits via the usual 'money multiplier' (the ratio of total money supply to currency plus bank reserves).

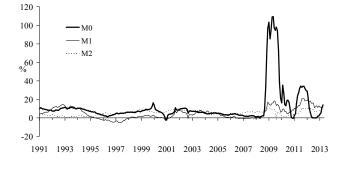
It is true however that QE has been a huge disappointment in this respect: as reserves have been injected, the money multiplier has collapsed. But the reason seems to be, as explained above, that regulation of 'risky credit' by the banks has been greatly intensified at just the time when QE has been deployed — so that the one has neutralised the other and the banks have not expanded credit. The left hand and the right hand of monetary government have clashed. The result has been in the UK a variety of new schemes to

resolve the clash — so far Funding for Lending Schemes 1 and 2, and now also the mortgage guarantee scheme.

These attempts to loosen regulation by the back door are inferior to rethinking bank regulation and monetary policy overall. We would emphasise a return to more traditional monetary targeting as part of the inflation target framework: controlling 'credit excess' via monetary policy and variation in open market operations. Then regulation could be returned to a more general aim of preventing outright bad banking practice from an essentially microeconomic viewpoint. If today banks were not so discouraged by marginal capital-raising needs from lending to SMEs, we would see QE having its intended effect.

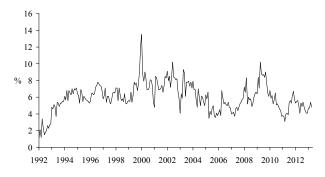
It remains the case, if we could remove these distortions, that monetary policy is the fast and effective way to combat the business cycle. We should not undermine the process of getting our public accounts back into order by poorly-founded demands for fiscal feedback.

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



Eurozone M3 Growth

UK: Notes and Coins in Circulation Growth



14 12 10 8 %6 4 2

2005

2007

2009

2011

2013

2001

2003

15 12 9 % 6 3 0 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012

Japan: Growth of M2+CD's

FOCUS ON JAPAN

Francesco Perugini

Abe scores its first success

Latest official GDP data show the economy grew at a faster than expected pace, 0.9% in the January–March period from the previous quarter, suggesting that Japanese Prime Minister Shinzo Abe's inflation targeting policies, known now as "Abenomics", are yielding at least short-term results in the world's third-largest economy. "The economic policies by the Abe Cabinet kicked off a recovery that is on a different level", economy minister Akira Amari said after the release of the data.

Both domestic final demand and net exports contributed to the surge in GDP. Not surprisingly, domestic demand was boosted by solid growth in consumption and residential investment, while capital investment spending was disappointingly weak. Indeed, a consumption-led recovery, which characterizes the current economic environment, is unusual in Japan. In the past, recovery has been driven by an increase in exports, which then led to a rise in investment spending, and eventually consumption followed with a lag.

Looked at in more detail, consumer spending — the biggest growth driver — gained across the board but was particularly robust in the areas of recreation, cars and dining out. Sales at department stores show a 3.9% rise in March, marking the third straight month of increase while a government survey shows that consumer sentiment rose to its highest in nearly six years in April. The strength of consumption was driven by an soft increase in worker compensation — which rose 0.1% over the previous quarter, after having declined in the four previous quarters — and a fall in the saving rate. The government claims that the boost in consumption was a by-product of its policy steps which improved sentiment via the sharp rise in share prices.

Exports also posted better-than-expected gains during the quarter, mainly thanks to car exports to the US. The increase in exports, the first in four quarters, was an impressive 3.8%, especially as international trade remained subdued in Asia.

On the other hand, the data showed that Abe's policies have yet to have a significant impact on corporate spending. Capital investment spending, which accounts for about 15% of GDP, fell 0.7% in the January–March quarter from the previous period, the fifth straight quarter of decline. Analysts say the fall is not all that worrying because investment is expected to pick up as industrial output improves on the back of overseas recovery. Also, public works growth slowed to 0.8% from 2.8% in Q4 last year, reflecting slowing growth of reconstruction works. However, a strong recovery is expected in the months

ahead, as the fiscal stimulus package announced in January will be implemented mainly in the second quarter and should push up infrastructure spending.

Overall, the GDP numbers are the first major report card for Abe's economic policy, after he took power in December pledging to get Japan out of 15 years of deflation. Since then, his government has implemented a \frac{\pma}{13.1} trillion spending package, and appointed Kuroda as the new BOJ governor who in turn led the central bank to embark on massive purchases of government bonds to achieve 2% inflation in two years.

Expectations for stronger economic growth have already pushed Japanese stock prices to their highest since late 2007 and the yen to around ¥100 against the US dollar for the first time since 2009. Economists at Daiwa Securities expect profit at the top 200 Japanese companies to jump 75% in the fiscal year that started in April to ¥16.09 trillion if the yen remains near that level. "Abenomics put Japan back to the centre of the world", said Nissan Motor Chief Executive Carlos Ghosn. "Japan which was a little bit forgotten for years as the third-largest economy is back centre stage so it's good". And economists are expecting this quarter's strong growth will likely have staying power as the effects of the BOJ's easing and the ¥13.1 trillion spending program kick in. "We expect that Japan's GDP will log another 3%-level of growth in the coming April-June quarter, which is a quite amazing figure for the Japanese economy", said Norio Miyagawa, a senior economist at Mizuho Securities.

It is, however, too early to call it a turning point for an economy that has seen numerous false starts over the past two decades. Many analysts say that momentum will only prove sustainable if Abe can deliver on what he has called the "third arrow" of his growth strategy, the yet-to-be-unveiled package of deregulation and overhaul measures aimed at fixing the country's underlying structural problems. "We can't be so hasty to believe", cautioned Hideo Kumano, chief economist at Dai-ichi Life Research Institute, saying there needed to be more signs of innovation and more investments by companies to help them raise their growth potential.

Fiscal and monetary expansions such as those planned by the Japanese authorities cannot be sustained for long. Abe and his government should act swiftly to map out and implement a growth strategy focused on bold deregulation and the promotion of free trade. It is with this that the corporate and consumer sectors of the economy can be given true life. If Japan is to emerge, finally, from its prolonged period deflationary malaise, it needs to derive much of its energy for renewed economic growth from the private sector.

MARKET DEVELOPMENTS

T he equity and bond markets are flooded with liquidity by QE. Both will fall back as QE is withdrawn as it will increasingly be. However as credit is revived and growth returns — which the data is more and more

suggesting — equities will be resilient and bonds look dangerous to hold. So our commitment to equities remains the only real option.

Table 1: Market Developments

		arket evels	Prediction for May/Jun 2014		
	Apr 23	May 28	Previous (
			Letter Vi	ew	
Share Indices					
UK (FT 100)	6432	6762	8741	9122	
US (S&P 500)	1579	1660	2024	2112	
Germany (DAX 30)	7759	8481	10669	11576	
Japan (Tokyo New)	1164	1168	1579	1596	
Bond Yields (governme	ent long-term	1)			
UK	1.71	1.95	1.80	1.80	
US	1.70	2.14	2.10	2.10	
Germany	1.24	1.50	1.50	1.50	
Japan	0.60	0.91	0.70	0.70	
UK Index Linked	-0.48	-0.36	-0.20	-0.20	
Exchange Rates					
UK (\$ per £)	1.53	1.50	1.56	1.56	
UK (trade weighted)	80.3	79.9	82.3	82.3	
US (trade weighted)	86.8	88.4	85.5	85.5	
Euro per \$	0.77	0.78	0.79	0.79	
Euro per £	1.17	1.17	1.23	1.23	
Japan (Yen per \$)	99.4	102.0	98.0	98.0	
Short Term Interest Ra	ates (3-month	deposits)			
UK	0.61	0.57	1.70	1.70	
US	0.41	0.33	0.70	0.70	
Euro	0.15	0.15	0.50	0.50	
Japan	0.18	0.09	0.70	0.70	

Table 2: Prospective Yields

Equities: Contribution to £ yield of:							
•	Dividend	Real	Inflation	Changing	Currenc	y Total	
	Yield	Growth		Dividend Yield			
UK	3.30	1.4	2.5	31.00		38.20	
US	1.90	2.2	2.0	23.00	-3.72	25.38	
Germany	3.00	0.8	1.7	34.00	-5.32	34.18	
Japan	1.70	1.6	0.0	35.00	0.34	38.64	
UK indexed ²	-0.36		2.5	-5.00		-2.86	
Hong Kong ³	2.40	7.5	2.0	15.00	-3.72	23.18	
Malaysia	2.80	4.5	2.0	48.00	-3.72	53.58	
Singapore	3.30	2.9	2.0	23.00	-3.72	27.48	
India	1.40	6.5	2.0	21.00	-3.72	27.18	
Korea	1.10	3.5	2.0	-2.00	-3.72	0.88	
Indonesia	2.10	6.4	2.0	48.00	-3.72	54.78	
Taiwan	3.20	3.2	2.0	37.00	-3.72	41.68	
Thailand	2.80	4.2	2.0	40.00	-3.72	45.28	
Bonds: Cont							
	Redemp		Changing	Currenc	y	Total	
	Yield	1	Nominal Rates				
UK	1.9	5	1.50			3.45	
US	2.1	4	0.40	-3.72		-1.18	
Germany	1.5	0	0.00	-5.32		-3.82	
Japan	0.9	1	2.10	0.34		3.35	
Deposits: Co	ntribution	to £ yiel	d of:				
	Depos		Currency	Total			
1 117	Yield	-		0.57			
UK	0.5		2.72	0.57			
US	0.3		-3.72 5.22	-3.39			
Euro	0.1		-5.32	-5.17			
Japan	0.0	9	0.34	0.43			

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(%)

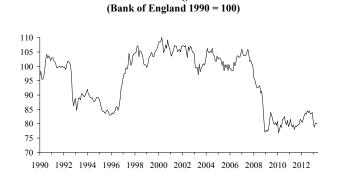
		g Based estor	Dollar Bas	Dollar Based Investor		Euro Based Investor	
	May Letter	Current View	May Letter	Current View	May Letter	Current View	
UK Deposits (Cash)	5	5	5	5	1	1	
US Deposits	-	-	-	-	-	-	
Euro Deposits	-	-	-	-	-	-	
Japanese Deposits	-	-	-	-	-	-	
UK Bonds	-	-	-	-	-	-	
US Bonds	-	-	-	-	-	-	
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) 125 105 85 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012







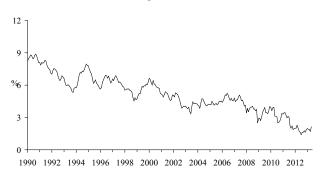
UK: Trade-Weighted Index



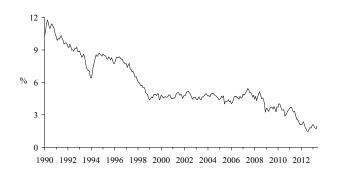
Japan: Yen Per U.S. Dollar

GOVERNMENT BOND MARKETS

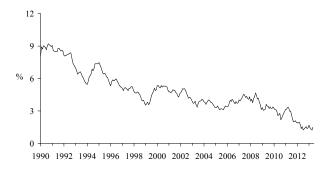
U.S.: Yield on Long-Term Government Bonds



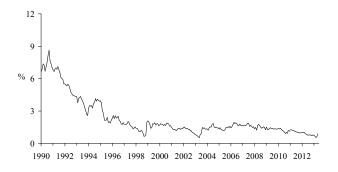
U.K.: Yield on Long-Term Government Bonds



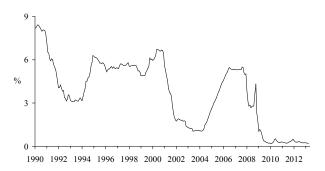
Germany: Yield on Public Authority Bonds



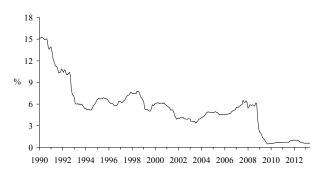
Japan: Yield on Long-Term Government Bonds



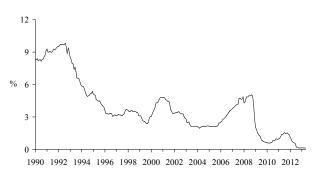
U.S.: 3-Month Certificate of Deposit



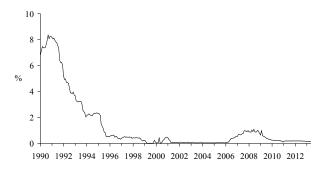
U.K.: 3-Month Interbank Rate



Germany: 3-Month Interbank Deposit Rate

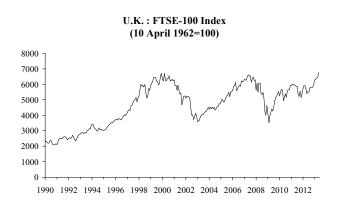


Japan: 3 Month Money Market Rate



MAJOR EQUITY MARKETS









EMERGING MARKETS

Anupam Rastogi

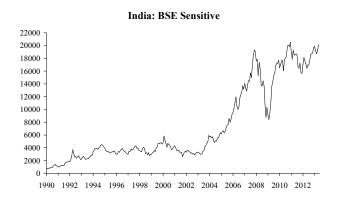
The International Monetary Fund has joined the World Bank in predicting a turnaround in India's economy, forecasting it to expand by 5.8% to 6.1% in the current fiscal year and 6.7% in the fiscal year 2015 which ends in March 2015. The government, of course, hopes to achieve a higher than 6% growth rate. But Standard & Poor's and other rating agencies are not that optimistic: according to S&P India's sovereign rating faces a one-in-three chance of being downgraded to junk status over the next year. S&P retained its "negative" outlook on India's BBB— (the lowest investment-grade) long-term sovereign debt rating. It is reported that top officials from the finance ministry met executives from S&P as well as other global ratings firms Fitch and Moody's to push for an upgrade.

The reason for such an obdurate stand taken by the rating agencies is that, notwithstanding a forthcoming good monsoon, easing of commodity prices and growing domestic demand, policy-making is stuck in a quagmire as the present government is not able to decide whether it wants to follow an investor friendly regime or all-out distributive policies to ensure its survival in the next general elections, to be held prior to May 2014. Moreover, rating agencies suspect that with elections on the cards, the government will dole out sops that will make the deficits wider. Besides, the election spending will also take the government's focus away from reform measures. Therefore, investors remain reluctant to spend anew where regulations are in a flux and politics is unpredictable.

Opposition parties disrupted most of the proceedings in the past few sessions of Parliament over issues such as corruption. This has derailed the government's plans to bring in legislation to ease foreign-investment rules in sectors like pensions and insurance, and to amend a more-than-a-century-old law on acquiring land for industrial and infrastructure projects.

Consumer food inflation eased to 10.61% in April from 12.42% in March and the government announced better-than-expected WPI inflation data at a near three-and-a-half year low of 4.89%. This means that inflation is now within the comfort zone of the Reserve Bank of India (RBI). Inflation, so far, had been a big headache for the central bank, as a result of which it was not comfortable cutting interest rates. In its meeting on June 17, the Reserve Bank of India is expected to cut both its lending rate and the cash reserve ratio by 25 basis points.

India's trade data showed that total imports in April rose 10.9% from a year earlier to \$41.95 billion, eclipsing a



small 1.6% increase in merchandise exports to \$24.16 billion.

India's trade deficit in April widened more than 70% from March. The large increase is worrisome for the country's current-account deficit, which widened to a record high in the last quarter of 2012. But foreign investors became optimistic this year that the worst of the slowdown is over, pouring US\$18.8 billion into Indian stocks and bonds, so far-up by around 50% year on year, which in turn helped support the currency. So far, India has managed to attract enough foreign investments in its capital markets to make up for the shortfall in its current account. The rupee is sliding against the US dollar. The dollar was at 56.15 rupees in the last week of May.

	10-11	11-12	12-13	13-14	14-15
GDP (%p.a.)	7.5	6.2	5.0	6.5	6.5
WPI (%p.a.)	9.0	7.5	7.0	6.0	6.0
Current A/c(US\$ bill.)	-31.0	-40.0	-80.0	-100.0	-60.0
Rs./\$(nom.)	49.0	49.5	54.5	55.5	55.0

China

The International Monetary Fund has lowered expectations for growth in the Chinese economy. The fund lowered its growth forecast for the Chinese economy this year to 7.75% from an earlier forecast of 8%, which is still higher than the official 7.5% target. Sluggishness in the global economy is cited as the cause for the midway correction in this year's forecast. The fund has cautioned China about its rising debt levels and the surge in credit in the economy, and indirectly said that the credit goes into inefficient uses. The IMF has estimated that China's fiscal deficit for last year totalled 10% of GDP, compared with central government estimates of about 2% of GDP.

China's manufacturing sector showed further signs of contraction in May, as a gauge of factory activity slipped to its lowest level in seven months. The preliminary HSBC China Manufacturing Purchasing Managers' Index fell to 49.6 in May, compared with a final reading of 50.4 in April. Whether this will lead to a more expansionary fiscal policy, cutting taxes and spending more from June or July, remains an unanswered question. China's political meeting, where big decisions about economic policy are taken, is supposed to be held in the autumn.

The share of net exports at 2.7%, down from 8.8% in 2007, reflects the transition from reliance on foreign demand to domestic investment to drive China's growth. Therefore, the 14.7% growth in exports in April, after a rise of 10% in March, is questioned by many economists. It is widely believed that the gains are due to over-invoicing by exporters claiming higher payments than they actually receive from their customers. China had a slightly bigger than expected surplus of \$18.16 billion in April, topping estimates of a \$15.55 billion surplus — after a surprising \$884 million deficit in March.

The Chinese yuan's 15-year high against the Japanese yen is affecting the world's number-two economy. This has changed the standings for their competing export sectors, where China has long outdone Japan. It is not unusual for consumer goods and discretionary consumer goods of Japanese origin being sold at 20% or more discount in the developing world.

To continue to push the yuan deeper into global capital markets, China's first-ever privately managed fund will invest in offshore renminbi assets. Highland Capital Management (HCM), a company backed by the Yunnan provincial government, is seeking to raise up to Rmb15 billion (\$2.4 billion) in its first fund and will focus on investments in Southeast Asia. Until now Chinese investments are almost always made in dollars or other foreign currencies, with the HCM fund investments will be denominated in renminbi, a mandate that regulators hope will foster more widespread international use of the Chinese currency. The HCM will be the second offshore renminbi investment fund in China, following last year's establishment of Sailing Capital International, which is managed by the Shanghai government.

	10	11	12	13	14
GDP (%p.a.)	10.3	9.2	7.8	8.0	7.5
Inflation (%p.a.)	5.9	4.3	2.6	3.5	3.0
Trade Balance(US\$ bill.)	183	210	214	220	220
Rmb/\$(nom.)	6.6	6.3	6.3	6.2	6.1



South Korea

The impact of Japanese economic policy is being felt by South Korea, and it is trying hard to cope with slowing growth and the sharp rise of the yen against the won, making Korean goods more expensive than before. The economy is likely to grow only 2% in 2013, and marginally better in 2014. Parliament approved a supplementary government budget of 17.3 trillion won (\$15.85 billion), aimed at creating jobs and supporting smaller businesses. But most of that will go to cover revenue shortfalls and limit new spending to around 5.3 trillion won only.

The country's lower inflation allows the central bank to join the government in its stimulus efforts. The Bank of Korea unexpectedly cut its benchmark interest rate for the first time in seven months, joining other central banks in easing monetary policy to counter currency appreciation and support growth. The bank trimmed its base rate by 0.25 percentage point to 2.50%. South Korea exported goods and services worth \$46.3 billion in April, lower by 2.4% than March's figure.

South Korean President Park Geun-hye has sought to shore up support from the US for her country at a time of increased tensions in the region. She acknowledged a strong alliance with the U.S. and other countries which helped South Korea in continuing to grow despite threats and provocations from North Korea. She said she wants to build trust with her neighbours to the north, and said that the international community should create a park in the Demilitarized Zone that separates North Korea and South Korea.

	10	11	12	13	14
GDP (%p.a.)	6.3	3.6	2.0	2.0	2.8
Inflation (%p.a.)	2.9	4.0	2.2	2.1	2.6
Current A/c(US\$ bill.)	28.2	27.0	44.0	28.0	28.0
Won/\$(nom.)	1150	1100	1100	1100	1050

Taiwan

Taiwan's economy contracted 0.69% from the previous three months, and on an annualised rate the economy contracted 2.75% in the first quarter. The contraction is due to a slowdown in China which hurt exports and in turn is impacting domestic consumer sentiment adversely.

The government expects Taiwan's gross domestic product to grow 2.40% this year, slower than its initial estimate of 3.59%. The island has been hit by the worsening European economy and the weakening of export demand from China. The government cut its private consumption estimate for 2013 to 1.46% from 1.86% initially.

Consumer inflation reflects falling global commodity prices, and the prices of imported goods from Japan may continue to fall following the Japanese yen's depreciation. But with inflation remaining just above 1% there is little room for inflation to fall. However, people are feeling more insecure about their jobs and wages these days, which may further subdue price rises. Under these circumstances, monetary policy will be kept loose to support growth. With Taiwan's benchmark interest rate already at 1.875% — not far above the record low of 1.25% — an interest-rate cut from this level would have a limited impact on the economy. Taiwan's central bank, in late March, kept its three benchmark policy rates unchanged for the seventh-straight quarter. We expect the central bank to keep the interest rate unchanged through the end of 2014.

Taiwan's exports unexpectedly dropped in April because of the falling demand from China and Europe, boding ill for the growth of the export-reliant economy. Exports — which account for about two-thirds of Taiwan's GDP — are expected to grow only 2.82%, down from the 6.23% estimated in February. The exports in the first quarter contracted 1.9% from a year earlier to \$25.05 billion. In April exports to China fell 2.9% after having risen 6% in March. Exports to Europe dropped 19.3% after a 12.3% decline in March. April imports also shrank 8.90% to \$22.77 billion after rising 0.2% in March. Trade surplus of \$2.27 billion was recorded in April compared to the surplus of \$3.2 billion in March.

Taiwan's central bank has intensified its intervention in foreign-exchange markets to keep the island's currency relatively stable, after a surprise rate cut in South Korea and the recent plunge of the yen. The central bank would not like the New Taiwan dollar to appreciate as it would make Taiwan's exports less competitive than those of Japan and South Korea. The three economies compete in electronics products, such as flat panels and smartphones, and in petrochemical products.

Taiwan: Weighted TAIEX Price Index



	10	11	12	13	14
GDP (%p.a.)	10.8	4.0	1.3	2.0	2.4
Inflation (%p.a.)	1.3	1.2	1.9	1.1	1.2
Current A/c(US\$ bill.)	16.0	18.0	20.0	22.0	23.0
NT\$/\$(nom.)	31.0	30.0	29.5	29.5	29.0

Brazil

Brazil is passing through stagflation as a result of the government's distributive policies and excessive centralised decision making, which is delaying government functioning. Consequently, the growth rate of 3% which we forecast earlier is under threat. Average inflation is also unlikely to be less than 6% in 2013 and 2014. Consumer spending, the principle driver of Brazil's economy, is becoming more cautious. Household expenditure was flat in the first quarter of 2013 compared with the previous three months and supermarkets, restaurants and other businesses slowed down in April and May.

Due to stagflation it is unlikely that the government will be able to meet its surplus targets this year. Blame for this sorry state of affairs has to be shouldered by the government. The consumer-led economic model of former president Luiz Inácio Lula da Silva has played out. The Dilma model of economic development is showing signs of improvement. But her authoritative style of decisionmaking, where all decisions are centralised, makes the government machinery grind slowly. Of course, this has also slowed corruption. Ms Rousseff pays only lip service to market-orientated reforms in favour of protectionism for preferred industries, and their lobbies. Moreover, there is an absence of policy articulation and no follow-through. As a result, even though there are investors ready to invest in infrastructure projects such as ports, airports, bridges and roads, the regulatory framework is not properly in place that would allow the new infrastructure to be built. On the other hand, fiscal stimulus is generating inflation and next year could lead to a rise in net public debt. The only hope for 2014 is that the country's pragmatic streak will force the government to take the necessary investor friendly policy decisions.

The government is facing the herculean task of reviving the animal spirits of free markets to attract investments from overseas as other regional rivals, such as Mexico, are looking more market friendly.

The Brazilian Central Bank's monetary policy committee, in its meeting on May 29th, increased its benchmark Selic interest rate by 50 basis points to 8% to try to rein in inflation, which is hovering near the upper end of the central bank's target range. The bank implemented a quarter-point increase at its last meeting after inflation climbed above the 6.5% ceiling of the central bank's target range.

For the first four months of 2013, Brazil had a trade deficit of \$6.2 billion compared to a \$3.3 billion surplus for the same period in 2012, partly due to softening of commodity prices in the international market. But a second reason also helps explain the slump in manufacturing sector exports. As wages have increased exponentially in the last decade in U.S. dollar terms, from a combination of minimum wage policy and the appreciation of the Brazilian real, the industry has become less competitive and it is difficult for

it to compete with Asian countries. The Brazilian real is trading in the range of BRL 2.00–2.05 per dollar. That level is significantly stronger than the BRL 2.50 per dollar seen during the 2009 global crisis. Meanwhile, annual government increases to the benchmark minimum wage, 14% in 2012 and 9% this year, have outstripped inflation. The real had hovered around the BRL 2.05 level in the last week of May after trading around the BRL 2.00 mark for several months.

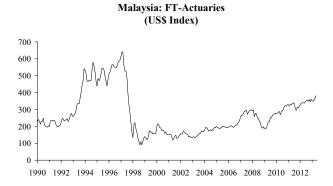
In 2013 we may see Brazil's largest pension funds to begin investing billions of dollars overseas in the developed economies. Global asset managers, investments banks and international private equity funds are flocking to the country's pension funds to try to win a share of the potential outward flows, which are estimated to be between \$25 billion and \$45 billion.

	10	11	12	13	14
GDP (%p.a.)	7.5	2.7	0.9	3.0	3.5
Inflation (%p.a.)	5.9	6.5	5.8	6.0	6.0
Current A/c(US\$ bill.)	-47.3	-52.6	-60.0	-65.0	-60.0
Real/\$(nom.)	1.7	1.5	2.0	2.0	2.0

Other Emerging Markets











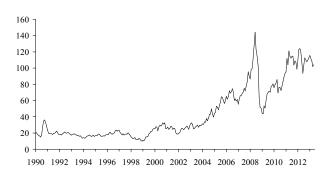


COMMODITY MARKETS

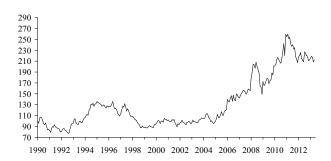
Commodity Price Index (Dollar) (Economist, 2000=100)



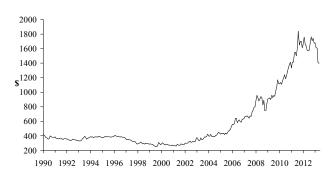
Oil Price: North Sea Brent (in Dollars)



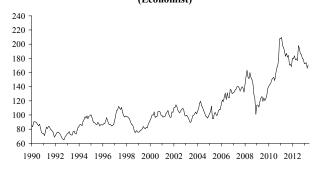
Commodity Price Index (Sterling) (Economist, 2000=100)



Gold Price (in Dollars)



Commodity Price Index (Euro) (Economist)



UK FORECAST DETAIL

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

	Inflation % ¹ (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100) ²	Real Exchange Rate ³	Real 3 Month Int. Rates % ⁴	Inflation (RPIX)	Real Short Dated Rate of Interest ⁵
2010	3.7	2.4	0.7	80.4	87.9	-3.6	4.8	-0.2
2011	4.7	2.0	0.9	80.0	89.7	-3.1	5.3	-0.2
2012	2.8	0.9	0.9	83.0	94.0	-1.9	3.3	-1.3
2013	2.8	1.3	0.9	83.5	95.7	-1.6	3.3	-0.8
2014	2.6	1.8	1.7	82.7	95.5	-0.5	3.1	-0.3
2015	2.2	2.1	2.1	82.1	95.5	0.1	2.8	0.0
2012:1	2.7	1.1	1.1	81.2	91.4	-2.0	3.8	-1.1
2012:2	3.1	0.9	1.1	83.2	94.3	-1.6	3.2	-1.2
2012:3	2.7	0.7	0.8	84.1	95.3	-2.0	2.9	-1.4
2012:4	2.8	0.8	0.6	83.6	95.2	-2.0	3.3	-1.4
2013:1	2.9	1.0	0.8	83.7	95.5	-1.8	3.4	-1.2
2013:2	2.8	1.3	0.9	83.2	95.4	-1.6	3.3	-0.8
2013:3	2.8	1.5	0.9	83.7	96.0	-1.6	3.3	-0.6
2013:4	2.7	1.5	1.1	83.3	95.8	-1.3	3.2	-0.6
2014:1	2.6	1.8	1.3	83.1	95.8	-1.1	3.2	-0.3
2014:2	2.5	1.8	1.7	82.3	95.2	-0.6	3.1	-0.2
2014:3	2.6	1.7	1.8	82.4	95.2	-0.3	3.1	-0.3
2014:4	2.5	1.8	1.9	82.7	95.8	-0.2	3.0	-0.2

Consumer's Expenditure Deflator

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100) ¹		Unemployment (New Basis) Percent ³	Millions	Real Wage Rate ⁴ (1990=100)
2010	227.1	2.4	4.6	1.50	136.7
2011	232.7	2.6	4.6	1.53	133.7
2012	236.9	1.8	4.7	1.58	132.4
2013	242.0	2.2	4.4	1.49	131.6
2014	248.9	2.8	4.0	1.37	131.9
2015	257.0	3.3	3.7	1.26	133.3
2012:1	234.7	0.7	4.8	1.61	132.7
2012:2	235.8	1.8	4.8	1.60	132.0
2012:3	237.4	1.9	4.7	1.58	132.4
2012:4	239.6	2.9	4.6	1.56	132.4
2013:1	240.4	2.4	4.6	1.54	132.1
2013:2	242.0	2.6	4.5	1.51	131.7
2013:3	242.2	2.0	4.4	1.48	131.4
2013:4	243.6	1.6	4.3	1.45	131.0
2014:1	245.5	2.1	4.2	1.42	131.4
2014:2	248.1	2.5	4.1	1.39	131.7
2014:3	249.7	3.1	4.0	1.36	132.1
2014:4	252.1	3.5	3.9	1.33	132.4

Whole Economy

Sterling Effective Exchange Rate Bank of England

Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate

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

² Average Earnings

Wholly unemployed excluding school leavers as percentage of employed and unemployed, self employed and HM Forces

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
2010	145.1	694701.4	411042.6	234029.9	182002.2	-34548.2	97825.1
2011	146.4	701060.5	402885.3	243646.3	177479.4	-23548.2	99402.3
2012	146.5	701719.7	401183.5	249576.1	183170.0	-31081.5	101129.7
2013	148.7	712270.2	404503.8	255592.0	187385.7	-31240.0	103971.4
2014	151.8	726827.7	411964.1	261350.6	191244.9	-31189.9	106537.5
2015	155.4	744363.4	421121.2	267868.0	195837.6	-31120.2	109344.0
2010/09	1.8		0.5	7.6	0.5		0.8
2011/10	0.9		-2.0	4.1	-2.5		1.8
2012/11	0.1		-0.4	2.5	3.2		1.9
2013/12	0.8		0.6	2.4	2.3		6.7
2014/13	2.0		1.4	2.3	2.1		0.6
2015/14	2.4		2.2	2.5	2.4		2.6
2012:1	146.2	175013.2	100300.2	59839.5	47225.9	-6742.4	25610.0
2012:2	145.6	174362.8	100083.3	61272.9	44458.8	-8868.5	22583.7
2012:3	147.0	176010.2	100053.3	64467.5	45567.2	-7659.5	26418.3
2012:4	147.3	176333.5	100746.7	63996.2	45918.1	-7811.1	26516.4
2013:1	147.5	176575.7	100799.5	61159.6	48592.6	-7807.4	26168.6
2013:2	147.6	176695.9	100847.8	64387.0	45700.5	-7814.6	26424.9
2013:3	147.8	176933.2	100899.6	64777.0	46404.9	-7811.4	27336.9
2013:4	148.0	177167.9	100947.5	65268.4	46687.6	-7806.7	27928.9
2014:1	149.2	178552.7	101496.4	62894.2	49472.8	-7807.8	27502.9
2014:2	150.2	179823.2	102046.2	66223.1	46613.4	-7802.0	27257.5
2014:3	151.4	181216.6	102600.6	66062.4	47385.6	-7791.4	27040.7
2014:4	152.1	182614.3	103156.5	66171.0	47773.1	-7788.7	26697.6

Financial Forecast

	PSBR/GDP % ¹	GDP ¹ (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
			Financiai Teai		(2 DH)
2010	8.7	1336.3	115.1	36.4	-37.3
2011	6.7	1406.4	94.2	42.9	-20.4
2012	6.5	1451.6	95.4	47.0	-51.9
2013	6.5	1519.3	98.2	50.6	-52.2
2014	5.3	1592.8	84.7	55.8	-52.8
2015	4.3	1666.2	72.2	59.0	-53.0
2012:1	4.6	355.1	16.3	11.5	-11.8
2012:2	1.7	351.8	6.0	11.3	-17.4
2012:3	6.2	363.1	22.7	11.8	-12.8
2012:4	9.9	367.2	36.5	11.8	-9.8
2013:1	8.2	369.5	30.2	12.0	-13.9
2013:2	6.2	373.6	23.1	12.3	-15.5
2013:3	5.9	377.2	22.1	12.4	-13.1
2013:4	5.9	382.1	22.7	12.8	-9.8
2014:1	7.8	386.3	30.3	13.1	-14.0
2014:2	5.4	391.4	21.0	13.6	-15.7
2014:3	5.6	395.4	22.1	13.8	-13.2
2014:4	5.6	400.4	22.5	14.0	-9.8

GDP at market prices (Financial Year)

GDP at factor cost. Expenditure measure; seasonally adjusted
Consumers expenditure less expenditure on durables and housing
Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building
General government current and capital expenditure including stock building

Exports of goods and services less imports of goods and services

WORLD FORECAST DETAIL

Growth Of Real GNP							
	2009	2010	2011	2012	2013	2014	
U.S.A.	-2.6	2.6	1.7	2.2	2.2	2.8	
U.K.	-3.9	1.8	0.9	0.1	0.8	2.0	
Japan	-6.3	4.3	-0.7	2.0	1.6	1.6	
Germany	-4.7	3.6	3.0	0.7	0.8	2.0	
France	-2.5	1.5	1.7	0.0	-0.1	1.1	
Italy	-5.1	0.9	0.5	-2.4	-1.3	0.7	

Growth Of Consumer Prices							
	2009	2010	2011	2012	2013	2014	
U.S.A.	-0.3	1.8	3.1	2.1	2.0	2.0	
U.K.	1.3	3.7	4.7	2.8	2.8	2.6	
Japan	-1.4	-1.0	-0.3	0.0	0.0	2.0	
Germany	0.4	1.1	2.3	2.0	1.7	2.0	
France	0.1	1.5	2.1	2.0	1.6	2.0	
Italy	0.8	1.5	2.8	3.0	2.8	2.5	

Real Short-Term Interest Rates							
	2009	2010	2011	2012	2013	2014	
U.S.A.	-1.6	-3.0	-1.8	-1.9	-1.3	-1.2	
U.K.	-0.3	-3.6	-3.1	-1.9	-1.6	-0.5	
Japan	1.1	0.4	0.4	0.3	-1.6	-1.6	
Germany	-0.4	-1.9	-0.5	-1.5	-1.5	-1.4	
France	-0.8	-1.7	-0.5	-1.4	-1.5	-1.4	
Italy	-0.8	-2.4	-1.5	-2.6	-2.0	-1.4	

Nominal Short-Term Interest Rates							
	2009	2010	2011	2012	2013	2014	
U.S.A.	0.2	0.1	0.3	0.1	0.7	0.8	
U.K.	1.1	0.7	0.9	0.9	0.9	1.7	
Japan	0.1	0.1	0.4	0.3	0.4	0.4	
Germany	0.7	0.4	1.5	0.2	0.5	0.6	
France	0.7	0.4	1.5	0.2	0.5	0.6	
Italy	0.7	0.4	1.5	0.2	0.5	0.6	

Real Long-Term Interest Rates								
	2009	2010	2011	2012	2013	2014		
U.S.A.	1.3	1.0	0.9	-0.2	0.1	0.6		
U.K.	-0.3	-0.2	-0.2	-1.3	-0.8	-0.3		
Japan	1.2	0.4	-0.2	-0.8	-1.3	-1.1		
Germany	2.2	1.8	-0.1	-0.4	-0.5	-0.1		
France	2.2	1.9	-0.1	-0.4	-0.5	-0.1		
Italy	1.5	1.2	-0.7	-0.8	-0.6	-0.1		

Nominal Long-Term Interest Rates							
	2009	2010	2011	2012	2013	2014	
U.S.A.	3.2	3.1	1.9	1.8	2.1	2.6	
U.K.	2.8	2.4	2.0	0.9	1.3	1.9	
Japan	1.3	1.1	1.0	0.8	0.7	0.9	
Germany	4.0	3.8	1.8	1.5	1.5	1.9	
France	4.0	3.8	1.8	1.5	1.5	1.9	
Italy	4.0	3.8	1.8	1.5	1.5	1.9	

Index Of Real Exchange Rate(2000=100) ¹									
	2009	2010	2011	2012	2013	2014			
U.S.A.	88.7	87.4	85.7	90.4	97.3	99.1			
U.K.	76.7	78.9	80.5	84.4	85.9	85.7			
Japan	89.0	92.0	97.1	98.3	119.7	122.0			
Germany	105.8	102.9	105.5	104.3	107.4	108.2			
France	104.3	103.1	105.5	104.9	107.9	108.6			
Italy	105.4	103.6	106.9	107.4	111.8	113.2			

Nominal Exchange Rate (Number of Units of Local Currency To \$1) 2009 2010 2011 2012 2013 2014 $U.S.A.^{1}$ 85.98 83.73 78.08 80.90 85.50 85.40 U.K. 1.57 1.55 1.61 1.59 1.56 1.56 Japan 93.54 87.48 79.36 80.51 98.00 98.00 0.79 Eurozone 0.72 0.75 0.71 0.78 0.78

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.

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