ESPIRITO SANTO Securities

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Inflation: will stickiness finally subside?

Given the current scenario where the economy faces persistent inflationary pressures, our analysis suggests that inflation should slip below 7% YoY in March 2012. In our base case, the moderation is expected to be driven by a positive base effect, correction in global commodity prices and lagged impact of monetary tightening.

Inflation has been stubbornly high

Unlike several other economies where the policy preference has changed from taming inflation to managing growth, India continues to ardently fight inflation and inflationary expectations. High inflation imposes socio-economic costs, erodes the value of financial assets and intensifies the fiscal problem.

Roots of inflation found in both demand and supply-side

While over time lower volatility in inflation following oil price shocks may seem to have reduced the vulnerability to temporary supply-side fluctuations, India continues to remain a supply constrained economy. Unless there's a gradual shift in policy reforms towards higher productivity, we are moving towards a new higher structural level of food inflation.

One of the leading causes of rising demand-side pressures has been the classic wage price spiral. Rising wages are being manifested in rising demand, which is reflected in a gradual shift in drivers of inflation from food to non-food. The prevalent demand-side pressures have been acute enough to cause structurally higher inflation. An increase in inflation volatility has resulted in higher inflation premiums explaining why inflationary expectations have failed to correct.

Global commodity prices – a key ingredient

The importance of global commodity prices in determining Indian inflation is reflected in the fact that the **correlation between the CRB index and WPI 'core' inflation is seen to be as high as 70%**. Our analysis suggests that the former leads the latter by 2 months and the ongoing moderation in global commodity prices is expected to ease domestic inflation. The impact may be limited by the structural break in favour of higher 'core' inflation in 2009.

Drawing the inflation trajectory

We attempt to draw the WPI inflation trajectory under different scenarios. The positive base effect in Q1 2012 should ensure a significant correction in WPI inflation in any scenario. In our first scenario, where we expect global commodity prices to moderate, our regression analysis suggests that a 1% correction in the CRB index will result in 11 bps fall in WPI inflation. Further, we expect WPI inflation to fall to 4.5% YoY in March 2012 if global commodity prices were to correct by 15%. But after taking into account sustained INR depreciation, the fall in March may be limited to 6% YoY. In the second scenario, we assume a partial increase in administered domestic fuel prices. Inflation for March, in this case, jumps swiftly to 7.9% YoY.

Inflation to slip below 7% YoY in March 2012

In our base case scenario, where we expect food inflation to remain sticky, administered fuel prices to go up and manufacturing inflation to moderate, WPI inflation in March is expected to moderate to 6.8% YoY.

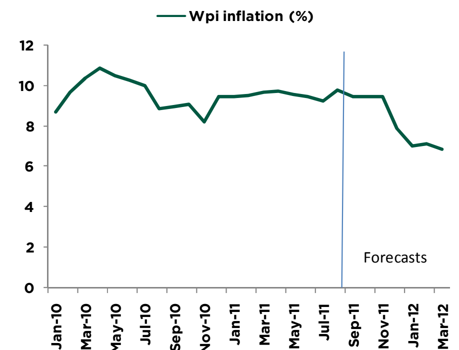
RBI likely to press the 'pause' button

We feel that the RBI will now slip into the wait-and-watch mode as we expect inflation to show signs of peaking out; and both global growth and domestic growth to disappoint further. Rate cuts from the RBI are unlikely to come in the near term as inflation is unlikely to moderate significantly below the RBI's target.

Investment implications

Given that inflation is likely to moderate from current levels of 9.78% towards 6.8% by March 2012, we've tried to highlight the investment implications for a declining inflationary environment. Our analysis suggests Capitals Goods, Metals, Oil and Banks are best placed in a declining inflationary environment (table 1). Power, TMT, Healthcare and IT are worst placed in such an environment.

Figure 1 WPI inflation expected to fall to 6.8% YoY in March 2012



Source: Espirito Santo Securities

Table 1 Sectoral impact of declining inflation

Sectors	Declining Inflation
Capitals	Positive
Metals	Positive
Oil	Positive
Banks	Positive
Auto	Moderate
FMCG	Moderate
Durables	Moderate
Power	Negative
TMT	Negative
Health	Negative
IT	Negative

Source: Bloomberg, Espirito Santo Securities

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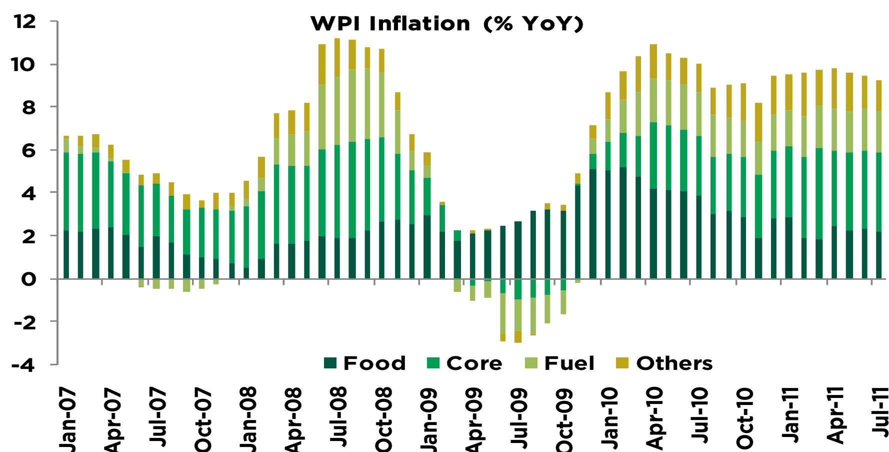
Inflation has become more embedded in India

With 20 months of over 8% YoY WPI inflation, inflation has become somewhat embedded in the Indian economy (Figure 1).

Figure 1: India WPI inflation : high levels of inflation persist



Source: CEIC, Espirito Santo Securities

High inflation imposes socio-economic costs, distorts relative prices...

The roots of inflation are found both in demand-side and supply-side

High inflation imposes socio-economic costs (especially on the poor and on those whose earnings are not indexed to prices), distorts relative prices, leads to an appreciation of real exchange rates, erodes the value of the financial assets and creates instability. The major problems that an economy can experience as a result of high inflation are:

a) Intensification of the fiscal problem: In periods of high inflation, real tax collections do not keep up with inflation, because collections are based on nominal incomes of an earlier year and public utility prices are not raised in line with inflation. For both reasons, the fiscal problem is intensified by inflation, and public savings may be reduced. This may adversely affect public investment.

b) Instability: There is uncertainty about future rates of inflation, which reduces the efficiency of investment and discourages potential investors.

c) Reduced financial savings: High inflation rates also tend to be volatile and the associated negative and unpredictable real interest rates discourage domestic financial savings.

Unlike the other economies like South Korea, Brazil and China where policy preference has changed from taming inflation to managing growth, India still seems to be ardently fighting inflation and inflationary expectations. The roots of inflation are found both in demand-side and supply-side. Before trying to assess if and when inflation will come down in India, it's important to drill down into each of these drivers to ascertain what holds importance in the current context.

What have traditionally been the supply-side drivers?

There have been a reasonably high number of episodes of high inflation in India historically. On most occasions, the high pressures of inflation were due to exogenous shocks (Figure 2) like the oil price hike, gulf crisis, wars, etc. and domestic supply shocks such as adverse monsoon conditions:

1) The maximum inflation recorded in the year 1974-75 at 25.2 % was mainly attributed to the failure of kharif crops in 1972-73 as also to the hike in crude oil prices in 1973.

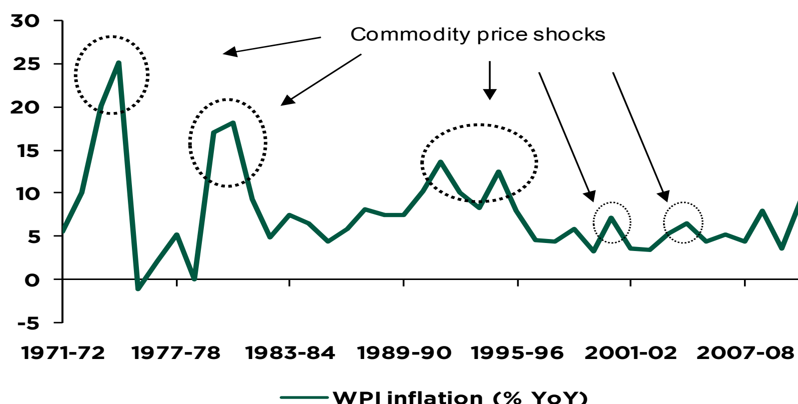
2) 1979-80 witnessed a strong resurgence of inflationary tendencies due mainly to poor agricultural output and the second hike in international oil prices. The decade was the most turbulent as far as the price situation was concerned.

3) The period 1990-91 to 1997-98 witnessed a revival of inflationary tendencies with four of the seven years showing price rises between 10% and 15 %. Following the Gulf crisis of 1991, the first half of the decade was characterised by double-digit inflation – the sole exception being 1993-94 with an inflation rate of 8.4%.

But the key point, which can also be deciphered from the chart below, is that the inflation peaks during each of the commodity price shocks only went lower. While this points towards lower volatility in inflation following the oil price shocks, the Indian economy cannot be immune to oil price variations considering India imports 80% of its oil requirements and 13% of WPI index is linked to global crude oil prices. What makes the price trends in oil more important is the fact that any transmission of higher global oil prices to domestic prices has both a direct and an indirect impact, the latter following from higher transportation costs which in turn feed into higher food and non-food prices. Thus, a 10% increase in domestic diesel prices, for example, results in a direct impact of 45 bps on inflation, with an approximately equal indirect impact.

Indian economy cannot be immune to oil price variations considering its global oil requirements

Figure 2: India WPI inflation : peaks led by oil price shocks



Source: CEIC, Espirito Santo Securities

Supply-side issues continue to impact India inflation

Other than the temporary supply shocks which India may be vulnerable to, it also faces long-term supply-side issues. While the current progress of monsoons has been positive, India continues to remain a supply constrained economy which is reflected in the fact that agricultural production has failed to grow materially over the last decade. Stagnant production, in conjunction with the following factors has been damaging: 1) rising population (addition of 181m to the Indian population in the last decade) and 2) shift in dietary patterns (discussed later in the report) 3) competition for land - little new land has been brought into agricultural use worldwide in recent decades. Growth in area under cultivation in India has declined for rice, wheat, coarse cereals and sugarcane over the last decade. This has also been a result of rising urbanization.

Supply-side constraints reflected in stagnant agriculture production and falling yields continue to impact inflation

To further complicate matters, the yield/hectare for various crops, including pulses and various commercial crops, has stagnated which is worrisome considering that India has one of the lowest yields in the world. India was somewhat successful in improving yields on the back of the green revolution, however, barring the green revolution era, the country's yield improved at a CAGR of only 1.6% (FY81-FY10) compared to its population growth of 1.87% in the same period. There's a need to bring in land reforms, especially to tackle the problem of low agricultural productivity stemming from small land holdings and leading to stagnant yields. Yield growth can come from two sources:

There's a need to bring in land reforms, especially to tackle the problem of low agriculture productivity

- Intensification of inputs: greater use of machinery, irrigation and chemicals
- Productivity growth: improved seeds, chemicals, irrigation and farm management practices

Both of the above have suffered because total investment (private plus public) in agriculture has also been on a decline. From an average of 17% of total investments going to agriculture in 1970s, the proportionate share declined to a mere 8.5% during 2000-2007.

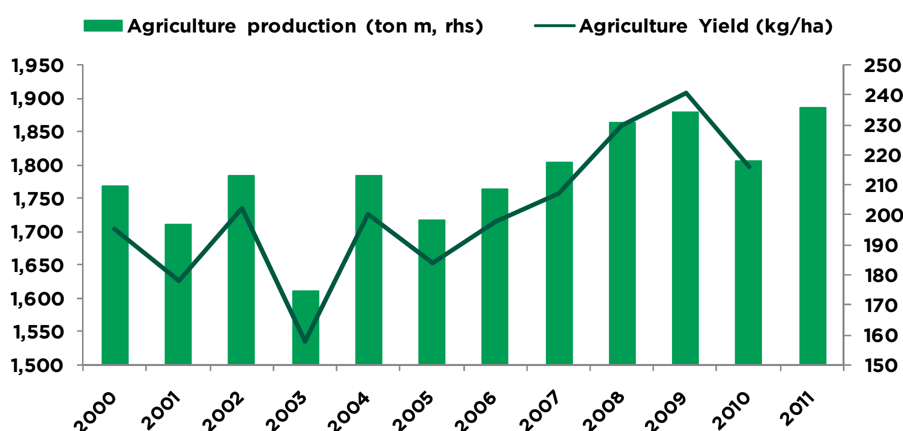
Other issues faced in the agriculture sector include the supply chain management where the wide prevalence of middlemen between producers and consumers, limiting farmer's lack of direct access to the retailers, are prompting an increase in prices.

Unless there's a shift in policy reforms towards higher productivity, India may be moving towards new higher structural food inflation

This calls for government to expedite action so as to deal with the supply side constraints. It has to cut down the plethora of middlemen in the farm-to-fork chain by overhauling agricultural marketing regulations. By investing in cold storage improvements and transportation, the government could help avoid price spikes in perishables like vegetables.

Thus, unless there's a gradual shift in the policy reforms towards higher productivity, it seems we are moving towards a higher structural level of food inflation.

Figure 3: Agriculture production has stagnated



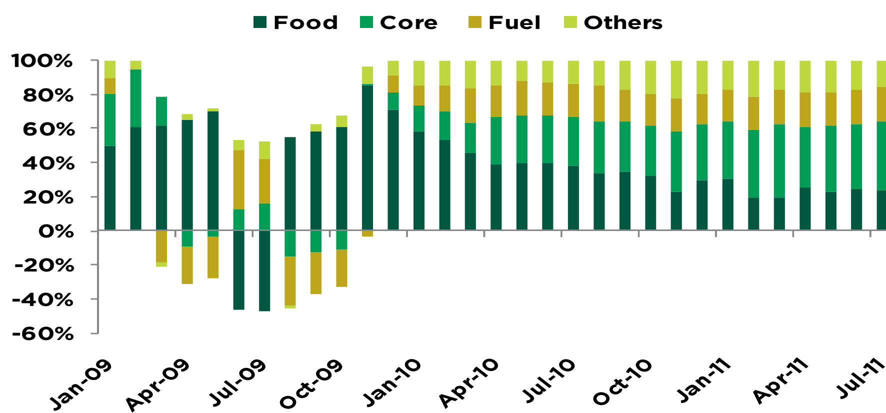
Source: CEIC, Espirito Santo Securities

The transition from supply-side to demand-side

The drivers of inflation have consistently changed from food to non-food, though food inflation continues to remain sticky

The first phase of the recent surge started in late 2009 when inflation swiftly turned around and jumped from 1.7% in October to 7% in December. While a certain part of the rise could have been attributed to the waning positive base effect, the real culprit behind the jump was found in food prices, which, on an average, have contributed 27% to total inflation since 2009. The failure of monsoons, followed by a concurrent increase in global commodity prices was in a big way responsible for the increase. The drivers of inflation have consistently changed in the recent surge as food inflation gets transmitted to other components. Over time, though the contribution of food to inflation has come down (Figure 4), food inflation has remained high and sticky.

Figure 4: Contribution to inflation (%)



Source: CEIC, Espirito Santo Securities

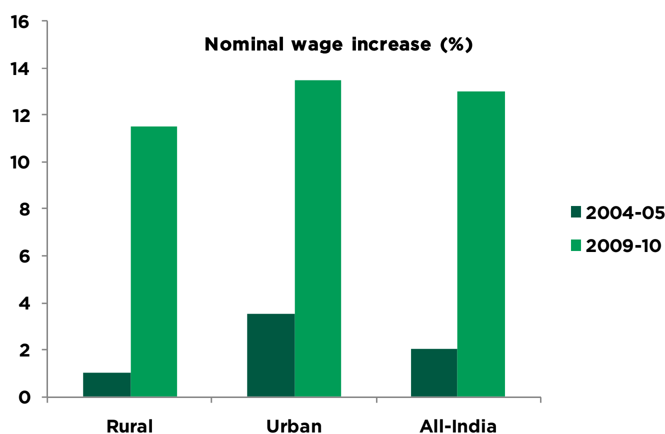
One of the leading causes of rising demand-side pressures has been rising wage growth and the classic wage-price spiral

Traditional demand-side drivers of inflation

Barring the supply–side constraints, which have failed to show any material progress, demand-side pressures too have accentuated in the recent past. One of the leading causes of rising demand-side pressures has been rising wage growth in India.

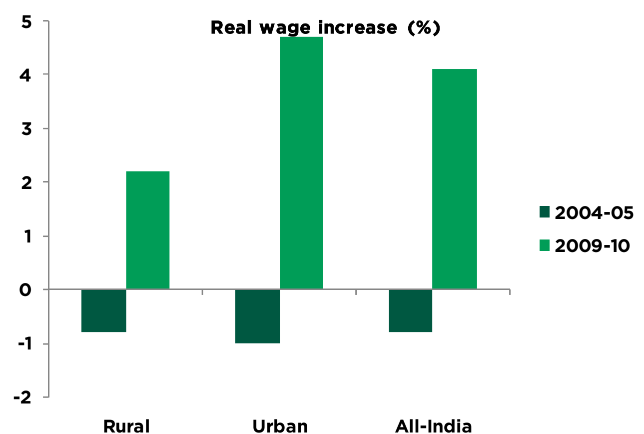
We feel that the Indian economy is caught in a classic wage-price spiral – where prices and wages chase each other till growth comes down and lowers inflationary expectations. This has now also been emphasised by RBI as the key driver of inflation. The spiral has essentially been a result of a) rising minimum support prices (MSP) for various commodities b) rising wages under the National Rural Employment Guarantee Act (NREGA) scheme. Here, the linkage of NREGA wages with CPI has further aggravated the problem of wage-price spiral. Demand for labor for NREGA related work has also impacted the demand-supply balance of labor for the agricultural sector. Shortage of labor in the agriculture sector, in turn, has transmitted higher wages under NREGA to higher wages under agriculture.

Figure 5: Nominal wages have shown a sharp increase



Source: NSSO, Espirito Santo Securities

Figure 6: 'Real' wages too have been rising



Source: NSSO, Espirito Santo Securities

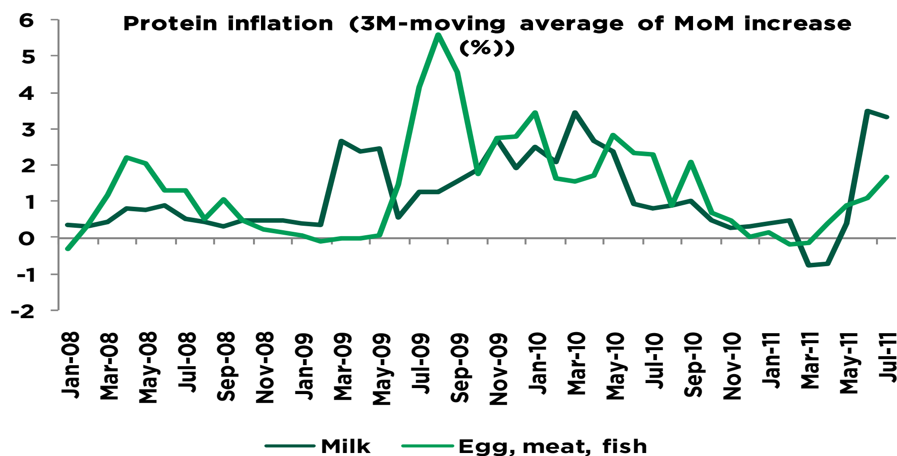
Evolving/new demand-side drivers of inflation

Rising wages are also being manifested in the rising demand for a better quality living, which is also reflected in a gradual shift in drivers of inflation from food-based to non food – based. And currently it's the non-food manufacturing (core) segment which is contributing the most to inflation. Contribution of 'core' inflation to total WPI inflation went up from 27% in 2010 to 39% in 2011. Rising demand-side pressures are also reflected in the fact that protein-based food output inflation

Rising demand pressures are also visible in protein-based inflation which is showing a fast rising trend and also a high deviation from average

(Figure 7) has surged in the last year. Not only is the protein-based inflation showing a fast rising trend, but it's also showing a high deviation from average (depicted as volatility in Figure 8)

Figure 7: Protein inflation has witnessed a sharp surge (%)



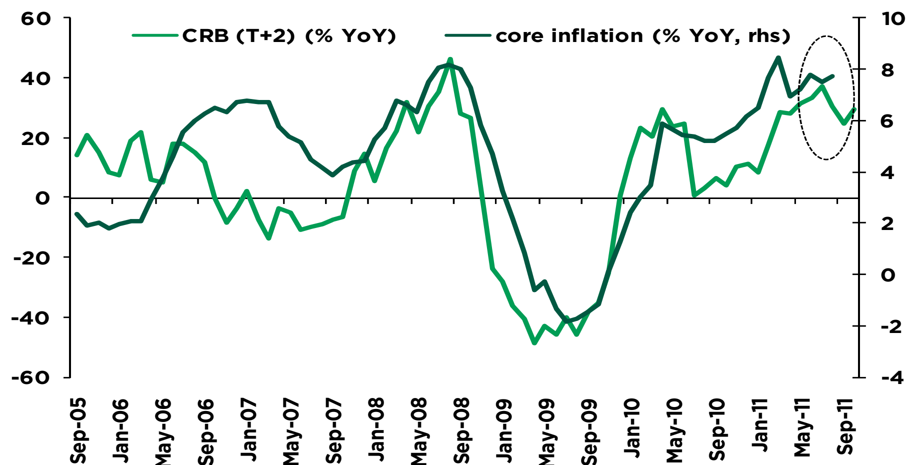
Source: CEIC, Espirito Santo Securities

Global commodity prices have impacted India significantly considering it's a net importer of commodities

It's not only the domestic demand-side pressures which have been behind the pick-up in 'core' inflation, but also the recent surge in global commodity prices that has impacted different countries differently depending on whether they are net importers or exporters. India, being a net importer of commodities (with total imports averaging 23% of GDP in the last five years, and average monthly trade deficit of USD 9 bn in 2011), has been a price taker in the global commodities market. Hence, the rising pressure on global commodity prices has been transmitted to higher domestic input prices and higher domestic output prices, both of which is reflected in higher WPI inflation. The importance of global commodity prices in determining India inflation is reflected in Figure 8, where the correlation between the Reuters/Jefferies commodity price index and WPI 'core' inflation is seen to be as high as 70%. Our analysis suggests that the former leads the latter by 2 months and the chart depicts that the ongoing moderation in global commodity prices is expected to positively impact domestic inflation.

Correlation between the global commodity prices and India WPI index is as high as 70%

Figure 8: Global commodity prices 'lead' domestic inflation by 2 months



Source: CEIC, Espirito Santo Securities

The role of inflationary expectations

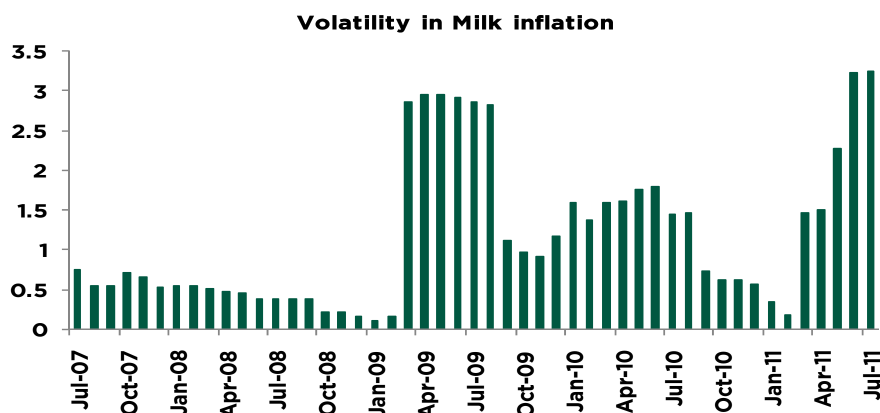
The issue of inflationary expectations has become important in the current inflationary environment as the RBI has become extremely watchful of the trend and magnitude of the same. One key reason why the RBI has been worried about rising inflation is the impact it has on inflationary expectations.

The inflationary expectations survey of households launched by the RBI has been showing unpleasant results. The last round of the survey (conducted in Apr-Jun 2011 quarter) showed that the three-month ahead inflation expectations of households have been at 11.8% and one-year ahead inflation expectations have moved slightly higher to 12.9% from 12.7% in the previous round. The worrying aspect of the survey results has been persistence of inflationary expectations at high levels – one year ahead expectations in the last six quarters has averaged 12.2%, implying an inflation rate much higher than the last reading of 9.78% for August 2011.

Increase in volatility of inflation may be one of the reasons why inflationary expectations have failed to correct

An increase in volatility of inflation (Figure 9) results in higher inflation premiums being discounted and hence may be one of the reasons why inflationary expectations have failed to correct.

Figure 9: Volatility in protein inflation has increased



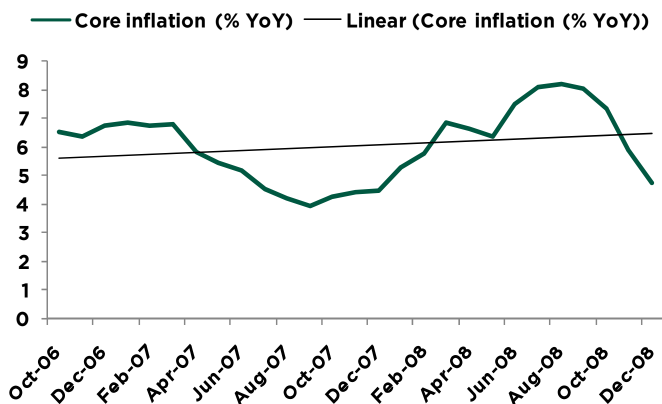
Source: CEIC, Espirito Santo Securities

Structural break in 'core' inflation is also driving inflation

'Core' inflation showed a structural break in 2009 and the trend has moved significantly and persistently higher

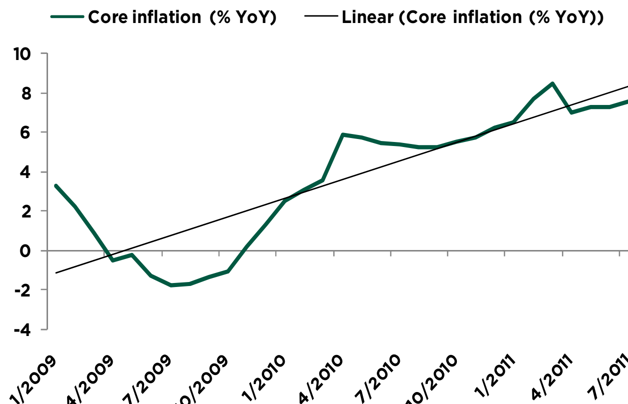
The prevalent demand-side pressures have been acute enough to cause structurally higher inflation. Our analysis suggests that 'core' inflation (non-food manufactured products inflation) showed a structural break in 2009 (Figures 10 and 11) and the trend has moved significantly and persistently higher. Even when we exclude calendar year 2009 (which, because of negative inflation aids a swift rise in trend core inflation and may hence distort results) from the analysis, trend inflation continues to be closer to 8% currently, vis-a-vis 6% at the end of 2008. This suggests that even if we anticipate inflation to come down, the levels that it comes down to may be higher than the historical average of 4.4% (since 2005). We feel that given the structural break, 'core' inflation is unlikely to moderate significantly and is likely to hover above the historical average.

Figure 10: 'Core' inflation shows a mixed trend



Source: CEIC, Espirito Santo Securities

Figure 11: The swift change in 'core' inflation trend



Source: CEIC, Espirito Santo Securities

Other inflation indicators have a different story to tell

We also look at other indicators of inflation available for India to assess if they have a different story to tell. The two other relevant indicators of inflation available for India are a) consumer price index b) GDP deflator. The former reflects the cost of living conditions of a homogenous group of consumers based on retail prices. It does incorporate the prices of the services consumed as well. The latter is a more comprehensive measure of the level of prices of all final goods and services produced in an economy including the entire spectrum of economic activities.

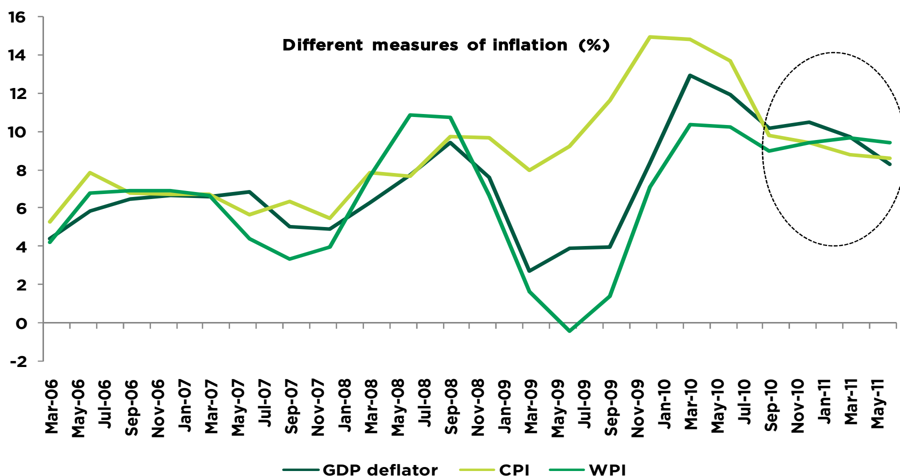
WPI, CPI, GDP deflator seem to follow each other broadly, except in the current period

If one evaluates the performance of CPI and GDP deflator in conjunction with WPI, the results suggest that on a year-on-year basis, the three indices seem to follow each other broadly. One exception has been the current period when WPI inflation has remained at higher levels since September 2010, while the other two indicators have actually been treading lower (Figure 12).

Difference in WPI and CPI suggest that higher manufactured goods and input prices have kept WPI elevated

The difference between WPI and CPI arises from the difference in weighting pattern of the two indices, with the latter being more sensitive to food prices and less to manufacturing input prices. This seems to suggest that 1) moderation in food product prices has impacted CPI positively whereas higher manufactured goods' prices have kept WPI elevated; 2) input prices, for e.g. global commodity prices of base metals, which have been on an uptrend, are partly responsible for a higher WPI inflation and hence the divergence. This seems to bode well with our earlier conclusion of inflation being driven by higher trend in 'core' or non-food manufacturing inflation. Since 'manufacturing' inflation has been high, a moderation in GDP deflator has likely been following a moderation in 'services' inflation.

Figure 12 Different ways of measuring inflation in India



Source: CEIC, Espirito Santo Securities

Scenario Analysis:

Having discussed the drivers of inflation in the current scenario, we attempt to draw the WPI inflation trajectory under different scenarios. The positive base effect in Q1, 2012 should ensure a significant correction in WPI inflation in any scenario. The extent of correction will depend on how significantly the components of WPI correct.

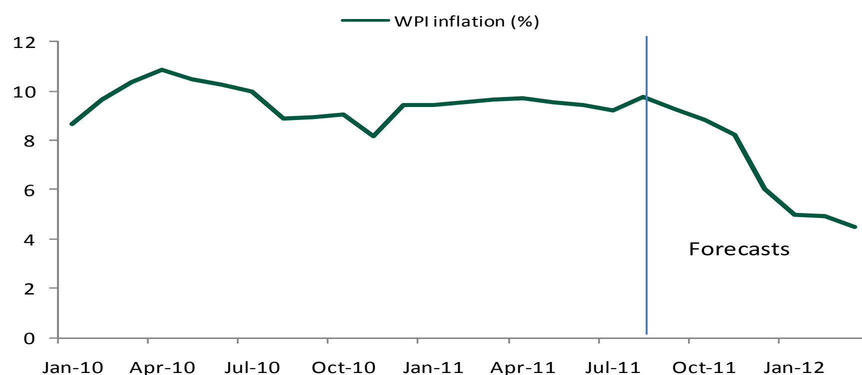
The choice of scenarios is contingent on our conclusions derived above. The key conclusion coming out of our analysis is that 'core' inflation, driven by rising demand-side pressures and global commodity prices has been at the heart of the inflation problem. Hence, the first scenario discusses the impact of lower global commodity prices on inflation.

1. Global commodity prices moderate

To ascertain the impact of global commodity prices on inflation, we carry out a regression analysis where WPI inflation is seen as a function of real GDP, lagged WPI, money supply growth, interest rates, exchange rate and global commodity prices. Global commodity prices seem to impact WPI inflation with a two month lag and hence enter the equation with a lag. The overall regression analysis suggests that global commodity prices do impact WPI inflation and the nature of impact is positive and significant. As per our results, a 1% correction in the CRB index will result in 11 bps fall in WPI inflation. Below we depict the inflation trajectory if the global commodity prices (given by Thomson Reuters/Jefferies commodity index) were to correct by 15% by March 2012 (from 311 in September 2011 to 250 in March 2012). Administered fuel prices, in this scenario, are assumed to stay unchanged.

Our regression analysis indicates that 1% correction in global commodity prices will result in 11bps fall in WPI inflation

Figure 13: WPI inflation can fall closer to 4.5% YoY if global commodity prices correct by 15%



Source: CEIC, Espirito Santo Securities

As shown in Figure 13 above, WPI inflation could fall to 4.5% YoY in March 2012 if global commodity prices were to correct by 15%. The sharp fall in WPI inflation (from 9.78% YoY in August 2011 to 4.5% YoY in March 2012) will not only be a result of CRB index correction but also a very positive base effect in Q1, 2012. But one needs to factor in the local currency movement, a huge depreciation in which will negatively impact the trajectory. Hence, after taking into account sustained INR depreciation, the benefits of lower commodity prices may not accrue and inflation in March 2012 may continue to hover around 6% YoY.

WPI inflation can fall to 4.5% YoY in March 2012 if global commodity prices were to correct by 15%

2. Administered fuel prices are hiked

In our baseline scenario, we are bearish about global commodity prices given the expected moderation in global growth and Fed's reluctance to embark on another round of full-fledged quantitative easing. But this may not mean that the adjustment of domestic fuel prices to global crude oil prices will be abandoned,

which will keep the upward pressure on India fuel inflation high. In this second scenario, we assume a partial increase in administered domestic fuel prices, something which has long been contemplated by the government:

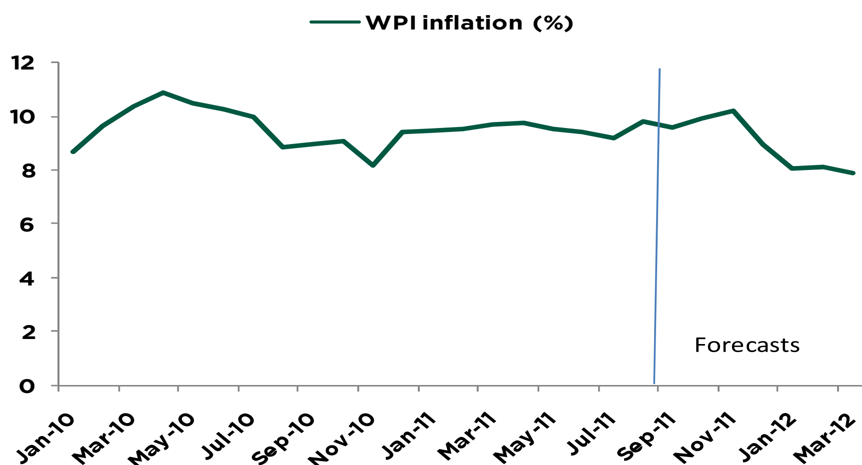
- diesel prices to go up by 10%
- kerosene price to go up by 20%
- LPG prices to be market determined
- The increase in prices to happen over a period of time i.e. from October-December 2011
- Global commodity prices and hence domestic manufactured goods' inflation to ease from 7.8% YoY in August 2011 to 3.7% YoY in March 2012

As far as food prices are concerned, we expect supply-side constraints to ease only marginally and hence look at food prices to remain sticky. A mix of factors like healthy kharif foodgrain production but still high prices for other food articles such as fruits and vegetables; milk and eggs; will continue to crowd out any food price moderation. Thus, at best we expect food inflation to not show a runaway tendency but stay sticky in 2011 (averaging 12.3% YoY during the year). 2012 may bring in respite following the possibility of a healthy winter crop. Below we depict the inflation trajectory if the above scenario were to pan out.

In a fuel price hike scenario, the inflation trajectory may see a sharp jump and may move to 7.9% YoY in March 2012

The trajectory shows a parallel shift. Inflation for March jumps swiftly to 7.9% YoY (much higher than the 4.5% YoY arrived in scenario 1 and much over RBI's target of 7% YoY) from 6% YoY in the previous scenario. In this scenario, more damage is expected from a 10% hike in diesel prices (about Rs. 4.3/litre) than a 66% hike in LPG because of the higher weighting (4.7%) given to diesel in WPI.

Figure 14: WPI inflation can stay elevated going into March if administered fuel prices were to be hiked



Source: CEIC, Espirito Santo Securities

3. The base-line scenario

We chart out our base case scenario below. The assumptions are as follows:

In our base case scenario, food inflation is expected to remain sticky. Administered fuel prices are assumed to be hiked, and manufacturing inflation is assumed to correct

- Food inflation behaves as in scenario 2, with stickiness to persist (averaging 12.3% YoY during 2011) and some moderation (food inflation averaging 6% YoY) coming in Q1, 2012.
- Administered fuel prices are assumed to be hiked, but at a proportion lesser than what illustrated in scenario 2.
    - diesel prices to go up by 5%

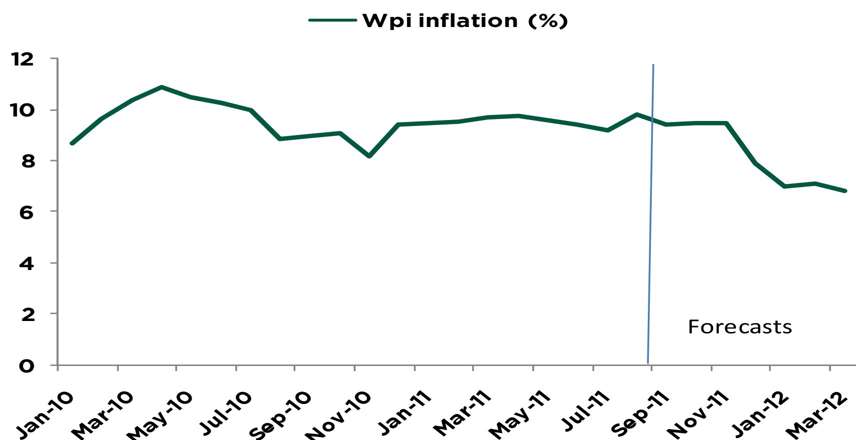
- kerosene price to go up by 20%
- LPG prices to be hiked by 30%

- Manufacturing inflation corrects following a moderation in global commodity prices and averages 5.4% YoY in H2, FY12 vs. 7.4% YoY in H1, FY12

In such a scenario, WPI inflation is expected to moderate to 6.8% YoY in March 2012

The results here are somewhere between scenario 1 and 2, where inflation is expected to moderate to 6.8% YoY in March 2012. This will be a level which the RBI will be comfortable with. All the scenarios hint at a sharp moderation in YoY inflation starting December 2011 on a strong base effect.

Figure 15: WPI inflation can stay elevated going into March if administered fuel prices were to be hiked



Source: CEIC, Espirito Santo Securities

Conclusion

We expect WPI inflation to moderate to 6.8% YoY going into March 2012 under our base case, primarily on account of a positive base effect. This is likely to be aided by a correction in global commodity prices, lagged impact of monetary policy tightening on demand even if administered domestic fuel prices jump higher. The pace and magnitude will depend on the actual hikes in fuel prices and actual correction in global commodity prices.

We expect RBI to slip in the wait-and-watch mode as inflation shows signs of peaking out; and global and domestic growth disappoint

The RBI, in its last policy statement highlighted that *"A premature change in the policy stance could harden inflationary expectations, thereby diluting the impact of past policy actions. It is therefore imperative to persist with the current anti-inflationary stance"*. This implies that while there may not be an explicit move to pause, a change in the RBI's hawkish stance should materialise as global commodity prices correct and domestic growth shows increased signs of strain.

We feel that the RBI will now slip into the wait-and-watch mode as we expect inflation to show signs of peaking out; both global growth and domestic growth to disappoint further and noise and criticism around rate hikes to increase. On balance, we feel that though the RBI has left the door open for more rate hikes, there's a low probability of the RBI actually going ahead with one.

Rate cuts are unlikely to materialise in the near-term as inflation is unlikely to moderate significantly below RBI's target

Rate cuts from the RBI are unlikely to come in the near term as inflation is unlikely to moderate significantly below RBI's target. Though domestic growth may disappoint the RBI (we expect GDP to grow at 7.5% YoY in FY12 vs. RBI's target of 8% YoY), we do not think that it'll be exceedingly worried about it as long as it doesn't slip below the 7% level.

The impact of inflation on sectors' returns

As discussed in our previous note, Indian equity market performance is influenced more by directional inflation than the absolute level of inflation. The same applies at the sector level. **Metals, Auto and Capital Goods** sectors' returns are most correlated to inflation, so declining inflation in CY12 should help performance.

Moving from correlation to actual performance, the performance of Indian equities is significantly better in a decreasing inflationary environment (see Table 3). The outperformance is particularly high for the **Capital Goods, Metals, Oil & Gas and Banks**.

Table 2 Correlation of sector indices with WPI (YoY)

Sectors	Correlation Coefficient
Sensex	-0.39
BSE 200	-0.40
Metals	-0.48
Auto	-0.43
Capitals	-0.41
Power	-0.37
IT	-0.37
Oil	-0.35
TMT	-0.34
Health	-0.29
Durables	-0.29
Banks	-0.29
FMCG	-0.26

Source: Bloomberg, Espirito Santo, Period under study Apr'05-Aug'11

Table 3 Annualized returns in decreasing inflation environment

Sectoral Indices	Decreasing Inflation	Rel. to Sensex
Sensex	32%	0%
BSE 200	32%	-1%
Capitals	45%	12%
Metals	44%	12%
Oil	42%	9%
Banks	40%	8%
Auto	35%	3%
FMCG	34%	2%
Durables	33%	1%
Power	28%	-5%
TMT	11%	-21%
Health	7%	-25%
IT	4%	-28%

Source: Bloomberg Espirito Santo, Period of analysis is Apr'05-Aug'11

Investment Implications

Given that inflation is likely to stay high until the calendar year end, but then moderate from current levels of 9.78% towards 6.8% by March 2012, throughout this section we've tried to highlight the investment implications for a declining inflationary environment.

Our analysis of part performance in different periods of declining inflation suggests that Capitals Goods, Metals, Oil and Banks are best placed in a declining inflationary regime. Power, TMT, Healthcare and IT are worst placed in such an environment (see table 4).

Table 4 Impact of high and declining inflation on stock price performance

Sectors	Declining Inflation
Capitals	Positive
Metals	Positive
Oil	Positive
Banks	Positive
Auto	Moderate
FMCG	Moderate
Durables	Moderate
Power	Negative
TMT	Negative
Health	Negative
IT	Negative

Source: Bloomberg Espirito Santo, Period of analysis is Apr'05-Aug'11

Appendix – Composition of Indian WPI

	Commodities covered in WPI	Weight
	All commodities	100
1	**Primary articles**	**20.11**
(A)	Food articles	14.33
	Food grains	4.09
	Fruits & vegetables	3.84
	Milk	3.23
	Eggs, meat, fish	2.41
	Condiments & spices	0.56
	Other food articles	0.18
(B)	Non-food articles	4.25
	Fibres	0.87
	Oilseeds	1.78
	Other non-food articles	1.38
	Flowers	0.21
(C)	Minerals	1.52
	Metallic minerals	0.48
	Other minerals	0.13
	Crude petroleum	0.9
2	**Fuel and Power**	**14.91**
(A)	Coal	2.09
(B)	Mineral oils	9.36
	LPG	0.91
	Petrol	1.09
	Kerosene	0.73
	Aviation Turbine Fuel	0.25
	High speed diesel	4.67
	Naphtha	0.79
	Light diesel oil	0.11
	Bitumen	0.15
	Furnace oil	0.46
	Lubricants	0.16
(C)	Electricity	3.45
3	**Manufactured products**	**64.97**
(A)	Food products	9.97
(B)	Beverages & tobacco products	1.76
(C)	Textiles	7.32
(D)	Wood and wood products	0.58
(E)	Paper and paper products	2.03
(F)	Leather and leather products	0.83
(G)	Rubber and plastic products	2.98
(H)	Chemical and chemical products	12.01
(I)	Non-metallic mineral products	2.55
(J)	Basic metals, alloys and metal products	10.74
(K)	Machinery and machine tools	8.93
(L)	Transport, equipment and parts	5.21

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