

India: A fiscal horror show?

Previewing the 2012/13 budget

Economics Contributors

Robert Prior-Wandesforde
 +65 6212 3707
robert.priorwandesforde@credit-suisse.com

Santitam Sathirathai
 +65 6212 5675
santitam.sathirathai@credit-suisse.com

Strategy Contributor

Ashish Agrawal
 +65 6212 3405
ashish.agrawal@credit-suisse.com

First, the good news. Contrary to the belief of many, India is a long way from experiencing the kind of fiscal horror show that has engulfed many developed world countries in recent times. While the country's (central and state) budget deficit is running at around 8% of GDP, similar to that of many western countries, India has the huge advantage of double-digit money GDP growth. With bond yields pegged back by captive buyers, in the form of the commercial banks, this means general government debt is falling rather than rising as a share of GDP in India.

But this is not to say that the Finance Ministry can relax and kick back ahead of the budget. The Reserve Bank of India, for one, will be looking for some tough measures to be delivered, while a lower budget deficit would help reduce the current account deficit and the 'crowding out' of private investment.

Budget measures. As such, we believe Finance Minister Pranab Mukherjee is likely to announce an increase in the breadth of the services tax and, possibly, a rise in the excise and services tax rate itself, as well as an increase in subsidised fuel prices on 16 March. He may also set out a medium-term fiscal consolidation plan, involving further details concerning the introduction of the Direct Tax Code (DCT) and Goods and Services Tax (GST), both of which have been delayed. The finance minister will, however, do well to convince stakeholders of the credibility of such a program, in our view.

Fiscal forecasts. Put such measures together with a roughly 8% real GDP growth forecast as well as an upbeat assessment of divestment and telecom spectrum receipts and we suspect Mukherjee will forecast a 5% of GDP central government deficit in 2012/13, down from a revised 5.6% in 2011/12.

RBI likely to cut rates in mid-March and beyond. Although we doubt such a figure will be achieved (we forecast a 5.8% outturn in 2012/13), we suspect the budget will deliver just about enough to start the repo rate cutting ball rolling at the 15 March RBI meeting. It seems inconceivable that the contents of the budget will not have been presented to the central bank by the time of its meeting. A further big upward move in the oil price is the main risk to this view.

We continue to look for a total of 175bps of repo rate reductions by early-2013. With wholesale price inflation falling a little further and staying in the comfort zone through 2012 and the economy experiencing a further protracted period of sub-trend real GDP growth, the RBI is likely to take back some of the 500bps in effective tightening it delivered during 2010-11.

We expect the curve to bull steepen and 10y bond yields to fall below 8% in 3 months and trade to 7.5% by end 2012. The easing cycle and expectations of some moderation of the significant liquidity deficit should support bonds. We do not expect much market reaction from the FY13 borrowing total, INR4.1tn net, as markets will likely be focused on RBI's policy rate actions and guidance coupled with the outlook for liquidity conditions.

Four questions

That India's fiscal position leaves a lot to be desired is clear. But four questions still arise:

1. Is the country heading towards a 'fiscal horror show' of the sort we have become increasingly accustomed to in the developed world over recent times?
2. What, if anything, is the government likely to do to address the issue in its 16 March budget?
3. To what extent will the answer to the second question influence what the Reserve Bank of India does on interest rates this year?
4. How much in the way of bond issuance should we expect in 2012/13 and what are the likely implications for the market?

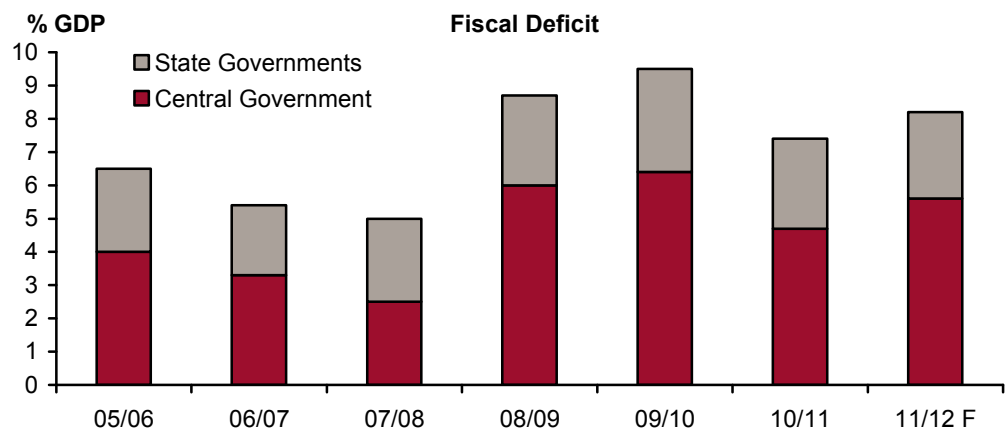
In our view, the answers to these issues will go a long way to determining the performance of India's financial markets over coming months. We will address each in turn.

1. How bad is bad?

Historical and international comparisons

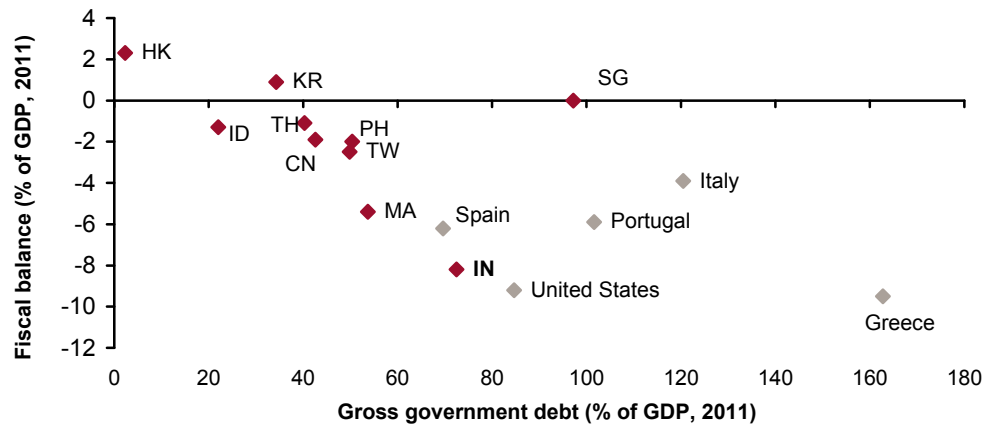
Exhibit 1 tracks the development of India's general government fiscal deficit, showing the contribution from the central and state governments, while Exhibit 2 puts our 2011/12 deficit and debt projections (8.2% and 65% of GDP respectively) into some sort of international perspective. The (relatively) good news here is that India's public finances are in better shape than those of the US, as well as of many of the euro zone nations. But clearly this is not saying a lot. The fact is that all other Asian countries we cover, barring Japan, have a lower budget deficit than India, while only Singapore (for purely technical reasons) has a larger debt/GDP ratio. As is well known, India's comparatively high deficit mainly reflects its narrow revenue base. On the basis of IMF data, Indian general government revenues amounted to 18.5% of GDP last year, whereas they averaged 26% in all Emerging Markets. The equivalent figures for government spending were 26.5% and 28.5% of GDP respectively.

Exhibit 1: India's budget deficit often in the high single digits (as % of GDP)



Source: Credit Suisse estimates, CEIC, IMF

Exhibit 2: India's budget deficit and debt are the highest in Asia (ex. Japan)



Source: Credit Suisse, CEIC

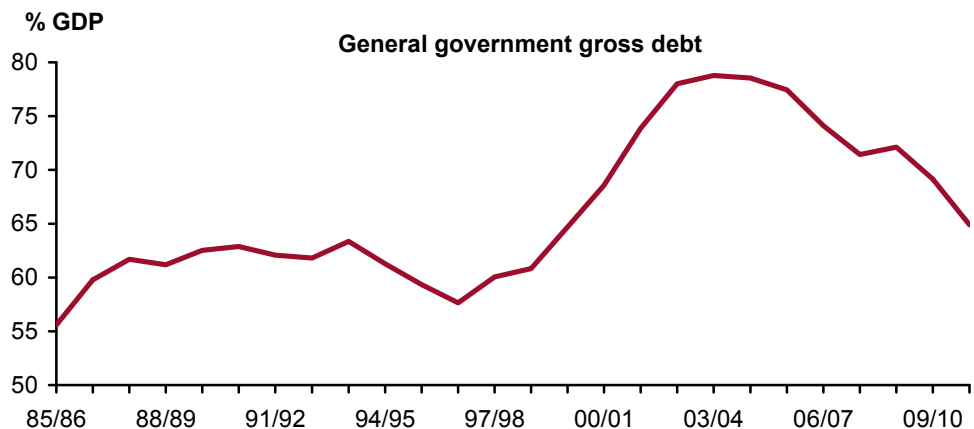
Is India's debt sustainable?

In practice, however, this tells us nothing about the sustainability or otherwise of the Indian government's debt position. After all, a given level of the budget deficit may be consistent with a stable or falling debt/GDP ratio in one country and a rising one in another. The formula to calculate the so-called Debt Stabilising Primary Surplus (DSPS)¹ is as follows:

$$DSPS = (nominal\ interest\ rate\ on\ government\ debt - nominal\ GDP\ growth) * Debt/GDP\ ratio$$

In India's case, this works out to be roughly -6.5% of GDP in 2011/12 ((8-18)*0.65), which is comfortably below the IMF's estimate of the country's primary deficit of 3.6% of GDP². What saves the country is the fact that its nominal GDP growth is much higher than the interest rate paid on government debt – something that is not true of many countries in the developed world right now but which has been the case in India for many years. This in turn helps explain the trend decline in the government's debt/GDP ratio since the early 2000s (Exhibit 3).

Exhibit 3: Government debt/GDP ratio has been falling for 8 years now



Source: Credit Suisse, MOF

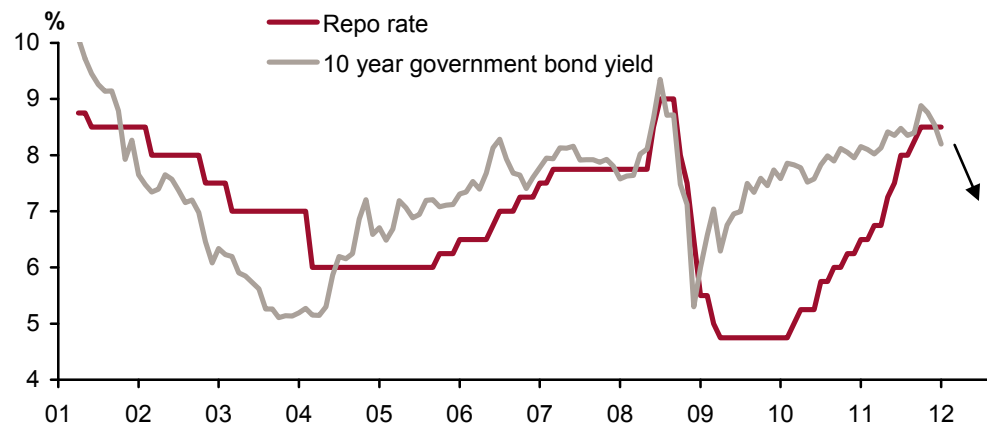
¹ Primary budget balance is the total budget balance minus debt interest payments.

² The 18% money GDP growth assumption is the official estimate from the Indian Statistics office for 2011/12.

Of course, if India's debt interest rate costs were to rise sharply and/or nominal GDP growth to slow, then a much smaller primary deficit (or even a surplus) would be required to keep the debt ratio stable, let alone bring it down. But big adverse moves in either series seem unlikely, in the short term at least, for several reasons.

- Having already lowered the Cash Reserve Ratio, the Reserve Bank of India has made it clear that the next move in the repo rate is down. History suggests this will keep a firm lid on bond yields even in the context of rising sovereign issuance.

Exhibit 4: Policy rate cuts likely to keep a lid on government bond yields



Source: Credit Suisse, CEIC

- On a more structural basis, the government has a large captive audience for its bonds in the form of commercial banks which are obliged to spend 24% of their deposits on government bonds (the so-called Statutory Liquidity Requirement or SLR). High personal savings (around 25% of GDP) also help in this regard.
- India's nominal GDP growth has not been lower than 12% since 2003. The move up in trend real GDP growth over the last decade combined with the country's structurally high inflation rate has ensured that this is the case. At the same time, bond yields are towards the top end of their trading range of the last decade.

Apart from the interest rate-growth differential, the IMF has also identified a range of other indicators which, in the past, have provided useful early warning signals about extreme government funding problems or spikes in sovereign bond spreads. These are shown in Exhibit 5 below, where we have compared the relevant numbers for India (in 2011, unless otherwise stated) with those of the other BRIC nations. All the figures are sourced from the IMF itself.

Exhibit 5: Assessing India's relative budgetary strengths and weaknesses

% of GDP	Government debt	Gross financing need	Short-term gov. debt*	Cyc. adj. primary balance**	Public pension spending***	Public health spending***
Brazil	65	19	35	-3.0	1.3	1.6
Russia	12	2.2	11	-0.2	4.6	1.1
India	65	11	4.4	-4.0	0.4	0.4
China	27	7.7	46	-0.9	0.2	0.8

*As a proportion of total government debt. **Primary balance taking account of cyclical factors, IMF forecasts for 2012. ***Projected change (as a % of GDP) between 2010 and 2030.
Source: IMF

The results are mixed for India. While it scores relatively poorly in terms of debt and the cyclically adjustment primary balance, it does 'better' on pension and health spending as well as the importance of short-term debt. Overall, India's fiscal position is probably best described as bad but not that bad.

The wider benefits of deficit reduction

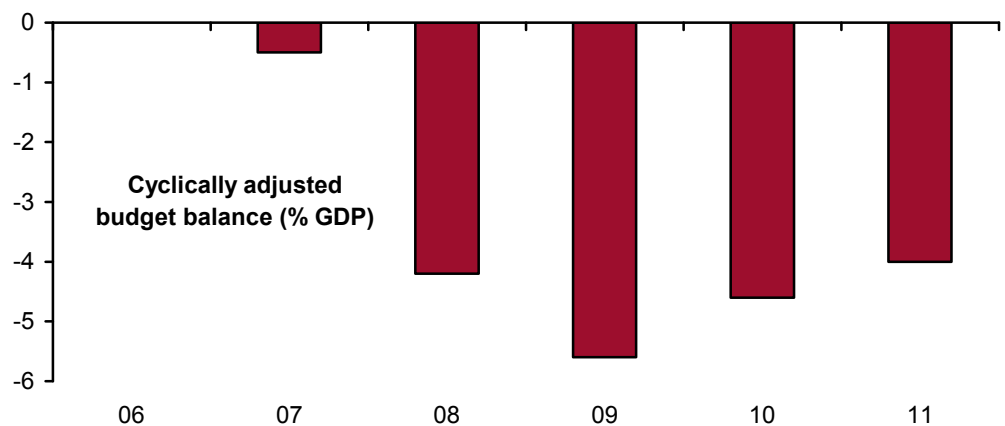
While India's debt position is a long way from an unsustainable/explosive path, this is not to suggest that the government can safely rest on its laurels. Apart from the fact that the interest rate/growth differential is unlikely to remain so favourable over the long term, if the fiscal authorities were to bring down the budget deficit on a structural basis, a number of economic benefits should ensue. First, less in the way of private investment is likely to be 'crowded out'; second, it should help bring down the current account deficit; third, it may have some dampening effects on domestically generated inflationary pressures; finally, it would make it easier for the RBI to cut interest rates.

2. What will the government do on 16 March?

A bit of background

Before discussing the likely make-up of the central government's 2012/13 budget it is worth providing a little bit more context in the form of Exhibit 6. This shows how, according to IMF estimates, India's Cyclically Adjusted Primary Balance (CAFB – the best indicator of the underlying course of fiscal policy, stripping out the impact of the economic cycle and debt interest costs on the public finances) has developed over recent years. Having been zero in 2006, the CAFB ballooned in 2008 and 2009 as the government introduced new welfare schemes and eased fiscal policy aggressively in reaction to the global financial crisis. In the following two years, only a small part of this stimulus has been taken back. Partly as result, the overall central government budget deficit appears all but certain to overshoot the official target of 4.6% of GDP in 2011/12. Our own forecast remains at 5.6% of GDP, with the risks tilted modestly to the upside.

Exhibit 6: Indian government eased fiscal policy aggressively in 2008 and 2009



Source: IMF, Credit Suisse

With this in mind, and given our earlier remarks concerning the potential benefits of reducing the deficit, there would appear to be a strong case for tightening the fiscal stance in the upcoming budget. In practice, however, it is not quite as simple as this. The weakness of GDP growth and the strength of inflation over the last couple of years mean there is no shortage of pressure, both within and outside the Congress-led coalition, to provide some help to poorer members of society.

The budget announcement – our expectations

As such, we expect the budget announcement on 16 March to encompass many of the following:

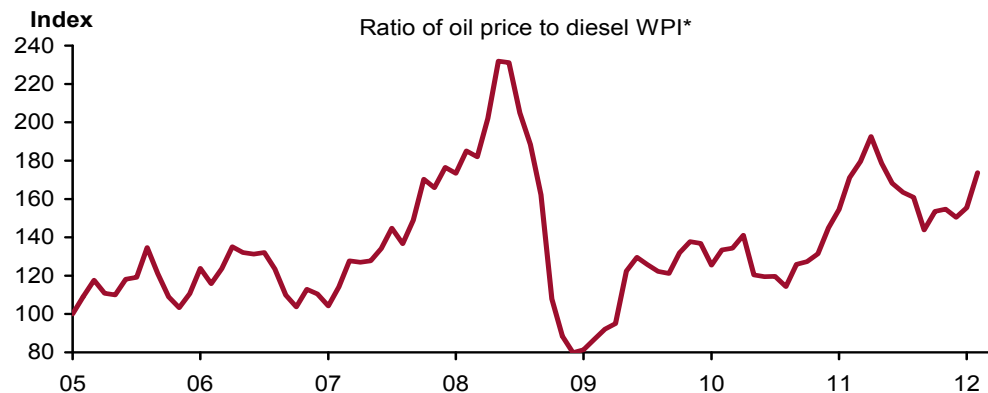
Budget assumptions

- Finance Minister Pranab Mukherjee is likely to raise his estimate of the central government budget deficit in 2011/12 from the current 4.6% of GDP to something in the range of 5.5-6.0%.
- We expect him to forecast a reduction in the budget deficit to 4.8-5.3% of GDP for the fiscal year 2012/13. This will probably be based on a real GDP growth assumption in the order of 8%, with the WPI set at 5.5-6%. Our own growth projection, as well as that of the consensus, is 7.3%, while we expect the WPI rate to average 5.8% in 2012/13 (the consensus is at 6.6%), ending the fiscal year at 6%.
- The budget will no doubt include upbeat assumptions concerning proceeds from the government's divestment program and the sale of telecom spectrum. We are expecting it to announce a target of about INR500bn in privatisation receipts and INR650bn in spectrum (1.2% of GDP in total). During the current fiscal year, the government has raised little more than INR11bn from divestments, which compares with a target of INR400bn this time last year. Having said that, stronger market conditions suggest that it should fare a lot better in 2012/13.

Tightening measures, Direct Tax Code and GST

- We expect the finance minister to unveil several tightening measures. In our view, these will include an increase in the breadth of the service tax as well as a rise in the excise and service tax rate from 10% to 11% (it was lowered from 12% in response to the global financial crisis).
- Given the recent spike in the oil price and the implications this will have for the government's subsidy bill (we estimate that a 10% oil price increase typically adds 0.2% of GDP to the fiscal deficit), then a further increase in subsidised fuel prices, including diesel, kerosene and LPG, is probable. Exhibit 7 shows how the oil price has once again been rising relative to the regulated diesel price (as measured by the diesel price index in the India's wholesale price series) in recent times.

Exhibit 7: Time for another subsidised fuel price hike



*Indexed to 100 at January 2005.
Source: Credit Suisse, CEIC

- The finance minister will probably set out some sort of medium-term fiscal consolidation program, although the risk is that it will lack credibility. Hopefully, it will at least encompass more details concerning the introduction of the Direct Tax Code (DTC) as well as the Goods and Service Tax (GST). The latter has already been pushed back a couple of times, while the DTC is still being scrutinised by the parliamentary standing committee (it was originally due to be implemented from the start of the 2012/13 fiscal year). Both schemes are intended to be revenue neutral, but there are legitimate hopes that by simplifying the tax collection process, significant efficiency gains will be achieved.

Income tax adjustment, the food security bill and structural issues

- In order to help compensate people for the high level of inflation, we expect the tax exemption limit to be raised by roughly 11% (INR20,000) to INR200,000. To what extent, if at all, the tax slabs are raised, is a more difficult call. On balance, we are looking for at least a modest increase.
- It seems unlikely that Mukherjee will allocate much in the way of funding for the Food Security Bill, which is due to be rolled out by November 2012, having been considered by a parliamentary standing committee (delays to this timetable are of course possible). As a reminder, the Bill is designed to provide subsidised food grains to 75% of the rural population and 50% of the urban population. A minimum of 46% of the rural population and 28% of the urban population are meant to get 7kg of food grains per person per month. The total cost of the Bill, when fully implemented, is estimated to be INR1,120bn (about 1% of 2012/13 GDP) – enough to put a big dent in the public finances. The finance minister will need to explain how he intends to finance this.
- We would be surprised if any 'market-friendly' structural economic reforms were to be announced in the budget. Although notionally the government has only "postponed" the plan to allow single-brand foreign retailers entry to the domestic market, our guess is that it will prove a long delay.

Taking all this into account and building in our own, more pessimistic, economic growth forecasts, we expect the central government budget deficit to come in at 5.8% of GDP in 2012/13 (8.3% for the general government). This is actually a slight reduction from our previous 6% forecast, reflecting a more optimistic assumption about divestment and telecom spectrum receipts, but very similar to the probable outcome for 2011/12. We believe a further period of sub-par economic growth will continue to keep a firm lid on revenues, while the funding of the Food Security Bill, assuming it begins during the 2012/13 fiscal year, will put upward pressure on the deficit as well.

3. Assessing the RBI's reaction

If our expectations of what will be unveiled in the budget are roughly right, how is the Reserve Bank of India likely to react?

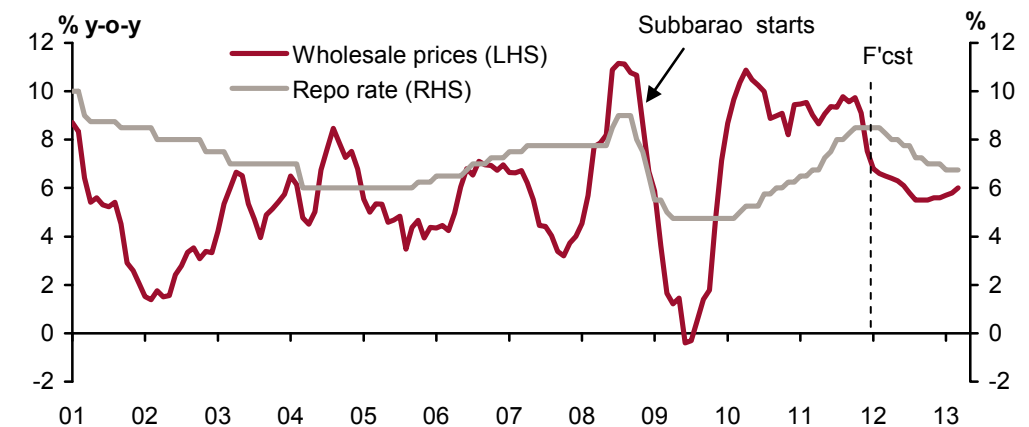
In his statement of 24 January, following the central bank's monetary policy meeting, Governor Subbarao argued that "there is an urgent need for decisive fiscal consolidation ... This is critical to yielding the space required for lowering rates without the imminent risk of resurgent inflation. The forthcoming Union Budget must exploit the opportunity to begin this process in a credible and sustainable way".

No doubt, there was a sizeable element of 'jaw-boning' involved here, but, even so, it is clear that the RBI will be paying attention to the contents of the budget when it decides whether or not to lower rates on 15 March (it is highly probable that the budget will have been presented to the central bank by the time of its next meeting). In our judgment, while the RBI would ideally want to see a more aggressive tightening of the underlying fiscal stance than is likely to be delivered, the budget will do just about enough to start the rate cutting ball rolling.

We are looking for a total of 175bps of repo rate reductions between March this year and January 2013, bringing the rate down to 6.75% from its current 8.5% level. Although this may sound aggressive (and, as far as we are aware, is more than any other market commentators are looking for), it is worth noting that the RBI effectively tightened policy by 500bps during 2010-11, while the long-term average for the repo rate is 7.0%.

Key to our projection is what happens to WPI inflation, the importance of which is illustrated in Exhibit 8. This suggests that since Dr. Subbarao took charge of the central bank in September 2008, the repo rate has effectively become a lagging function of wholesale price developments. Prior to his governorship, and contrary to conventional wisdom, there was no obvious relationship between the two series whatsoever.

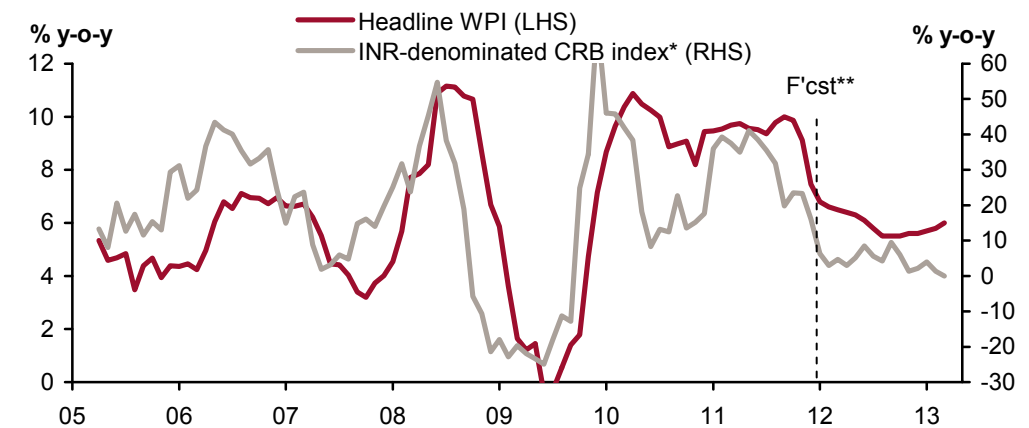
Exhibit 8: We are looking for 175bps of repo rate cuts by January 2013



Source: Credit Suisse estimates, CEIC

In our view, wholesale price inflation will edge lower in the next few months (we are looking for it to fall to less than 6% by April/May from 6.6% in January), based largely on the fact that the year-on-year change in the rupee-denominated CRB index has already dropped from 40% close to zero. As Exhibit 9 shows, this series typically provides a lead of three to four months to WPI inflation.

Exhibit 9: WPI inflation likely to fall a little further before stabilising



*Simple average of CRB food and metals inflation as well as Brent oil price inflation. **Assumes level of INR denominated CRB index is unchanged.
Source: Credit Suisse estimates, the BLOOMBERG PROFESSIONAL™ service, CEIC

In order to gauge what may happen thereafter, we have extended the grey line in the chart on the basis that oil, food and metal prices remain at their current levels (USD125/barrel in the case of the first of these). Many argue that WPI inflation will move up from the June quarter reflecting adverse base effects, but for this to happen we believe the rupee would need to depreciate precipitately and/or commodity prices rise sharply. Neither is part of our central scenario.

Apart from WPI inflation, economic growth is presumably of some relevance to the RBI as well. While the March quarter of 2012 is likely to represent the bottom of the GDP growth cycle, we doubt year-on-year growth will exceed 7% until the December quarter of the year and 8% until the September quarter of 2013. The Reserve Bank used to peg the trend rate of economic growth at 8-8.5%, although it may have cut this recently. In our view, the sustainable growth rate has been and remains at around 7.5%.

Bond issuance and market implications

We expect the government to announce a net market borrowing number in the vicinity of INR4.1tn (gross INR5tn) for FY13. This would be marginally lower than the INR4.2tn (net) for FY12, which was much higher than the FY12 budgeted numbers given the INR928.7bn slippage. We do not expect much market reaction from the borrowing details as markets will likely be focused on RBI's policy rate actions and guidance (15 March) coupled with the outlook for liquidity conditions.

The start of the easing cycle and expectations of some moderation of the significant liquidity deficit should support bonds. We expect the bond curve to bull steepen to reflect lower front end rates. The benchmark 10y bond is trading at very tight spreads to the front end and also commands a sizeable liquidity premium. Foreign investor and RBI purchases have been a big support for the market in recent months and these positives will likely fade with the start of the new fiscal year. The large bond redemptions in April and May will provide some support in the near term, but sustained supply will likely keep the overall move in long bonds muted despite the expected RBI rate cuts. We expect the 10y bond yield to fall below 8% in three months and trade towards 7.5% by end 2012 if global commodity prices are well behaved and inflation trends remain benign.

Exhibit 10: Market borrowing trends

Amounts in INR bn

	Gross	Net
FY10	4,510	3,984
FY11	4,370	3,254
YTD (17 February 2012)	4,740	4,004
FY12	4,980	4,244
FY13 estimates	5,019	4,113

Source: Credit Suisse estimates, RBI

EMERGING MARKETS ECONOMICS AND FIXED INCOME STRATEGY

Kasper Bartholdy
 Head of Strategy and Economics
 +44 20 7883 4907
 kasper.bartholdy@credit-suisse.com

Eric Miller, Managing Director
 Global Head of Fixed Income and Economic Research
 +1 212 538 6480
 eric.miller.3@credit-suisse.com

LATIN AMERICA ECONOMICS

Alonso Cervera

Head of Non-Brazil
 Latin America Economics
 +52 55 5283 3845
 alonso.cervera@credit-suisse.com
 Mexico, Chile

Carola Sandy

+1 212 325 2471
 carola.sandy@credit-suisse.com
 Argentina, Peru, Colombia

Casey Reckman

+1 212 325 5570
 casey.reckman@credit-suisse.com
 Chile, Venezuela, Panama

Nilson Teixeira

Head of Brazil Economics
 +55 11 3841 6288
 nilson.teixeira@credit-suisse.com

Iana Ferrao

+55 11 3841 6345
 iana.ferrao@credit-suisse.com
 Brazil

Leonardo Fonseca

+55 11 3841 6348
 leonardo.fonseca@credit-suisse.com
 Brazil

Daniel Lavarda

+55 11 3841 6352
 daniel.lavarda@credit-suisse.com
 Brazil

Tales Rabelo

+55 11 3841 6353
 tales.rabelo@credit-suisse.com
 Brazil

EASTERN EUROPE, MIDDLE EAST & AFRICA ECONOMICS

Berna Bayazitoglu

Head of EMEA Economics
 +44 20 7883 3431
 berna.bayazitoglu@credit-suisse.com
 Turkey

Sergei Voloboev

+44 20 7888 3694
 sergei.voloboev@credit-suisse.com
 Russia, Ukraine, Kazakhstan

Carlos Teixeira

+27 11 012 8054
 carlos.teixeira@credit-suisse.com
 South Africa

Gergely Hudecz

+44 20 7883 9589
 gergely.hudecz@credit-suisse.com
 Czech Republic, Hungary, Poland

Alexey Pogorelov

+7 495 967 8772
 alexey.pogorelov@credit-suisse.com
 Russia, Ukraine, Kazakhstan

Natig Mustafayev

+44 20 7888 1065
 natig.mustafayev@credit-suisse.com

NON-JAPAN ASIA ECONOMICS

Dong Tao

Head of Non-Japan Asia Economics
 +852 2101 7469
 dong.tao@credit-suisse.com
 China, Korea

Christiaan Tuntono

+852 2101 7409
 christiaan.tuntono@credit-suisse.com
 Hong Kong, Taiwan

Robert Prior-Wandesforde

+65 6212 3707
 robert.priorwandesforde@credit-suisse.com
 Regional, India, Indonesia

Santitarn Sathirathai

+65 6212 5675
 santitarn.sathirathai@credit-suisse.com
 Philippines, Thailand, Vietnam

Kun Lung Wu

+65 6212 3418
 kunlung.wu@credit-suisse.com
 Malaysia, Singapore

STRATEGY

Igor Arsenin

Head of Latin America Strategy
 +1 212 325 6437
 igor.arsenin@credit-suisse.com

Saad Siddiqui

EMEA Strategy
 +44 20 7888 9464
 saad.siddiqui@credit-suisse.com

Ashish Agrawal

Asia Strategy
 +65 6212 3405
 ashish.agrawal@credit-suisse.com

Daniel Chodos

Latin America Strategy
 +1 212 325 7708
 daniel.chodos@credit-suisse.com

Nimrod Mevorach

EMEA Strategy
 +44 20 7888 1257
 nimrod.mevorach@credit-suisse.com

Chris Balster, CFA

Locus Analytics Specialist
 +1 212 538 5889
 chris.balster@credit-suisse.com

Ray Farris

Chief Asia Strategist
 +65 6212 3412
 ray.farris@credit-suisse.com

Daniel Katzive

FX Strategy
 +1 212 538 2163
 daniel.katzive@credit-suisse.com

Disclosure Appendix

Analyst Certification

Robert Prior-Wandesforde, Santitarn Sathirathai and Ashish Agrawal each certify, with respect to the companies or securities that he or she analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Disclaimer

References in this report to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse AG operating under its investment banking division. For more information on our structure, please use the following link: https://www.credit-suisse.com/who_we_are/en/.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse AG or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates.

The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change.

Information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other reports are brought to the attention of any recipient of this report.

CS may, to the extent permitted by law, participate or invest in financing transactions with the issuer(s) of the securities referred to in this report, perform services for or solicit business from such issuers, and/or have a position or holding, or other material interest, or effect transactions, in such securities or options thereon, or other investments related thereto. In addition, it may make markets in the securities mentioned in the material presented in this report. CS may have, within the last three years, served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investment concerned or a related investment. Additional information is, subject to duties of confidentiality, available on request. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgement at its original date of publication by CS and are subject to change without notice. The price, value and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADR's, the values of which are influenced by currency volatility, effectively assume this risk.

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase.

Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed.

This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk.

This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is regulated in the United Kingdom by The Financial Services Authority ("FSA"). This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States and Canada by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse AG; in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A.; in Mexico by Banco Credit Suisse (México), S.A. (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); in Japan by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director-General of Kanto Local Finance Bureau (*Kinsho*) No. 66, a member of Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Securities Investment Advisers Association, Type II Financial Instruments Firms Association; elsewhere in Asia/ Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse AG, Taipei Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020. This research may not conform to Canadian disclosure requirements.

In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S.

This material is not for distribution to retail clients and is directed exclusively at Credit Suisse's market professional and institutional clients. Recipients who are not market professional or institutional investor clients of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA or in respect of which the protections of the FSA for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report.

CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CS is providing any such services and related information solely on an arm's length basis and not as an advisor or fiduciary to the municipality. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the officials, management, employees or agents thereof) and CS for CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or investment adviser for the purpose of obtaining or retaining an engagement by the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality.

Copyright © 2012 CREDIT SUISSE AG and/or its affiliates. All rights reserved.

Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments.

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay purchase price only.