LIVERPOOL INVESTMENT LETTER

February 2016

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 collabouration between the Cardiff Business School of Cardiff University and Julian Hodge Bank. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. This research has been given especial relevance by the ongoing discussions on the extra powers regularly requested by the European Union and also by the recent crisis in the eurozone.

The Liverpool Investment Letter is written by Patrick Minford, with the assistance of other members of the Group; in particular the emerging markets section is written by Anupam Rastogi, and the focus on Japan is written by Francesco Perugini. The Investment Letter is published monthly.

The Liverpool Research Group in Economics is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. The Group is now mainly based in Cardiff Business School, Cardiff University, and is indebted to the School and to the Jane Hodge Foundation for their support. The Group's activities contribute to the programmes being pursued by the Julian Hodge Institute of Applied Macroeconomics. This Liverpool Investment Letter is typeset by David Meenagh and Bruce Webb and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

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IS A RECESSION THREATENING?

Growth slowed in the last quarter of 2015. It happened here and now we know it happened in the US. China has also slowed down but no-one really trusts the official growth rate of 6.9%. Emerging market countries dependent on raw material exports have been badly hit — including Russia and Brazil. Those raw material prices, led by oil and gas, continue to fall. Many are saying that world growth is moving towards recession.

In many ways we are seeing a repeat of the early 1980s. Then too there was a bad world recession in 1980–82 and then too raw material prices fell sharply in the following two decades. Yet growth revived from 1982 and persisted with little interruption until 2007 — by which time those commodity prices were once again assaulting their earlier peaks. Soon after began the Great Recession.

The essential point seems to be that low raw material prices are good for world growth. They signal abundance of raw resources and raise the profit rate in 'final' activities where productivity growth can be rapid. Hence investment in these final production sectors is strong. True, investment stops in raw material sectors. But this investment is relatively small in the world investment total. Furthermore it cannot go more negative than the rate of depreciation, which is fairly low (oilfields and large mines do not wear out quickly).

Consumption in material-consuming countries also rises, fuelled by higher real incomes. Again this is quite a lot larger than consumption in material-producing countries.

What is noticeable today is that consumers in the major economies are enjoying improving real incomes as real wages and employment rise. Even the euro-zone is now recovering if weakly, as a result of these pressures.

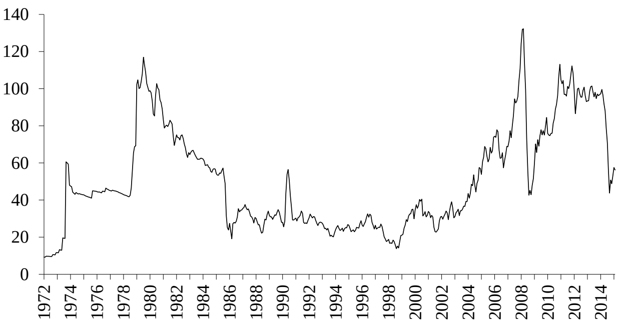
An element that is currently important is monetary policy. The decision of the US Fed to raise interest rates at the end of last year and to signal further slow rises in 2016 has caused share and bond market volatility. Both the ECB and the Bank of Japan have moved in the opposite direction, pushing interest rates on bank balances negative, while the Bank of England has held rates constant at close to zero. Very large amounts of monetary base — money 'printed' by the QE programmes of all these central banks — are being held by commercial banks around the world. The Fed is clearly nervous, now that total money growth is back up to respectable rates, about the possibility of some sort of credit boom taking hold again. This nervousness is also encouraged by worries about 'shadow banking' growth whereby alternative sources of credit such as crowd-funding and peer-to-peer lending add to this boom. We are seeing in practice some loosening of the draconian controls on banks put in place after the crisis; these were a mistake in the sense that they persuaded banks to contract their

Table 1: Summary of Forecast

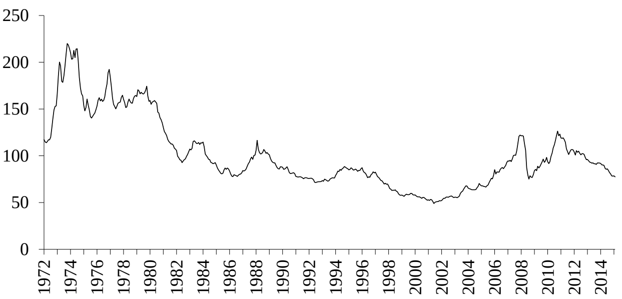
	2012	2013	2014	2015	2016	2017	2018
GDP Growth[1]	0.7	1.7	2.8	3.1	2.5	2.4	2.4
Inflation CPI	2.1	2.3	1.7	0.1	1.1	1.6	2.0
RPIX	3.2	3.1	2.4	1.0	2.0	2.4	2.7
Unemployment (Mill.)							
Ann. Avg.[2]	1.6	1.4	1.1	0.9	0.8	0.8	0.7
4th Qtr.	1.6	1.3	1.0	0.9	0.8	0.8	0.7
Exchange Rate[3]	83.0	81.6	87.1	91.6	90.4	90.5	90.1
3 Month Interest Rate	0.9	0.6	0.6	0.5	0.7	1.1	1.7
5 Year Interest Rate	0.9	1.3	1.8	1.4	2.0	2.2	2.5
Current Balance (£bn)	−53.2	−84.2	−99.9	−91.0	−79.8	−76.2	−75.7
PSBR (£bn)	110.6	94.9	83.3	74.6	59.5	51.2	31.3

[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)

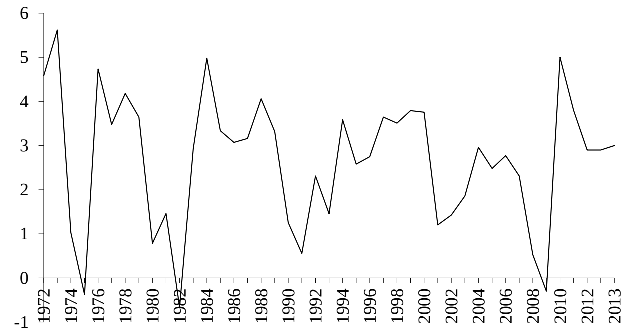
Price of a barrel of oil, US$, 2010 prices



Commodity Real Price Index - Non Energy (2010=100)



World GDP Growth



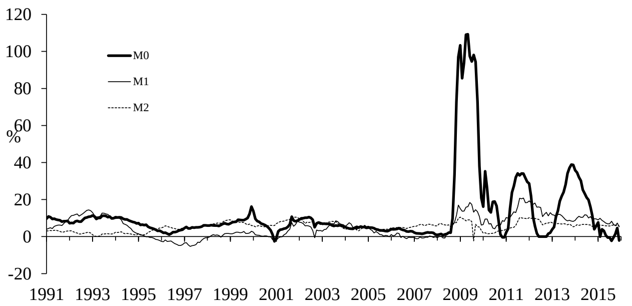
balance sheets just when the world needed them to expand. That loosening too could encourage more use of the currently idle money balances they hold.

It seems that the behaviour of inflation, which is barely positive in most major economies, contradicts any such prospect. Yet these inflation figures are dominated by falling material prices. True, nominal wage growth is still not strong; but it is picking up. Nominal GDP growth — i.e. growth in output plus the price of home value-added — is probably around 4% in the US. This is still weak by past standards. But it is moving towards 5% during 2016.

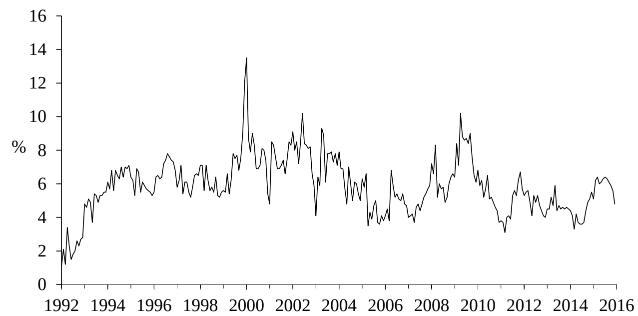
Central banks are supposed to worry about future inflation and credit booms. Therefore it would be surprising if monetary policy did not become a bit less loose in the US during 2016. UK policy will almost certainly follow the US. The ECB and Japan are exceptional; Japan is determined to eradicate deflation and the ECB is struggling against weak demand post-crisis.

It seems to us highly unlikely that such modest tightening will derail a world economy that is being so stimulated by the low prices of raw materials.

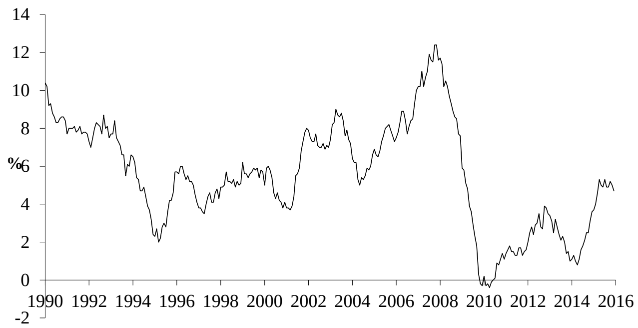
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



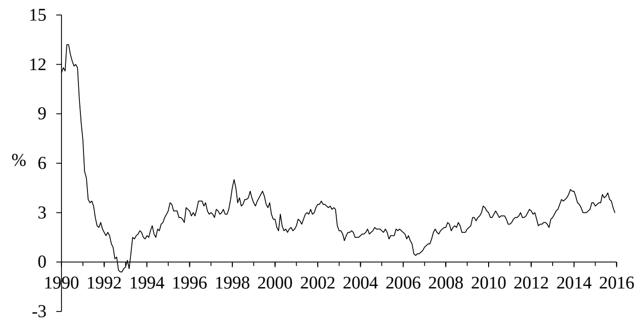
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

Bank of Japan adopts negative interest rates

The Bank of Japan (BOJ) decided to adopt negative interest rates at its policy meeting held at the end of January, voting 5-4 to apply an interest rate of –0.1% on current accounts held at the central bank. The surprise move triggered a rally on the Tokyo Stock Exchange, with the Nikkei 225 rising almost 600 points at one stage, but then falling back sharply as investors contemplated the effects of the new measure. The yen weakened by as much as 2.2% against the dollar.

In a statement, the BOJ said it adopted the negative interest rate policy in order to achieve its price stability target of 2% at the earliest possible time, and signalled that it will "cut the interest rate further into negative territory if judged necessary." The BOJ also decided to maintain its quantitative and qualitative easing program at its current level, buying assets at a rate of ¥80 trillion a year.

With this move, BOJ want to dissuade lenders from parking cash with them. The hope is that they will use that money to lend to individuals and businesses, which in turn will spend the money and boost the economy and contribute to inflation. It is also aiming to force investors to shift money out of bank accounts and into higher-yielding assets. "Through the minus interest rate combined with quantitative easing, I hope we can support companies and individuals in breaking their deflationary mindset," said BOJ Governor Kuroda at the press meeting. He said China's slowdown and market volatility this year had threatened to damage business confidence in Japan.

Indeed, observers said that there are a number of reasons for the new measures. The most pressing is the fact that the BOJ continues to struggle to achieve its goal of pushing inflation back up to 2%. The timeframe for reaching that was delayed again: originally hoped for in 2015 when it was announced in 2013, last October it was pushed back to late 2016/early 2017. And now a further delay of up to a year was announced. Part and parcel of those concerns is the recent strength of the Japanese yen. While the currency has weakened sharply since late 2012 when the dollar fetched less than ¥80, it had found some renewed strength recently. Weak economic data and concerns that the bank's ability to expand its already sizable asset-buying program amid liquidity concerns are also seen contributing to the move.

One big question is how much the negative rates will boost Japan's economy. Unlike similar moves in Europe, the BOJ exempted all existing bank reserves from the negative rate, so the impact in terms of more lending would probably be limited. Specifically, under the "three-tier system", each financial institution's current account at the Bank will be divided into three tiers to which a positive, negative and zero interest rate will be applied. The purpose of this is to maintain the stability of lenders; such a system is also used by central banks in Switzerland, Sweden and Denmark.

For banks lending to each other, what matters is the return on an extra yen of deposits, so interbank rates are likely to turn negative straight away. "The effect will appear quickly in the short-term asset markets," said Takashi Shiono of Credit Suisse in Tokyo. In theory, banks should cut what they charge on loans accordingly. That may not stimulate a big increase in the demand to borrow, however. "Our experience over the past few years suggests lower rates do not transmit strongly to growth and inflation," said Kiichi Murashima, an economist at Citigroup in Tokyo. As banks will keep earning 0.1% on their existing reserves, the move will create little immediate pressure on them to take additional risk, or cut the interest rates they pay to retail and corporate depositors.

Economists also believe that the negative interest would affect market interest rates and is likely to reduce profits at commercial banks. They say the new step could also make it difficult for the BOJ to continue massive buying of government bonds from financial institutions, as it would be less attractive for them to manage their funds with a negative interest rate. "The negative interest rate policy is likely to have more negative effects than positive ones," said Kentaro Koyama, economist at Deutsche Securities.

However, BOJ Governor. Kuroda showed confidence that the additional easing measure would stir personal consumption and investment to help the economy expand and lift consumer prices toward 2% inflation. But observers maintain the view that the BOJ will continue to face difficulties pursuing the inflation target. "With lending interest rates at Japan's financial institutions already low at around 1%, there is little room for further reduction," said Masaaki Kanno, chief economist at JPMorgan Securities Japan Co echoed. "The BOJ is likely to continue facing a long and painful road ahead" as the headwind is becoming stronger, Kanno said.

Overall, experience in Europe shows that a negative-rate policy eases the strengthening of the home currency but does little beyond that. European monetary authorities see negative rates as just another policy option and nothing revolutionary. Monetary policy does not boost an economy's potential growth rate. Regulations need overhauling to promote corporate innovation and structural reform.

MARKET DEVELOPMENTS

There has been quite a bit of volatility in equity and bond prices in recent weeks, following the Fed's rise in rates and with the ongoing worries about China. With large raw material companies visibly hit by low prices nerves have been on edge. Taking a longer view equity prices have been rising for some time since the crisis; we expect this to continue as a longer term trend. We also expect bond prices to trend downwards in the next five years as inflation revives in the wake of low commodity prices and continued loose money worldwide.

Table 1: Market Developments

	Market Levels		Prediction for Jan/Feb 2016/17	
	Dec 31	**Jan 27**	**Previous Letter**	**Current View**
Share Indices				
UK (FT 100)	6242	5932	8833	8423
US (S&P 500)	2044	1893	2669	2367
Germany (DAX 30)	10743	9640	14922	13775
Japan (Tokyo New)	1547	1392	2111	1849
Bond Yields (government				
UK	1.96	1.67	2.50	2.00
US	2.29	2.00	2.10	2.10
Germany	0.63	0.41	1.50	0.70
Japan	0.27	0.22	0.70	0.40
UK Index Linked	–0.70	–0.89	0.10	0.10
Exchange Rates				
UK ($ per £)	1.48	1.44	1.50	1.50
UK (trade weighted)	90.7	87.8	91.7	90.8
US (trade weighted)	106.0	106.5	100.0	100.0
Euro per $	0.92	0.91	0.91	0.91
Euro per £	1.36	1.32	1.37	1.37
Japan (Yen per $)	120.6	118.7	120.5	120.5
Short Term Interest Rates (3-month deposits)				
UK	0.60	0.50	1.20	1.00
US	0.65	0.75	1.10	1.20
Euro	–0.17	–0.19	0.10	0.00
Japan	0.00	0.00	0.20	0.20

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.40	2.5	1.5	38.00		45.40
US	1.90	2.5	1.5	21.00	–4.25	22.65
Germany	2.60	1.8	1.1	40.00	–3.79	41.71
Japan	1.70	1.2	0.6	31.00	–5.84	28.66
UK indexed[2]	–0.89		1.5	1.00		1.62
Hong Kong[3]	2.60	6.0	1.5	–3.00	–4.25	2.85
Malaysia	3.30	6.1	1.5	64.00	–4.25	70.65
Singapore	3.50	3.0	1.5	21.00	–4.25	24.75
India	1.40	7.3	1.5	24.00	–4.25	29.95
Korea	1.10	3.0	1.5	–17.00	–4.25	–15.65
Indonesia	2.20	5.0	1.5	30.00	–4.25	34.45
Taiwan	2.80	3.4	1.5	12.00	–4.25	15.45
Thailand	3.20	4.0	1.5	37.00	–4.25	41.45

Bonds: Contribution to £ yield of:

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	1.67	–3.30		–1.63
US	2.00	–1.00	–4.25	–3.25
Germany	0.41	–2.90	–3.79	–6.28
Japan	0.22	–1.80	–5.84	–7.42

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.50		0.50
US	0.75	–4.25	–3.50
Euro	–0.19	–3.79	–3.98
Japan	0.00	–5.84	–5.84

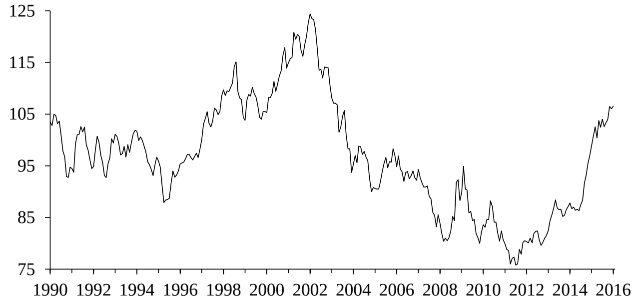
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

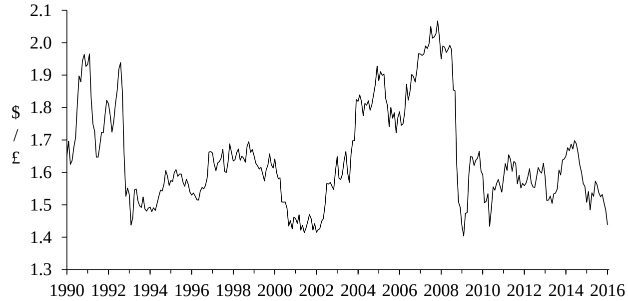
	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	January Letter	Current View	January Letter	Current View	January Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-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

INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS

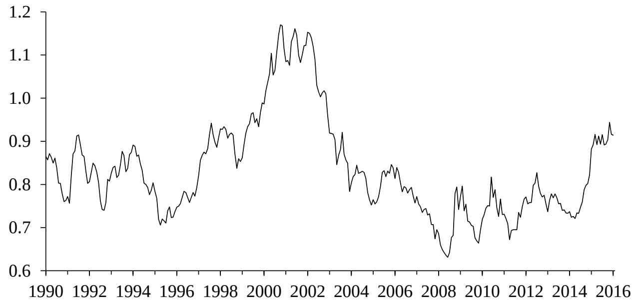
US : Trade Weighted Index
(Bank of England 1990 = 100)



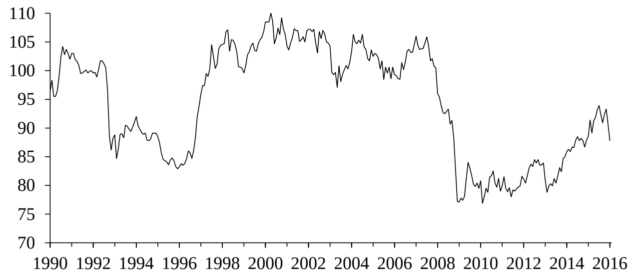
UK: Dollars Per Pound Sterling



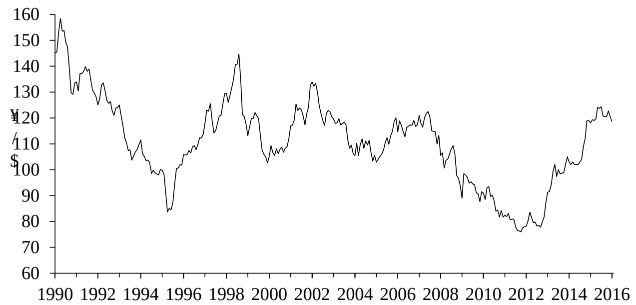
Euro per US dollar



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

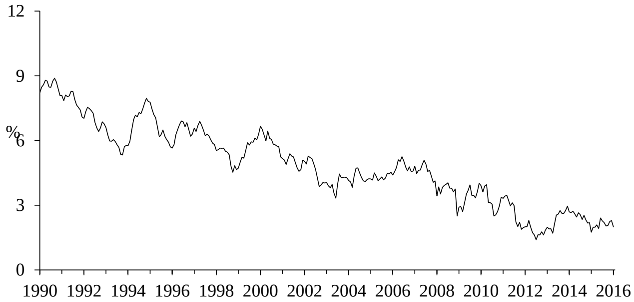


Japan : Yen Per U.S. Dollar

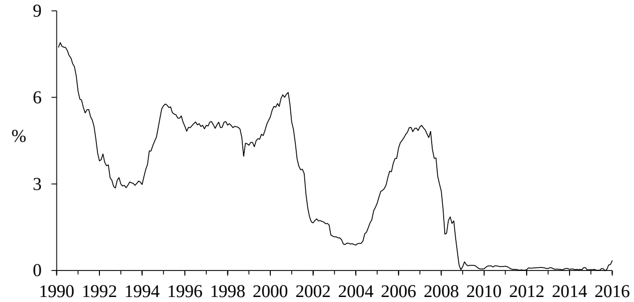


GOVERNMENT BOND MARKETS

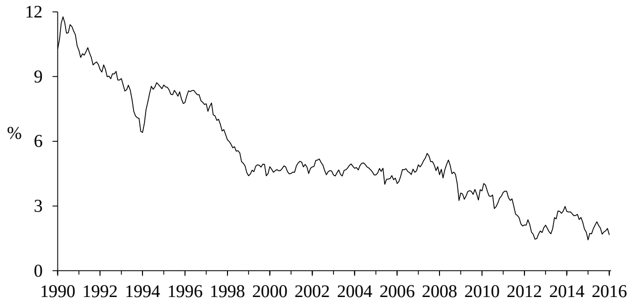
U.S.: Yield on Long-Term Government Bonds



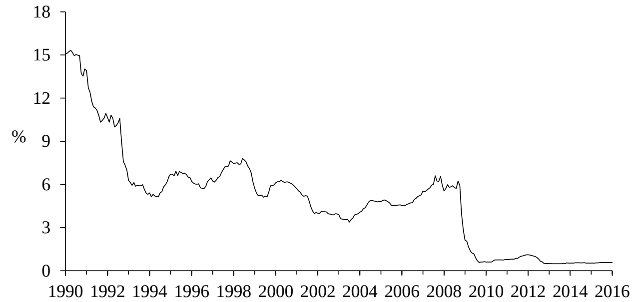
U.S. : 3-Month Treasury Bill



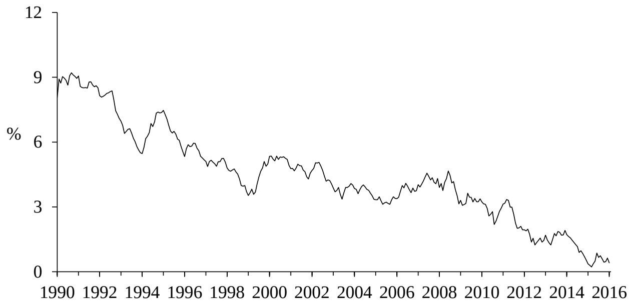
U.K.: Yield on Long-Term Government Bonds



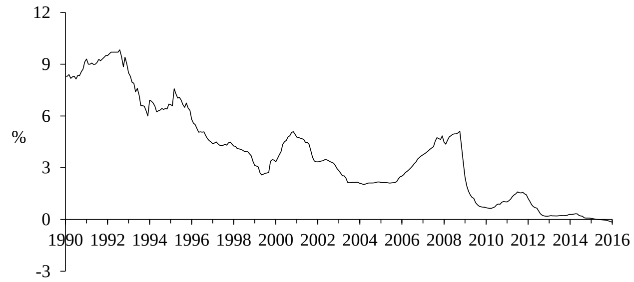
U.K. : 3-Month Interbank Rate



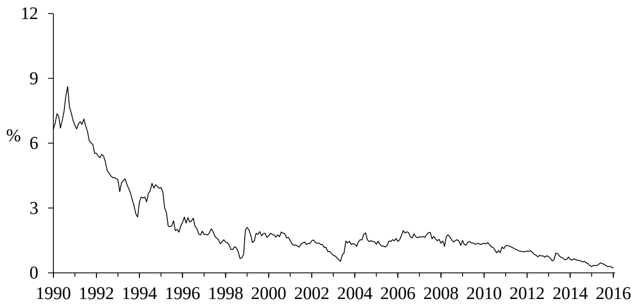
Germany: Yield on Public Authority Bonds



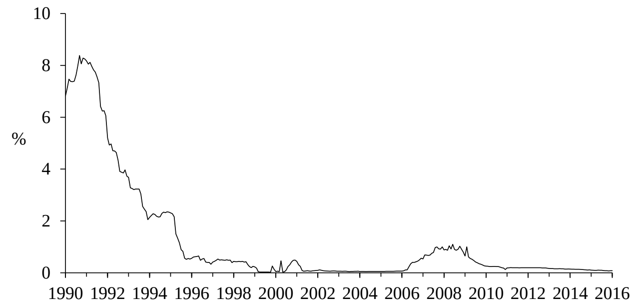
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds

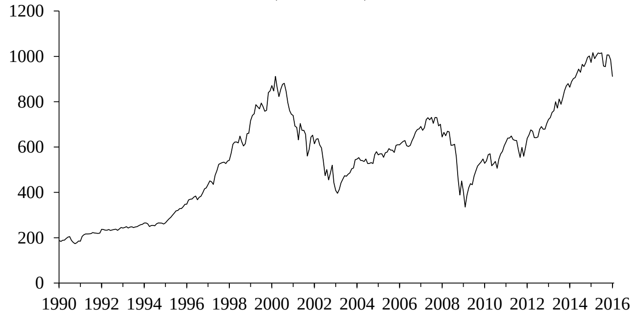


Japan : 3 Month Money Market Rate

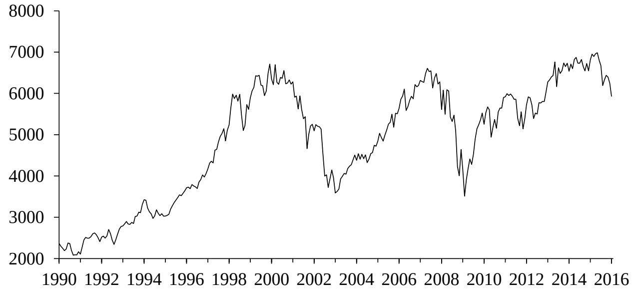


MAJOR EQUITY MARKETS

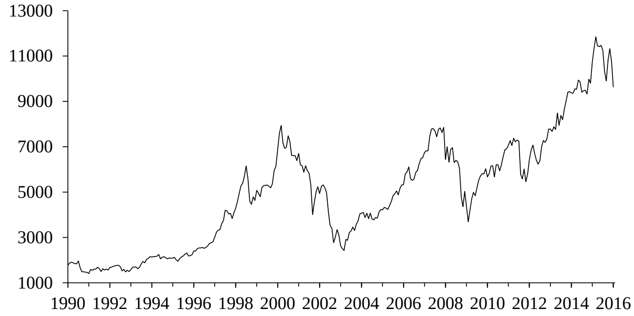
U.S. : S & P 400 Industrial (1985=100)



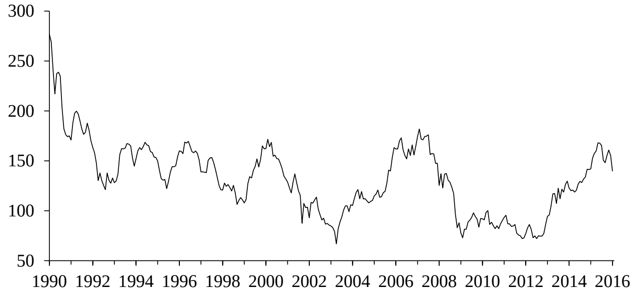
U.K. : FTSE-100 Index (10 April 1962=100)



Germany : DAX 30



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



EMERGING MARKETS

Anupam Rastogi

India

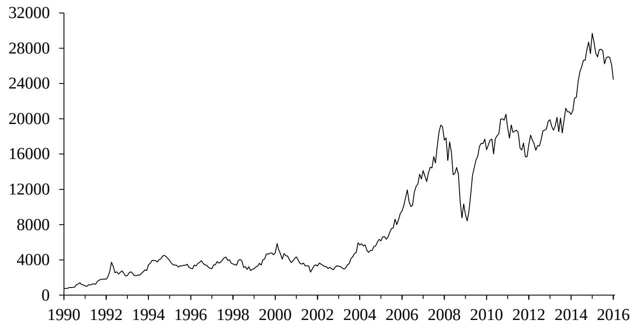
The World Bank sees India as a bright spot amid a gloomy outlook for developing countries in the next two years. It expects India to withstand near-term headwinds and volatility in global financial markets. It expects India to grow 7.3% to 7.8% in 2016 and improving its growth rate to 7.9% by 2018. The tumbling price of oil, lower food-price inflation and a public-sector wage increase could help urban spending.

Further away one is from Indian shores, rosier is the outlook of India. Within India, people are not as confident about the growth prospects in coming years. Modi magic is waning and disappearing very fast. The present government faces legislative gridlock. The legislative changes intended to do business in India easier, are being stalled by the opposition parties. The present government is in no mood to cut a deal with the opposition. The forthcoming budget session, going to be scheduled in the last week of February, will be stormy. Other than money bills, no legislative work is likely to be done. It seems that Modi's government is keen to build a working majority in the upper house of the parliament, over the next two years, before it takes up any legislative reforms. In the meantime, all reforms will be administrative reforms. Well, economy is unlikely to stall but growth will remain below 7% in 2016 and 2017.

Consumption in urban areas is picking up, while government consumption and public investment numbers are rising due to the government's increased focus on productive spending. However, consumers in rural areas still aren't spending. India's exports are weak, while private investment also isn't showing signs of coming out of a prolonged slump. The government's plan to redirect money for capital spending — to build roads, ports and other infrastructure that help catalyse the economy — using public-private partnership is facing difficulty as banks are overstretched in lending to infrastructure companies. Banks past loans given to infrastructure companies are turning into non-performing assets.

CPI inflation in 2015–16 is most likely to undershoot the central bank's target of 6% and would remain docile in the next fiscal year. But, this year may be the toughest yet for India's central bank governor Raghuram Rajan, as he tries to steer Asia's third-largest economy through a global slowdown and keep the depreciation of the country's currency under control. The central bank has amassed huge stockpile of forex reserves, and the rupee is steady against the U.S. dollar. But, a gradual fall in rupee to its all-time low of 68.80 against the dollar has shrunk the monetary-policy space. There may be increased demand to lower repo rate — at which the RBI lends money to commercial banks in the event of any shortfall of funds — but he may not lower more than 50 basis points. Current repo rate is 6.75%.

India: BSE Sensitive



The gains made by the Sensex since Narendra Modi came to power have been wiped out by a global rout on stocks. The Sensex is running just above the level of 24,121.74, the index hit on May 16, 2014, the day Narendra Modi won the general election to become prime minister. Apart from gridlock in parliament, other factors which are holding back investment are the continuing financial problems of Indian banks and of many large corporations and the real cost of borrowing.

The Indian market has been hit by a high volume of foreign-fund outflows in recent months as the sharp fall in oil prices fall has triggered redemptions in funds domiciled in oil-exporting countries. If oil remains below $30 [a barrel] a rally will not come in the Indian market. Such investors have withdrawn $3 billion, part of a broader pullback from emerging markets. Foreign fund managers have already pulled $1.6bn out of Indian equities so far this year, reversing much of last year's $3.75bn in inflows. At this juncture, Indian markets can at best be described as Morgan Stanley's India team put it: "India is still the best house in a bad neighbourhood."

	13–14	**14–15**	**15–16**	**16–17**	**17–18**
GDP (%p.a.)	6.9	7.3	7.3	7.0	7.5
WPI (%p.a.)	7.0	6.0	5.2	4.2	4.0
Current A/c(US$ bill.)	-50.0	-34.0	-24.0	-28.0	-32.0
Rs./$(nom.)	60.0	62.0	66.5	68.5	70.0

China

Nobody believes China's GDP growth figures. Reason could be that nominal GDP growth is lower than the reported GDP growth rate. In nominal terms, China grew just under 6%, the slowest since last century. This is lower than headline GDP growth rate of 6.9% for 2015. It's usually the other way around. The reason was a negative price deflator, indicating overall deflation. It was the third time in four quarters that China's deflator has been negative, giving the headline number a boost. Moreover, with debt in the economy still growing at twice that rate, it implies that a huge amount of new lending is going nowhere but to pay off old loans. It's a vicious cycle that will be hard for China to escape.

The World Bank forecast for China's GDP growth is 6.7 % in 2016. It is no longer a matter of debate whether the economy is slowing, but of measuring its effects. The ruling Communist party projects an average annual growth rate of 6.5% over the next five years.

For all of 2015, CPI rose 1.4% — its slowest annual increase since 2009 and well below Beijing's goal of keeping last year's inflation below 3%. China's consumer inflation edged higher in December on rising food prices. In January, thanks to the Chinese New Year, CPI will rise more. For all of 2015, the PPI fell 5.2% compared with a decline of 1.9% in 2014. There is little probability that PPI would stabilize in 2016.

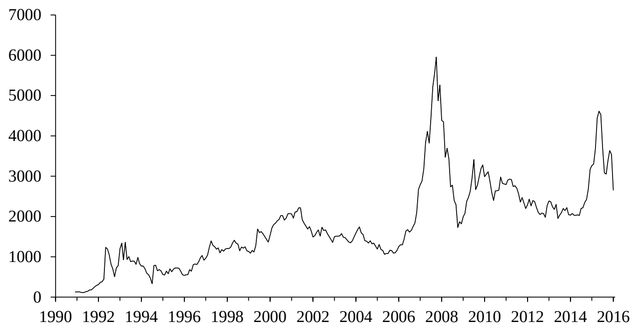
According to the Bank for International Settlements, the Chinese yuan has risen 34% since 2010 against a weighted basket of its trading partners' currencies. But, it gained 19% in the past six years, after adjusting for the "supply-chain effect". While the yuan is still likely to depreciate against the dollar this year.

The People's Bank of China is trying to ease monetary policy without causing further depreciation pressure on the yuan. The fear is that unleashing reserves into the banking system would put more downward pressure on the currency. Companies are adept at moving money in and out, disguised as trade flows. More-draconian measures, such as lowering the $50,000 limit on individuals' foreign-currency purchases, could spark a domestic panic.

Central banks, all over the world are worried about devaluation of yuan and capital outflows from China. Let us understand that how China managed its foreign exchange policy.

Over the years, the Chinese yuan has been largely pegged against the American dollar. The People's Bank of China, the Chinese central bank, has ensured that the value of the yuan has fluctuated in a fixed range around the dollar. This has been primarily done in order to take away the currency risk that the Chinese exporters may have otherwise faced.

China: SSE Composite Index



In a world where so many things have changed in the aftermath of the financial crisis which started in September 2008, the value of the Chinese yuan against the dollar has been one of the few constants.

Over the last few months, the value of the Chinese yuan against the dollar has gradually been allowed to fall. In August 2015, the People's Bank of China pushed the value of the dollar against the yuan, from 6.2 to around 6.37. In November 2015, one dollar was worth around 6.31 yuan. By the end of the year, one dollar was worth 6.48 yuan, with the yuan gradually depreciating against the dollar.

In the New Year, the yuan has depreciated further against the dollar and one dollar is now worth around 6.58 yuan. So what is happening here? It is important to understand how the People's Bank of China has over the years maintained the value of the yuan against the dollar. It was the dollars which exporters brought to the country and bought back by the central bank at a fixed rate. This provided liquidity to the economy. All these yuan were printed by the central bank.

The situation has reversed in the recent past. Money is now leaving China. Hence, the total amount of dollars leaving China is now higher than the dollars entering it. And this has created a problem for the Chinese central bank. Between July and September 2015, the net capital outflows reached $221 billion. This occurred for the sixth straight quarter and still continuing.

When any economy is in trouble it is the locals who start to withdraw money first. This is clearly happening in China. And that has got the world worried. Also, China is a major consumer of commodities and any economic slowdown in China, will lead to a fall in commodity demand.

In the past two years, the PBOC has spent $700 billion of foreign-exchange reserves to maintain the yuan's peg to the ever-strengthening dollar. Those reserves now stand at $3.3 trillion, down from almost $4 trillion in mid-2014.

At a World Economic Forum, Fang Xinghai, a senior economic adviser to the Chinese leadership, said the government was committed to a new approach in which it would manage the yuan according to its performance against a basket of global currencies, as opposed to just setting it against the U.S. dollar. It was the first time officials have said so clearly about their new forex regime. Moreover he said the success of the new approach should be measured in the long-run and not by day-to-day shifts in policy. He was rebuked by the IMF MD Christine Lagarde, saying officials need to do a better job communicating their exchange-rate approach. Until that time, the central bank has never publicly explained its intentions behind each of those adjustments. And market turmoil in recent months has coincided with the hard-to-discern shifts in China's exchange-rate approach.

China now faces the impossible trinity: the ability to manage interest rates and the exchange rate while simultaneously moving towards a free capital account. China has spent $700bn over the past year, to temper decline of yuan. It has now stabilized at Rmb6.58 against the US currency.

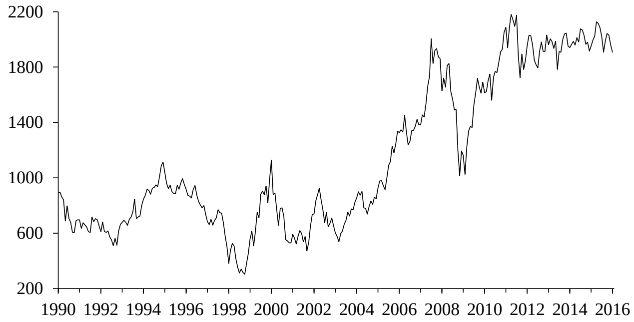
Incidentally, China's foreign exchange reserves fell by the most on record in December, a sign of accelerating capital outflows and spending by the central bank to boost the yuan. Reserves fell $108bn in December 2015 to $3.33tn.

The Shanghai Composite Index was trading around 2700 in the last week of January. The benchmark now trades at its lowest level since December 2014, and has dropped more than 48% from its peak in June. China's main stock benchmark entered a bear-market in December.

Interestingly, Chinese companies have raised twice as much capital in equity markets so far this year as those in the US and Europe combined — even as a plunge in mainland markets has triggered turmoil around the world. Companies have raised $19.7bn in China this year largely via follow-on offerings.

China's working age population saw its biggest decline in 2015, underscoring demographers' warnings of an oncoming labour shortage in the country. The number of workers aged 16 to 59 dropped by a record 4.87 million to 911 million last year, compared to decline of 3.71 million in 2014, according to China's National Bureau of Statistics. The trend coincides with China's slowing economic growth, mirroring Japan's experience in the 1990s. The decline has sparked concern that China may be poised to repeat its neighbour's history of economic struggles and that China may grow older before it grows richer. The one-child policy era would weigh on growth prospects.

Korea: Composite Index



U.S. businesses in China are voicing increased concern about unclear laws. According to an annual survey of members of the American Chamber of Commerce one in 10 companies plan to move or have moved a portion of their business outside of China due to regulatory obstacles.

	13	14	15	16	17
GDP (%p.a.)	7.7	7.4	6.3	6.0	6.0
Inflation (%p.a.)	3.5	2.0	1.4	1.5	2.0
Trade Balance(US$ bill.)	260	382	550	420	400
Rmb/$(nom.)	6.2	6.2	6.4	6.7	6.8

South Korea

For the full year, South Korea's GDP rose 2.6%, compared to a rise of 3.3% in 2014, posting its slowest gain since 2012, mainly on poor exports and agriculture. It was estimated that the economy would grow 2.7% in 2015. South Korea's economic growth slowed by more than half in the fourth quarter from the third quarter of 2015. The government has impressed on ministers to spend their budget allocations in a timely manner to keep recovery momentum alive.

The BoK has already revised its growth estimate for 2016 down to 3%, but it is an ambitious target given the uncertainties surrounding the global economic recovery and the slowdown in China.

South Korea's inflation rate was 0.7% for the whole of 2015. This was well below the recently lowered annual inflation target of 2%. Consumer prices to rise 1.4% this year, compared with its previous expectation for a 1.7% gain.

South Korea's trade surplus hit a record high of more than 90 billion U.S. dollars in 2015 thanks to faster fall in imports than exports. Exports came in at 527.2 billion dollars in 2015, down 7.9% from a year earlier and imports declined at a faster pace of 16.9% in 2015 from a year ago to reach 436.8 billion dollars. The sluggish exports were attributed to various factors, such as the global economic slowdown, low oil prices and falling global trade.

	13	14	15	16	17
GDP (%p.a.)	3.0	3.3	2.6	2.5	2.5
Inflation (%p.a.)	1.3	2.0	0.7	1.8	2.0
Current A/c(US$ bill.)	71.0	80.0	90.0	88.0	88.0
Won/$(nom.)	1100	1080	1180	1220	1240

Taiwan

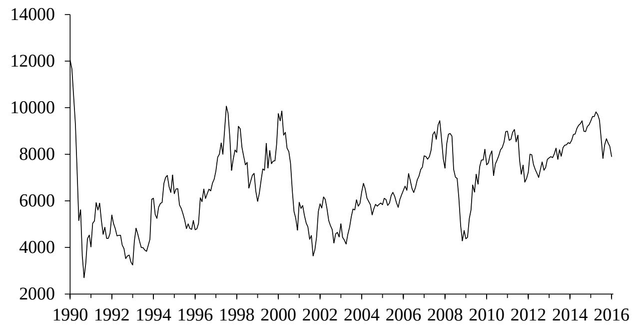
Taiwan Institute of Economic Research (TIER) has revised its forecast for the domestic economic growth for 2016 to 1.57%, down by 0.27 percentage points from its earlier estimate. The economy contracted in the second half of last year and probably a modest recovery is underway, but there are no quick or easy solutions to restoring sustained growth. A huge fall in import prices which should have boosted domestic demand is of no help when its main exporting country — China — is adjusting its economy. Taiwan's economy, however, is likely to improve in the second half of the year if headwinds — oil prices and demand from China — increase.

Taiwan has near zero inflation, a current account surplus running at 12% of GDP and a currency more resilient than most to the rise of the US dollar. But these figure do not translate into GDP growth for this island country which is heavily dependent on trade. In 2015, CPI fell 0.31%, because of big declines in the prices of fuel, electricity and natural gas exceeding increases in the prices of food and services.

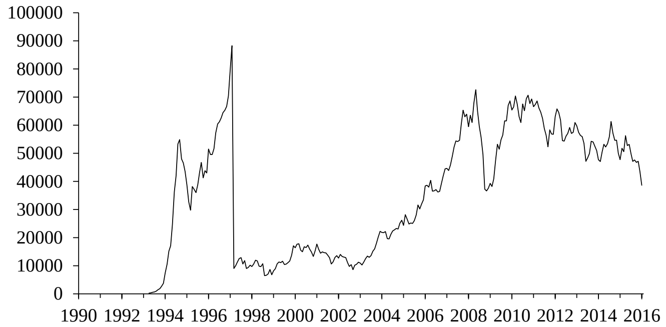
Taiwan dollar could continue to trend lower and fall to the NT$34.5 level against the U.S. dollar on expectations that Taiwan's central bank will further ease monetary policy to boost the economy. Taiwan dollar have been trading to an almost seven-year low against the U.S. dollar at NT$33.802.

Taiwan's political scene has changed completely. In Taiwan's elections, the main opposition Democratic Progressive Party (DPP) won the presidency and a legislative majority. Given the DPP's pro-Taiwan independence stance. If China decides to "punish" Taiwan for its rejection of the "motherland", there may be stagnation of the economy. However, Ms. Tsai Ing-wen is a cautious lawyer who has promised "no surprises" in relations with China. Like the vast majority of Taiwanese, she's in favour of the status quo, which essentially means shelving the whole vexed issue of independence. During Taiwan's sole previous DPP presidency, in 2000–2008, relations with China were often tense and the US had warned Taiwan not to declare independence. Chinese president Xi Jinping has more pressing issues on his mind, like his sinking economy, and so long as Ms. Tsai doesn't agitate openly for independence he will be contained with status quo.

Taiwan: Weighted TAIEX Price Index



Brazil: Bovespa



	13	14	15	16	17
GDP (%p.a.)	2.1	3.7	1.0	1.6	2.0
Inflation (%p.a.)	1.2	1.5	0.0	1.0	1.0
Current A/c(US$ bill.)	50.6	57.4	60.0	64.0	68.0
NT$/$(nom.)	30.0	31.0	32.8	33.0	32.0

Brazil

Recession is hitting hard and people on the street can feel it. The world famous carnival in cities, mostly funded by local governments, are being cancelled. The five day celebration, set for early February this year, will not be held in many cities. With the country stuck in a deep recession, unemployment and inflation rising, Brazilians are in no mood to party.

The economy contracted an estimated 3.7% in 2015 and is forecast to decline by 3% in 2016. The World Bank in particularly concerned about Brazil as she is the worst affected from commodity recession and slowing down in China. It is estimated, from a survey done by the central bank that industrial production contracted by 7.8% in 2015 and would contract an additional 3.5% in 2016.

Brazilian Finance Minister Nelson Barbosa admitted at the World Economic Forum that the grim economic reality was unlikely to change soon, given that oil prices are still well below the $45 dollar per barrel level that state-controlled oil company Petrobras had assumed to see in 2016. However, he insisted that the government was now committed to implementing a radical programme of fiscal reform, coupled with long-delayed infrastructure reforms that are intended to make the economy more competitive.

Brazil’s consumer-price index rose through mid-January, putting the 12-month figure at a steep 10.74% pace despite a sharp economic slowdown. Inflation is likely to hit 7% by year-end, above the target rate of 6.5%. The price increases are widespread. This has left the central bank in a tight spot. With continued pressure from inflation, the central bank is keeping its benchmark Selic interest rate at 14.25% a year, mainly to defend the currency real.

One of the reasons for continued high inflation is large fiscal deficit. The fiscal improvement depends a lot on Congress, which has been hostile to President Dilma Rousseff’s administration since she won re-election in 2014.

The trade figures provided a rare piece of good news in 2015, as the current-account deficit shrank more than expected and foreign direct investment soared. The country had a $58.9 billion current-account deficit in 2015, much narrower than the $90.9 billion deficit recorded in 2014 and better than the $62 billion deficit the central bank had forecast. In 2016, current-account deficit is likely to shrink to $32 billion. The 2015 deficit was fully financed by foreign direct investment, which jumped to $75.1 billion from $62.5 billion in 2014. In 2016, FDI may decline to $55 billion. Good trade figures are the result of a recession-induced 25.3% fall on imports. Brazilian exports also weakened in 2015, but only 15.2% in 2015.

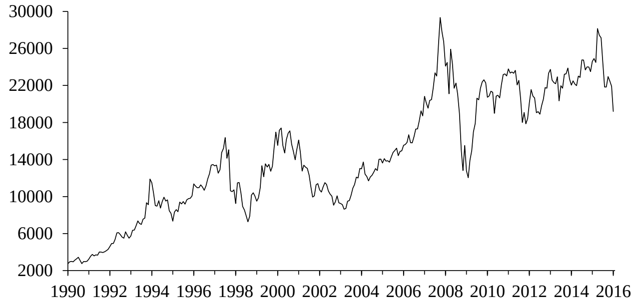
The Brazilian real hit 4.12 to the dollar in mid-January, compared with 2.58 a year ago. The Brazilian real is likely to trade around 4.30 to the dollar during the year, versus 3.96 at last year’s end. A weakening currency is maintaining an upward pressure on prices. The central bank has offered a substantial amount of swaps operations to Brazilian firms so that they can withstand this change in the exchange rate. This gives some hedging options to them.

The Ibovespa stocks index hit 37645, its lowest close since 2009 on January 20 and still sliding.

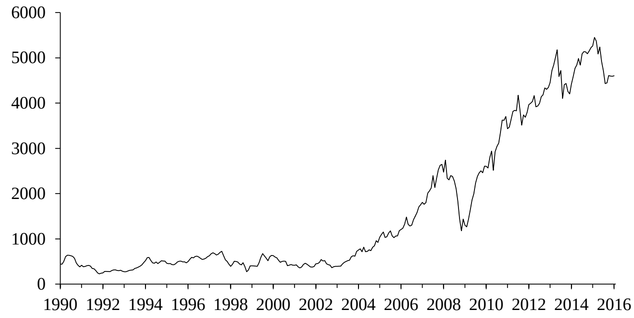
	13	**14**	**15**	**16**	**17**
GDP (%p.a.)	2.5	0.1	-3.7	-3.0	1.2
Inflation (%p.a.)	5.9	6.5	10.3	8.2	6.0
Current A/c(US$ bill.)	-75.0	-104.0	-70.0	-60.0	-50.0
Real/$(nom.)	2.3	2.4	3.9	4.2	4.4

Other Emerging Markets

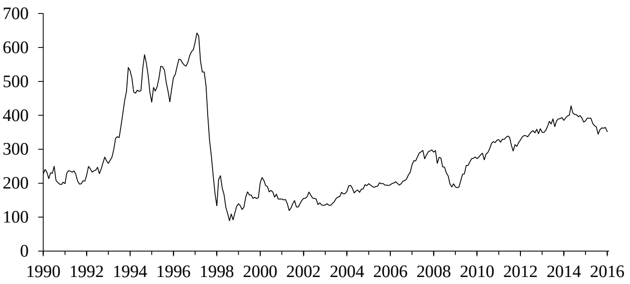
Hong Kong: FT-Actuaries



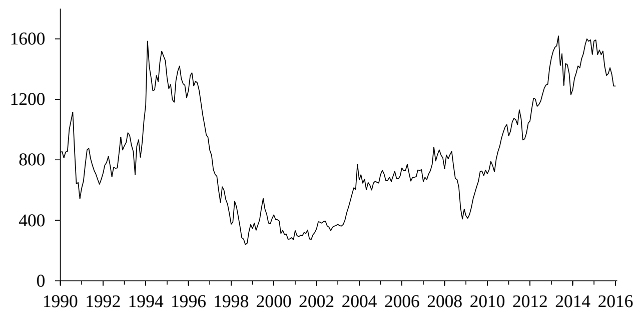
Indonesia: Jakarta Composite



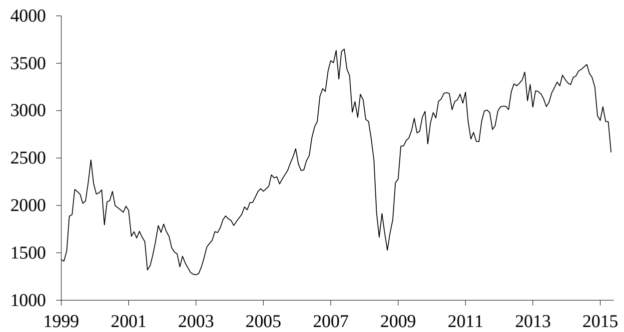
Malaysia: FT-Actuaries
(US$ Index)



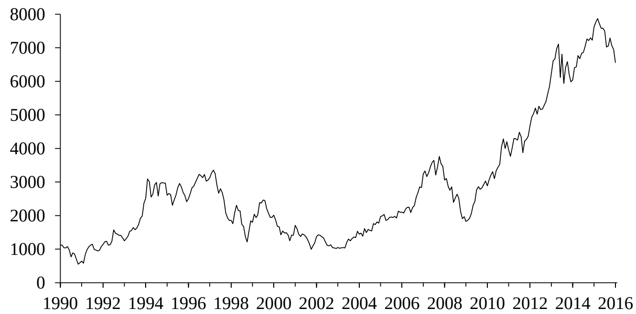
Thailand: Composite Index



Singapore: Straits Times Index

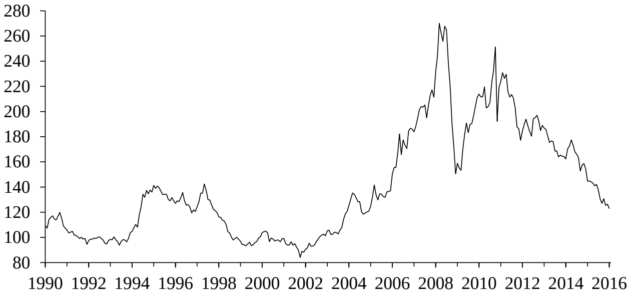


Philippines: Manila Composite

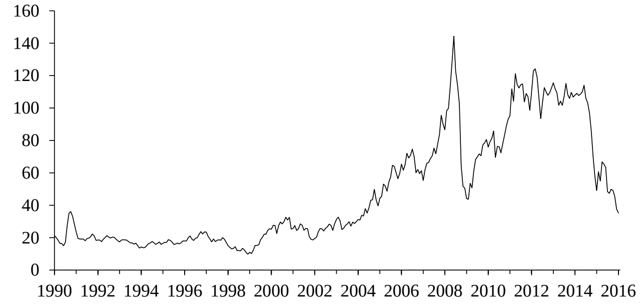


COMMODITY MARKETS

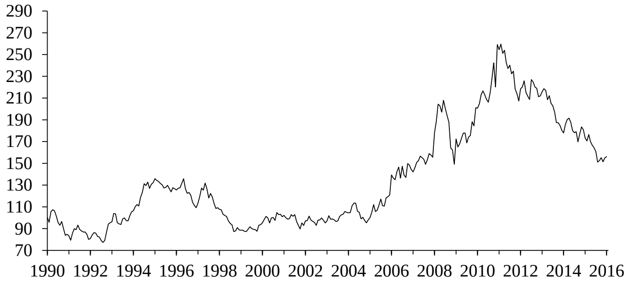
Commodity Price Index (Dollar)
(Economist, 2000=100)



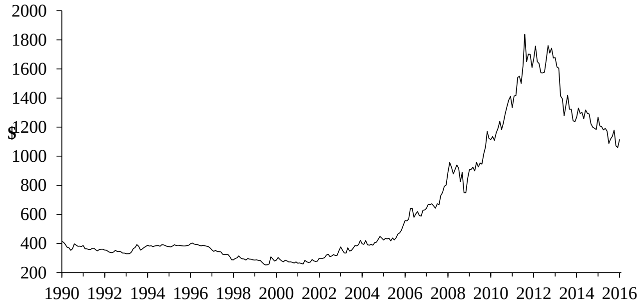
Oil Price: North Sea Brent (in Dollars)



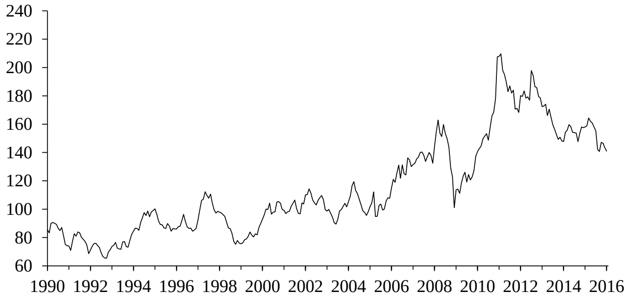
Commodity Price Index (Sterling)
(Economist, 2000=100)



Gold Price (in Dollars)



Commodity Price Index (Euro)
(Economist)



UK FORECAST DETAIL

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

	Inflation %[1] (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100)[2]	Real Exchange Rate[3]	Real 3 Month Int. Rates %[4]	Inflation (RPIX)	Real Short Dated Rate of Interest[5]
2013	2.3	1.3	0.6	81.6	86.5	-1.5	3.1	0.0
2014	1.7	1.8	0.6	87.1	93.1	-0.9	2.4	0.4
2015	0.1	1.4	0.5	91.6	97.6	-0.2	1.0	-0.3
2016	1.1	2.0	0.7	90.4	95.8	-0.9	2.0	0.1
2017	1.6	2.2	1.1	90.5	95.8	-0.9	2.4	0.1
2018	2.0	2.5	1.7	90.1	95.8	-0.2	2.7	0.2
2015:1	0.7	1.1	0.5	89.6	96.1	0.3	1.0	0.8
2015:2	0.2	1.3	0.5	91.5	97.2	0.8	1.0	0.8
2015:3	-0.2	1.4	0.5	93.1	99.0	-0.7	1.0	0.6
2015:4	-0.2	1.8	0.5	92.4	98.2	-1.0	1.0	0.7
2016:1	0.5	2.0	0.5	90.6	95.8	-1.0	1.5	0.7
2016:2	1.0	2.0	0.5	90.2	95.5	-1.0	1.9	0.5
2016:3	1.2	2.1	1.0	90.5	95.8	-0.6	2.1	0.5
2016:4	1.5	2.1	1.0	90.4	95.9	-0.8	2.3	0.4
2017:1	1.5	2.1	1.0	90.8	95.9	-1.0	2.3	0.3
2017:2	1.5	2.1	1.0	90.4	95.7	-1.0	2.3	0.2
2017:3	1.6	2.2	1.0	90.4	95.7	-1.0	2.4	0.2
2017:4	1.8	2.5	1.5	90.4	96.0	-0.5	2.5	0.5

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

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100)[1]	Wage Growth[2]	Unemployment (New Basis) Percent[3]	Millions	Real Wage Rate[4] (1990=100)
2013	238.3	1.0	2.9	1.4	130.6
2014	241.2	1.2	2.3	1.1	130.0
2015	247.6	2.7	2.4	0.9	133.3
2016	255.4	3.2	2.1	0.8	136.1
2017	262.7	2.9	2.0	0.8	137.8
2018	270.6	3.0	1.9	0.7	139.2
2015:1	246.4	2.3	2.5	0.9	132.9
2015:2	246.1	2.6	2.5	0.9	132.7
2015:3	248.3	3.0	2.4	0.9	133.6
2015:4	249.7	2.7	2.1	0.9	134.0
2016:1	254.6	3.3	2.1	0.8	136.6
2016:2	253.2	2.9	2.1	0.8	135.1
2016:3	254.7	2.6	2.1	0.8	135.5
2016:4	259.2	3.8	2.1	0.8	137.0
2017:1	260.6	2.4	2.1	0.8	137.8
2017:2	261.1	3.1	2.0	0.8	137.3
2017:3	262.2	2.9	2.0	0.8	137.3
2017:4	266.8	2.9	1.9	0.8	138.6

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

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

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption[2]	Private Sector Gross Investment Expenditure[3]	Public Authority Expenditure[4]	Net Exports[5]	AFC
2013	149.7	717014.8	424158.3	274075.1	189359.0	-46401.9	124175.7
2014	154.0	737470.2	428418.9	293309.7	194498.6	-51038.0	127719.1
2015	157.4	753768.9	436595.2	298648.1	197430.6	-54148.4	124756.6
2016	161.2	771980.8	447600.9	302512.1	197878.0	-48314.0	127695.1
2017	165.0	790171.4	458510.3	306981.0	201835.6	-46226.0	130928.4
2018	168.9	809077.5	469801.9	313292.3	205872.3	-45585.8	134304.8
2013/12	1.7		0.8	6.9	-0.8		6.5
2014/13	2.9		1.2	9.2	2.1		6.0
2015/14	2.2		2.2	3.8	1.3		3.6
2016/15	2.4		2.3	2.7	2.5		2.8
2017/16	2.4		2.4	2.2	2.0		2.6
2018/17	2.4		2.5	2.2	2.0		2.6
2015:1	156.2	186964.7	107966.1	77826.4	50385.0	-15573.3	33639.5
2015:2	157.0	187977.5	108889.7	70313.2	48635.4	-11413.2	28447.6
2015:3	157.7	188823.0	109697.1	74552.3	49279.4	-14082.0	30623.8
2015:4	158.7	190003.6	110042.3	75956.1	49130.9	-13080.0	32045.6
2016:1	159.8	191281.0	110866.2	73382.3	51059.5	-12075.9	31951.0
2016:2	160.9	192606.7	111552.7	76448.3	48262.0	-12079.2	31576.9
2016:3	161.3	193076.6	112243.5	75672.2	49051.9	-12079.8	31810.9
2016:4	162.9	195016.5	112938.5	77009.3	49504.7	-12079.0	32356.4
2017:1	163.8	196078.6	113610.1	74981.4	52080.7	-12076.4	32516.8
2017:2	164.6	197004.6	114285.7	78094.7	49227.3	-12000.1	32602.9
2017:3	165.4	198074.1	114965.4	76956.2	50032.9	-11076.7	32803.6
2017:4	166.2	199014.1	115649.0	76948.6	50494.7	-11072.8	33005.1

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

Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2013	6.1	1553.4	94.9	47.5	-84.2
2014	5.2	1619.9	83.3	52.6	-99.9
2015	4.6	1641.6	74.6	55.2	-91.0
2016	3.5	1720.8	59.5	58.1	-79.8
2017	2.9	1793.0	51.2	61.3	-76.2
2018	1.7	1873.1	31.3	65.7	-75.7
2015:1	0.6	409.1	2.3	13.3	-25.1
2015:2	6.5	401.7	26.2	13.6	-18.9
2015:3	4.1	407.8	16.9	13.8	-18.9
2015:4	6.5	414.0	26.8	13.9	-28.1
2016:1	1.1	418.2	4.8	13.9	-17.9
2016:2	5.3	424.6	22.4	14.0	-20.0
2016:3	3.5	427.3	15.0	14.6	-15.2
2016:4	4.2	434.3	18.4	14.8	-26.8
2017:1	0.8	434.6	3.7	14.8	-18.0
2017:2	3.7	442.2	16.2	14.9	-19.9
2017:3	1.6	445.4	7.1	15.0	-13.3
2017:4	5.6	450.9	25.3	15.7	-25.1

1 GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2011	2012	2013	2014	2015	2016
U.S.A.	1.6	2.3	2.2	2.3	2.5	2.5
U.K.	1.6	0.7	1.7	2.9	2.2	2.4
Japan	–0.4	1.7	1.6	0.3	0.6	1.2
Germany	3.6	0.4	0.1	1.4	1.7	1.8
France	2.1	0.4	0.4	0.4	1.1	1.4
Italy	0.6	–2.3	–1.9	–0.3	0.8	1.3

Real Short-Term Interest Rates

	2011	2012	2013	2014	2015	2016
U.S.A.	–1.5	–1.5	–1.5	–1.6	–1.1	–0.5
U.K.	–2.4	–1.1	–1.5	–0.9	–0.2	–0.9
Japan	–0.9	–1.3	–1.6	–1.6	–0.5	–0.5
Germany	0.1	–0.7	–1.2	–1.4	–1.4	–1.5
France	0.6	0.0	–0.6	–0.9	–0.8	–1.0
Italy	0.4	0.0	–0.6	0.0	–0.7	–1.0

Real Long-Term Interest Rates

	2011	2012	2013	2014	2015	2016
U.S.A.	0.0	–0.1	1.1	0.3	0.2	0.8
U.K.	0.2	–0.8	0.0	0.4	–0.3	0.1
Japan	–0.8	–1.1	–1.3	–1.6	–1.6	–1.5
Germany	0.0	–0.3	–0.9	–1.4	–1.7	–1.4
France	0.2	–0.1	–0.7	–1.3	–1.6	–1.4
Italy	0.1	–0.2	–0.7	–1.3	–1.6	–1.4

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

	2011	2012	2013	2014	2015	2016
U.S.A.	79.8	81.6	82.1	83.0	83.2	83.0
U.K.	88.7	92.4	81.6	87.8	91.9	89.4
Japan	80.6	79.6	63.5	61.1	60.7	60.4
Germany	100.1	96.7	99.0	100.5	100.2	100.5
France	102.9	99.5	100.7	101.7	101.4	101.7
Italy	107.2	105.2	106.9	107.8	107.0	107.3

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

Growth Of Consumer Prices

	2011	2012	2013	2014	2015	2016
U.S.A.	3.1	2.1	1.5	1.7	0.2	1.7
U.K.	3.5	2.1	2.3	1.7	0.1	1.1
Japan	–0.3	0.0	0.4	2.8	0.8	0.7
Germany	2.1	2.0	1.5	1.0	0.3	1.3
France	2.1	2.0	0.9	0.6	0.1	0.9
Italy	2.8	3.0	1.2	0.2	0.1	0.8

Nominal Short-Term Interest Rates

	2011	2012	2013	2014	2015	2016
U.S.A.	0.1	0.1	0.1	0.1	0.6	1.5
U.K.	0.9	0.9	0.6	0.6	0.5	0.7
Japan	0.2	0.2	0.2	0.1	0.2	0.2
Germany	1.4	0.6	0.2	0.2	0.1	–0.1
France	1.4	0.6	0.2	0.2	0.1	–0.1
Italy	1.4	0.6	0.2	0.2	0.1	–0.1

Nominal Long-Term Interest Rates

	2011	2012	2013	2014	2015	2016
U.S.A.	1.9	1.8	3.0	2.2	2.2	2.8
U.K.	2.0	0.9	1.3	1.8	1.4	2.0
Japan	1.0	0.8	0.7	0.3	0.4	0.5
Germany	1.8	1.5	1.0	0.5	0.3	0.6
France	1.8	1.5	1.0	0.5	0.3	0.6
Italy	1.8	1.5	1.0	0.5	0.3	0.6

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

	2011	2012	2013	2014	2015	2016
U.S.A.[1]	78.08	80.90	86.00	89.40	100.50	100.00
U.K.	1.61	1.59	1.55	1.65	1.53	1.50
Japan	79.36	80.51	98.20	106.70	120.00	120.50
Eurozone	0.71	0.78	0.75	0.76	0.90	0.91

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

* Forecasts based on the Liverpool World Model