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SOLUTION TO RURAL WOES: 1.5 TIMES MSP /PRICE SUPPORT / INCOME SUPPORT~WHICH ONE IS BETTER?

The rural sector is hit by declining prices. The Agri-GDP deflator has declined from 9.9% in FY13 to merely 1.1% in FY18. Such persistent decline in Agri-GDP deflator is indeed worrisome. Such a decline also coincides with the in principle inflation targeting regime introduced by RBI from FY14.

We also believe that buoyant tractor sales are in no way indicative of the health of the rural sector. Now tractors are being used more for transportation of building materials.

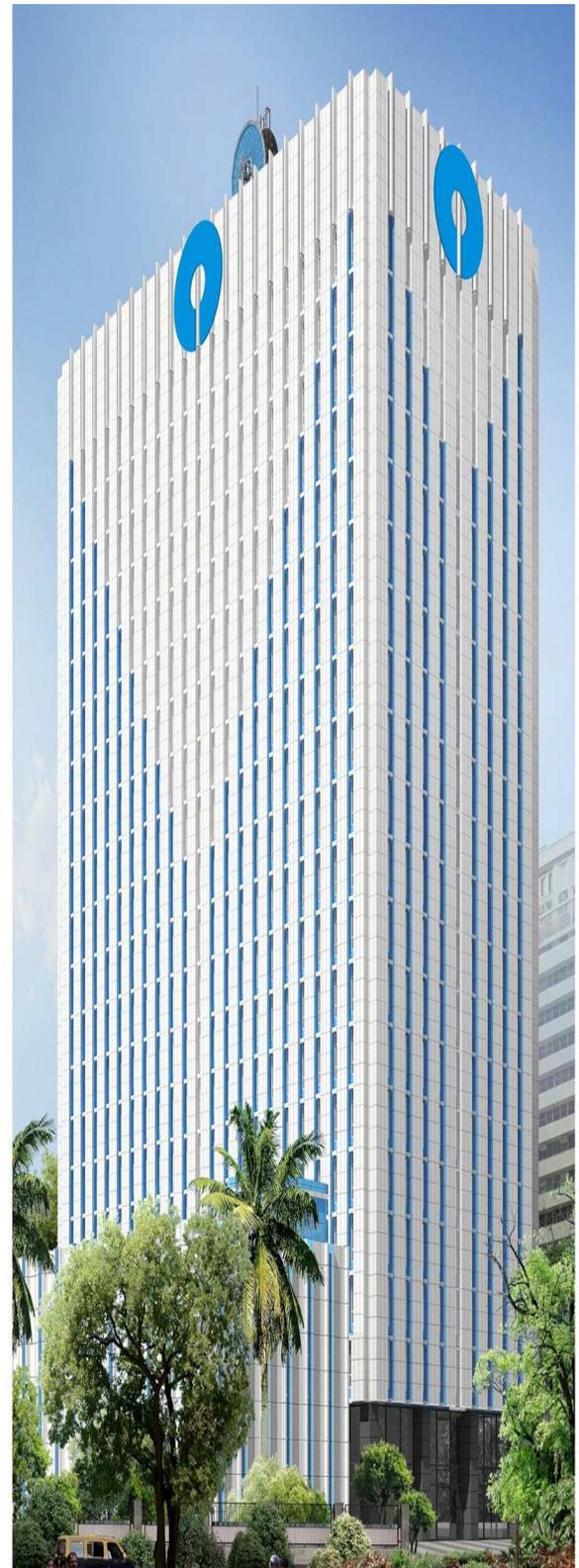
There are 3 ways to alleviate such a distress, each of which has a benefit and a cost. Firstly, a price support programme with the increment of MSP increased by 1.5 times across 17 major Kharif and Rabi crops could impact CPI inflation by 71 bps (pulses alone by 42 basis points, but cereals minimal). The estimated MSP for Kharif crops is based on projected A2+FL cost for FY19. Secondly, for a price support scheme like Bhavantar Bhugtan Yojana (*we believe it has been somehow unfairly criticized by sector experts*) if applied at all India level, the total cost is around Rs 32,302 crores. However, if states share around 40%, the cost will come down.

Thirdly, an income support scheme as introduced by Telangana State. Our estimate suggests, if this scheme is implemented at all India (29 States+ UT) level by providing Rs 4000 per acre per season, the financial burden could be around Rs 2.7 lakh crore (based on net sown area) and could rise to Rs 3 lakh crore if offered on cultivated land. Any item to dilute the cost by removing cereals could jeopardize the production patterns.

Based on the analysis of all the three schemes (in which two of them are currently running in two states), we propose a hybrid of 2 schemes viz. 1.5x of MSP and Price Compensation Scheme. This will involve an optimal inflation /fiscal cost trade-off and win-win for farmers.

For Cereals (Wheat, Paddy, Ragi, Maize, Bajra) which are largely procured by both Central and State Government, implement MSP of 1.5x cost of production. Crops like Groundnut, Sesamum, Nigerseed and Soyabean should also be covered under 1.5 times of MSP. **The overall impact of inflation could be only around 17 basis points for such crops.**

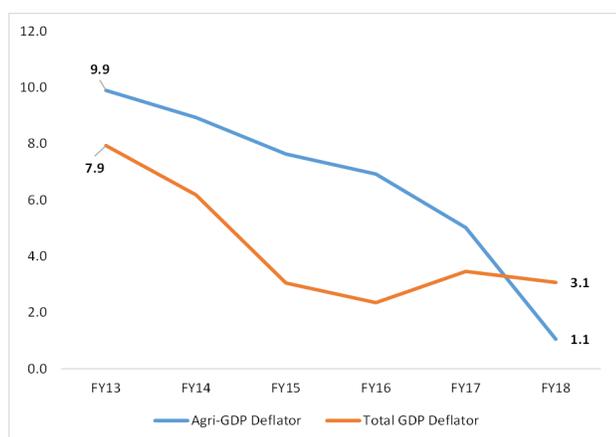
For Pulses (Arhar, Moong, Urad, Masur and Gram) and Sunflower Seed, we propose Price Compensation Scheme (PCS) **as the fiscal cost will be Rs 13,110 crore only/ 0.08% of GDP.**



RURAL/AGRICULTURE DISTRESS IS A FACT

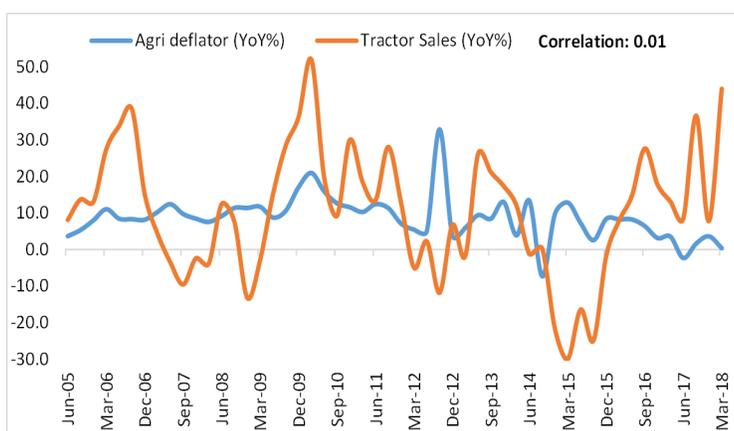
- ◆ The recently released annual GDP data points to some interesting facts. The GDP deflator (*an economic metric that accounts for inflation by converting output measured at current prices into constant prices GDP*) which stood at 3.1% for FY18 was very low compared to the levels it was achieved in FY13 (7.9%) and FY14 (6.2%). Unfortunately, this decline in GDP deflator was primarily due to low Agri-GDP deflator, which was continuously declining from 9.9% in FY13 to merely 1.1% in FY18. This decline in Agri-GDP deflator is an indication of distress and low level of purchasing power in rural/agriculture area. Such a decline also coincides with the inflation targeting regime introduced by RBI from FY13.
- ◆ Also, when we bifurcated the GVA growth into Agri-GVA growth and Non-Agri GVA growth we found out that the nominal non-agri GVA expanded from 11.5% in Q4 FY17 to 12.0% in Q4 FY18. During the same period, nominal Agri GVA however declined from 10.9% to 4.9%. This indicates that the growth in overall GVA is primarily due to growth in industry and services segment, not the agriculture segment.
- ◆ Importantly, tractor sales, are generally considered as proxy for better price realisations for the farm sector. During FY18 tractor sales reached an all-time high sales of 7.11 lakh units, around 22% higher than the previous year. However, the relationship between tractor sales and farm realisations (*Proxy: Agri Deflator*) is weak as the commercial usage of tractors is increasing rapidly. Now tractors are being used more for transportation of building materials like bricks, stone plates and locally mined sand as cost of transportation increases massively when commercial vehicles are used for the said purpose. Thus, buoyant tractor sales are in no way indicative of the health of the rural sector. Also, high level of NPAs in tractor loans indicate that due to rural/agriculture distress, farmers are unable to pay the instalments irrespective of the usage of tractors.

GDP Deflator (%)



Source: SBI Research

Tractor sales & Agri Deflator (% yoy)



Source: SBI Research

MEASURES TO ALLEVIATE RURAL/AGRICULTURE DISTRESS

- ◆ Given that prices in agri sector are at significantly low levels, there are **three ways/schemes** in which we can alleviate this at least in the short term. **First**, is to provide a better price to all Rabi and Kharif crops by fixing MSP at 1.5 times over the cost of production. **Second**, to develop an institutional mechanism to compensate the price difference where market price is less than MSP like Bhavantar Bhugtan Yojana (BBY) as it was adopted in Madhya Pradesh, and **Third**, is to provide agriculture Investment Support in form of cash as is being currently done in Telangana. Here we will analyse pros and cons of all the three schemes / price support / income support and suggest what could be done as a quick fix solution to address the distress in the short term.

1. MSP IS INCREASED BY 1.5 TIMES

- ◆ In the Union Budget, Govt. has announced that for FY19, MSP for majority of Rabi crops have already been fixed at 1.5 times of the cost of production (which is based on A2+FL) and has now announced to implement this resolution as a principle for the rest of crops i.e. Rabi crops that were earlier left out and all Kharif crops.
- ◆ Theoretically believed, by increasing MSP, though it will provide better support price to farmers, has an inflationary impact on consumers. Commodities like paddy and wheat which have combined weight of more than 7% in CPI, so any increase in support prices will have impact on CPI inflation.

- ◆ With the Government due to announce MSP for Kharif crops in FY19, we estimated the projected MSP for all Kharif crops, based on projected A2+FL cost for FY19 (taken as the maximum growth rate during FY17-FY18 for any crop) and then applying 1.5 times on it. The projected MSP (excluding bonus as is the norms) for FY19 shows, that the maximum increase in prices will be on Nigerseed (73%) followed by Ragi (58%) and Jowar (42%).
- ◆ Our estimate suggests, the increment of MSP by 1.5 times in Kharif crops could impact CPI inflation by 67 bps and for Rabi crops for which MSP has already been announced for FY19, the inflationary impact will be 4 bps and hence the combined effect will be 71 bps. Two major crops wheat and rice, for which majority of the procurement done by Govt., the increase in MSP will have less impact on inflation.
- ◆ This estimate is based on A2+FL cost and not on C2 cost, and if the Government, fix at 1.5x on C2 cost, the inflationary impact could be significantly large, and even breach the RBI CPI target by more than 200 bps.

2. PRICE COMPENSATION SCHEME

- ◆ The Madhya Pradesh Government had developed an institutional mechanism / Bhavantar Bhugtan Yojana, which was implemented in Madhya Pradesh since Oct'17. As it has already been implemented, it is better to evaluate the experience of MP. We believe Bhavantar scheme though have shortcomings has been somehow maligned by sector experts.
- ◆ The most common critique of Bhavantar scheme is that it resulted in traders beating down Mandi prices: Post harvest, some of the crops under BBY witnessed a declining trend in prices. The common argument being the trader groups artificially depressed prices to be paid to farmers as in any way they were getting compensated by the difference between MSP and the sale price at Mandis.
- ◆ For example, take the case of Moong. In case of Moong, where 8034 tonnes arrived to the market in between Oct-Dec'17 compared to 32,710 tonnes during corresponding period of last year. Despite this short supply, the prices which were supposed to be higher had declined by 11%, could be due to the deliberate efforts from traders/farmer groups to exploit the (price differential from MSP) advantage under BBY.
- ◆ However, there is also a contrarian argument to the above, that is overproduction drove down prices. For example, the arrival of major Kharif crops to Mandis in MP for sale during Oct'17-Dec'17 and the corresponding period of previous year. In almost all the crops, the total arrival figure has increased significantly, e.g. in Arhar, it increased by 716% from previous year and the price declined by 47%. Similar trends were also found in all the major Kharif crops except Moong.
- ◆ Additionally, while analysing the price trend in other states, we also found that, the decline in prices was not only due to implementation of BBY and restricted to Madhya Pradesh, but similar trend was also seen across other States. e.g., in case of Gram, the prices not only declined in MP, but also declined in Maharashtra, Rajasthan, and UP. Hence it is difficult to establish any direct causation between the trader cartel and price decline.

Impact on Inflation by increasing MSP 1.5 times of cost of Production					
Crops	Projected MSP for 2018-19*	MSP in 2017-18*	Growth in MSP	Average Wholesale Prices**	Inflation in bps
Wheat**	1735	1625	7%	1802	-
Gram**	4250	4000	6%	4319	0.03
Barley**	1410	1325	6%	1370	0.001
Masur**	4150	3950	5%	5293	-
Paddy Common	1800	1550	16%	1999	-
Jowar-Hybrid	2425	1700	42%	1997	0.04
Bajra	1475	1425	3%	1296	0.01
Ragi	3000	1900	58%	2000	0.02
Maize	1700	1425	19%	1252	0.02
Arhar	5375	5250	2%	4375	0.15
Moong	6775	5375	26%	3206	0.19
Urad	5375	5200	4%	4453	0.05
Groundnut	4825	4250	13%	3934	0.06
Sunflower Seed	5525	4000	38%	3279	0.12
Soyabean (Yellow)	3650	2850	28%	3427	0.02
Sesamum	6200	5200	19%	6768	-
Nigerseed	6800	3950	73%	4440	0.003
Total					0.71

Source: AGMARKET, SBI Research, Note: * Excluding Bonus as is the norms,** Already announced for 2018-19.

Modalities for Bhavantar Scheme	
Scenario	Amount to be Paid
MSP based on A2+FL costs (Imputed MSP)	A
Model Sale Price	B
Sale price of farmer	C
If C = A	No benefit
If C is more than B but less than A, then amount to be paid to farmer per quintal	A-C

Note: Model sale price is the average price of 3 States where the price of that crop is maximum

Arrival of Kharif crops and their Prices in Madhya Pradesh						
Crops	Arrival to Mandis (in Tonnes)			Average Prices Mandis		
	Oct'17-Dec'17	Oct'16-Dec'16	Growth	Oct'17-Dec'17	Oct'16-Dec'16	Growth
Soyabean	2181322	1514356	44%	2662	2815	-5%
Urad	673525	193342	248%	2666	5758	-54%
Gram	168398	64249	162%	5510	9349	-41%
Arhar	74794	9161	716%	3353	6283	-47%
Moong	8034	32710	-75%	3844	4307	-11%

Source: Agmarket, SBI Research

Decline in Market Prices of Crops post Bhavantar Scheme (Sep-17 to Dec-17)						
Crops	MP	Chhatisgarh	UP	Maharashtra	WB	Rajasthan
Gram	-31%	-1%	-12%	-29%	-1%	-27%
Arhar	1%	-	-	1%	-10%	-27%
Moong	2%	-	11%	-	7%	13%
Masur	-11%	-	-2%	-10%	-12%	-
Urad	-25%	-21%	-19%	-10%	-3%	-10%

Source: NAFED, SBI Research

- ◆ Even after appreciating the problems under Bhavantar Scheme, one of the major positives under BBY is it worked as a price support to farmers. For example, during the month of Nov'17 the total arrival of soybean increased by 150% in compared to last year, but the price declined by only 10%.

Impact on Inflation

- ◆ Under Price differential scheme/BBY, once the sales window gets closed, price had started to pick up (post Dec'17, price have jumped). Hence the inflation impact may be delayed. One of the possible reasons for this could also be the fact that traders may have hoarded the stock of crops sold to them by farmers and started releasing them when sales window closed.
- ◆ This could also be avoided by either extending the sales window which is presently Oct-Dec for Kharif crops and better administrative regulation at district level could ease such market prices.

Fiscal Burden

- ◆ We carried out a simulation exercise with production data, procurement data & Mandi prices of various crops at for all states for FY18 and calculated what could be the cost if Bhavantar scheme was implemented at State level. The fiscal cost for this programme is large and hence needs to be judiciously thought through and may be done only for selected crops. **The following options may be considered.**
- ◆ Our estimate shows, if this programme is only for Pulses and Sunflower, which is showing the maximum decline in prices and has no proper procurement mechanism, the total cost comes to around Rs 13,110 crores. We may avoid the price support programme for paddy and wheat as it directly under the procurement scheme. The total cost of paddy and wheat is Rs 3,836 crores.
- ◆ The price compensation scheme for Soybean and Groundnut is Rs 3,799 crores and Rs 4210 crores. The price compensation scheme for Jowar, Bajra and Maize is Rs 6848 crores.
- ◆ The compensation scheme could thus be done for crops where there is a price distress. **The total cost at all India level for all crops may be around Rs 32,302 crores.** However, if states share around 40%, the cost will come down even more.

Estimate of MSP based Price Compensation Scheme at All India Level			
Crops	Cost (Rs Cr)	Crops	Cost (Rs Cr)
Paddy	1322	Jowar	448
Maize	4090	Gram	3773
Bajra	2310	Masur	595
Wheat	2514	Sunflower seed	60
Barley	96	Groundnut	4210
Ragi	-	Soyabean	3799
Arhar	4009	Sesamum	403
Urad	2988	Niger Seed	-
Moong	1685	All 17 Crops	32302

Source: SBI Research

3. AGRICULTURE INVESTMENT SUPPORT SCHEME

- ◆ Telangana Government has already implemented this income support scheme (named: Rythu Bandhu Scheme) to support farmer's investment for two crops a year. The Government is providing 58.33 lakh farmers, Rs 4000 per acre per season to support farm investment, twice a year, for Rabi and Kharif seasons. Telangana Government has made an allocation of Rs 12,000 crores for the scheme in 2018-19 state budget.
- ◆ Though this is a first direct farmer investment support scheme in India, wherein the cash is paid directly but the fiscal cost of this scheme is exorbitant compared to the MP's BBY. Our estimate suggests, if this scheme is implemented at all India (29 States+ UT) level by providing Rs 4000 per acre per season, the financial burden could be around Rs 2.7 lakh crore (for all states based on net sown area).
- ◆ If the incentives is provided on Cultivated land (net sown area+ fallow land in current year), the cost could even touch Rs 3 lakh crore. We believe Telangana Govt. budget allocation of Rs 12,000 crore is based on total cultivated land as it the amount is close to our estimate of Rs 11,421 crore. Hence the adoption of same scheme on India level will be a costly affair.
- ◆ The other drawbacks of the scheme are that it ignores tenant farmers, and inequality in land holding and further, as the incentive is based on land ownership, so implementation of such scheme could raise the land price both of cultivated and uncultivated land.

Cost on Rythu Bandhu Scheme (In Rs Crore)			
States	Net Shown Area	Agri. Land	Cultivated Land
Andhra Pradesh	12328	17884	15098
Assam	5589	6650	5762
Bihar	10435	13005	12191
Chhattisgarh	9253	10987	9781
Gujarat	20365	25028	21114
Haryana	6962	7227	7132
Jharkhand	2737	8586	5476
Karnataka	19855	25357	22962
Kerala	4039	4480	4168
Madhya Pradesh	30348	34106	31115
Maharashtra	34288	41711	37054
Odisha	8845	13411	10659
Punjab	8142	8470	8306
Rajasthan	34638	50432	38307
Tamil Nadu	9527	16036	11500
Telangana	8652	13595	11421
Uttarakhand	1384	3061	1497
Uttar Pradesh	32812	37440	35030
West Bengal	10356	11179	11025
All India	277020	359567	306853

Note: Agri. Land=Total Fallow Lands+Net Sown Area+ Culturable waste land; Cultivated Land= current year Fallow Lands+Net Sown Area

Source: Land use Statistics of India 2014-15, SBI Research

A COMPARISON OF ALL THE THREE SCHEMES

- ◆ Here we provide the comparison of all the schemes (along-with the Telangana's recent scheme) on different parameters:

A Comparison of the Three Schemes			
Area	MSP increase by 1.5 times	Price Compensation Scheme (PCs)	Agriculture Investment Support Scheme
Crops covered	Almost all crops (Rabi & Kharif) will be covered.	It is advisable to start the scheme with selected crops where price distress is most and to minimise cost as MP also discontinued the scheme for 3 major crops after initially adopted for 8 crops.	This is based on crop season irrespective of the crop that is under cultivation.
Inflation	The impact on inflation is direct and we believe that there would be around impact of 71 bps on overall CPI if we implement it for all crops.	As this scheme will implemented on selected crops, the initial impact of inflation would be minimal.	It is less inflationary as these transfers may be used for different purpose like consumption, for repayment of money-lender debt, or investing in the upcoming crops.
Fiscal Burden	Nil	The fiscal cost for this programme needs to be judiciously thought through and may be done only for selected crops. Total cost at Rs 32,302 crores for all crops.	Rs 3 lakh crore.
Implementation	The current framework will suffice.	This is the most important part as proper mechanism should be devised for proper implementation.	Most easy to implement.

OUR SUGGESTIONS: ADOPT A HYBRID SCHEME OF MSP AND PRICE SUPPORT

Based on the analysis of all the three schemes (in which two of them are currently running in two states), we propose the following mechanism to alleviate agriculture distress:

- ◆ We propose a hybrid of 2 schemes viz. 1.5x of MSP and Price Compensation Scheme. We strip out those items from MSP, that are having maximum impact on inflation, notably pulses and sunflower (54 basis points). These items if provided PCS, will cost only Rs 13,110 crores. We believe a buoyant GST revenue could take care of this off balance sheet item, which is only 0.08% of GDP.
- ◆ For Cereals (Wheat, Paddy, Ragi, Maize, Bajra) which are largely procured by both Central and State Government, we should continue to procure at MSP of 1.5x cost of production, as the impact on inflation and fiscal will be minimal.
- ◆ For crops like Groundnut, Sesamum, Nigerseed and Soyabean should be covered under 1.5 times of MSP and as these crops are procured limitedly (even less than 10% of total production which varies from States to States).
- ◆ For Pulses (Arhar, Moong, Urad, Masur and Gram) and Sunflower Seed, we propose Price Compensation Scheme (PCS) to be implemented, as adoption under this scheme will have very less impact on inflation and fiscal cost will be 13,110 crore.
- ◆ Agriculture Investment Support Scheme, though very easy to implement and no leakages but has huge fiscal burden which should be avoided.
- ◆ We reiterate that the long term solution of farmer distress would be improving supply chain, establishing agro processing zone and creating better agri-logistic platform.

Summary of Hybrid Scheme		
Crops	MSP 1.5x	PCS*
Wheat, Paddy, Barley, Maize, Sesamum, Nigerseed, Groundnut, Soyabean, Bajra, Ragi	✓	✗
Arhar, Moong, Urad, Masur, Gram, Sunflower Seed	✗	✓
Fiscal Impact	✗	Rs 13110 crore
Inflation Impact	17 bps	✗
Note: This is only short-term solution; * PCS: Price Compensation Scheme		

ABOUT US

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After the first reorganization of the Bank, when specialized departments like Management Science, Management Information Systems, Planning and Market Segment Departments took over the statistical work of E&SRD, the Department was renamed as ERD.

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