JM FINANCIAL

India Strategy

Retain estimate of double digit growth in rural incomes in FY18

Suhas Harinarayanan
suhas.hari@jmfl.com
Tel: (+91 22) 66303037

Arshad Perwez
arshadperwez@jmfl.com
Tel: (+91 22) 66303080

Vaikam Kumar S
vaikam.kumar@jmfl.com
Tel: (+91 22) 66303018

Aishwarya Pratik Sonker
aishwarya.sonker@jmfl.com
Tel: (+91 22) 66303351

The recent farmer led protests and the consequent farm loan waiver in Maharashtra over the weekend brings forth two very important questions – a) what is the genesis of these especially following a good year of monsoons? and b) should we modify our view of a double-digit growth in rural incomes in FY18? On a), main triggers for the protests seem to be 1) lower prices of certain global agri commodities to which Indian produce are most sensitive to the global prices (pulses/oilseeds down 30-40%YoY) and where, incidentally, the local procurement machinery is weak, and 2) lower prices of fruits & vegetables (potato down 36%YoY/tomatoes down 50%YoY). Politics and the remnants of demonetisation are all playing a part. The protests are, for now, concentrated in states where the share of pulses/oilseeds are high as % of agri output and also amongst small to marginal farmers (share of fruits & vegetables is high in income). However given increasing support to prices and procurement, likely increase in government spending (2x+YoY rural homes to be built in FY18, 28%YoY increase in irrigation/rural development spending), we retain our initial hypothesis of near double digit growth in rural income during FY18. Key risks to these remain - (a) Prices of produce, (b) any cut in Government spending driven by (c) increased state fiscal deficits. We note that state GFD can expand by 80bps-450bps across states if the trend in loan waiver expands, but believe farmer cash flow would not be impacted given multiple factors at play. We continue to back Mahindra Finance (BUY) as the best way to play a recovery in rural incomes. Dhanuka Agritech (NR), Finolex Industries (NR) and V-Mart (NR) could be beneficiaries of higher rural spending over the next 12 months.

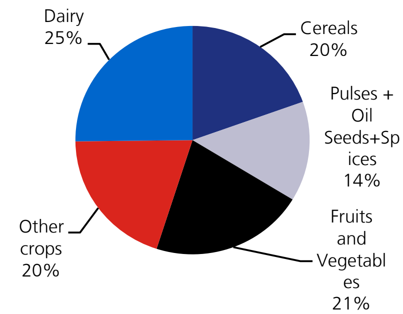
- **Farm loan waiver, increase in support prices, concerns on vegetable prices tops list of demands:**.The key demands during the current farmer protests have been: **(a)** farm loan waiver, **(b)** price support for pulses/oilseeds, vegetables, **(c)** raising procurement prices for milk to INR 50/litre (vs. INR 36-37/litre at present), and **(d)** increase in subsidies, social support (pensions) and improved implementation of policies. We have been commenting on the stagnant rural incomes in our rural survey reports (estimated rural income CAGR over '12-17 is 4% (nil for agri-income) vs. 12% over the previous ten years). The protests are concentrated in states where the share of global agri commodities in farm income is likely the highest, Maharashtra, Madhya Pradesh and Rajasthan (exhibit 12) and amongst small/marginal farmers for whom income from fruits/vegetables are high.

- **Global commodity prices have been soft:** The domestic prices of commodities such as oilseeds, pulses, fibre (cotton) and spices are highly influenced by the international commodity prices. During CY14-16, the FAO global price index declined 11% (CAGR), against 5% growth over CY09-14, and the current global food price outlook remains benign. As a result, India's agri-exports (FY17: US$33bn) declined at a CAGR of 5% during FY15-17, against a strong 25% growth over the previous five years. For Indian agri basket, the highest sensitivity to global agri prices are in pulses, oilseeds (see exhibit 1/2) with the correlation with wheat/rice prices being low.

- **Impact on state fiscal deficits:** We also analyse the impact on Gross fiscal deficit (GFD) of states if 35% of the agri-loans (to the small and marginal farmer) are waived off. GFD can expand by 80bps-450bps (exhibit 20) and 11 out of 14 states analysed, GFD would breach the FRBM limit of 3%. We also note that states can use relaxation in the fiscal rule, but would watch the progress made on the budgeted capital expenditure, as historically, states have reduced capex to maintain their fiscal targets.

- **Retain expectations of double-digit growth in rural incomes in FY18:** We believe the current healthy monsoon outlook (98% of LPA) will enable increased investments in farming across the agri-input chain and initial trends from Kharif sowing are encouraging (+13% YoY, Cotton: +43% YoY). As highlighted in our previous report (Rural safari-V), we also expect strong double digit growth in construction activity driven by government led spending on rural housing, irrigation and rural development (see exhibit 21/22/23).

Exhibit A. Break-up of Crop realisation from agri activities



Source: CMIE, FY16

Exhibit B. States and share of agri-output from pulses+oilseeds

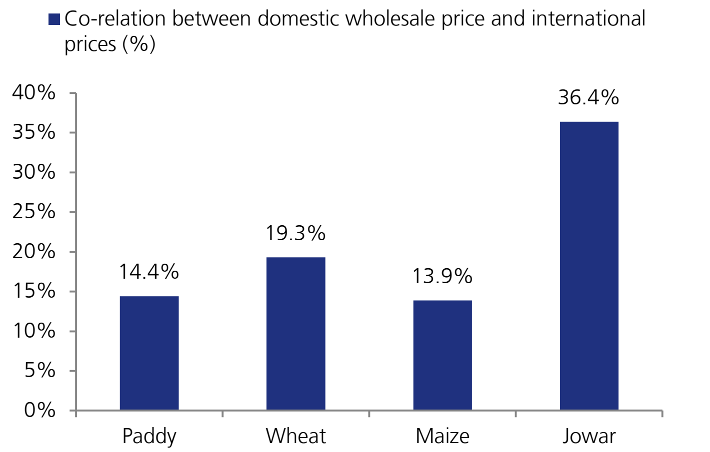
State	Estimated Pulse+Oilseeds % of output to total output
Madhya Pradesh	26%
Rajasthan	22%
Maharashtra	19%
Gujarat	17%
Karnataka	11%
AP	7%
Tamil Nadu	6%
Haryana	4%
UP	4%

Source: NSSO, CMIE, JM Financial, *Estimated

Farm income impacted by global agri-commodity price weakness

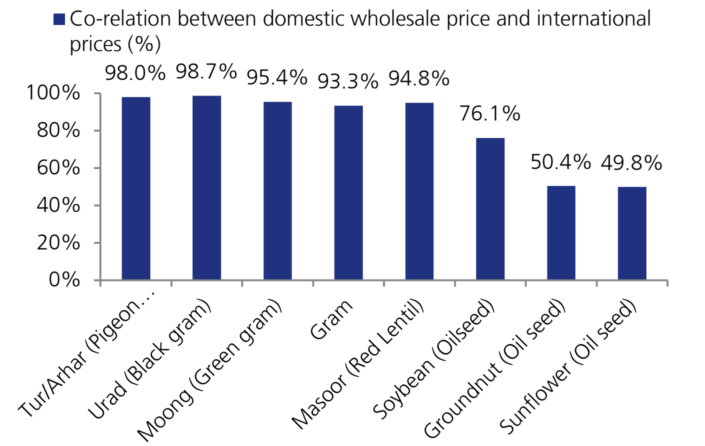
The prices of Indian agri-commodities are driven by (a) local supply-demand, (b) MSP announced by the Government and (c) international price trends. Overall, prices for agri-commodities, particularly ex of Cereals are impacted more by global price trends, as barring Cereals, procurement of most other crop output is not consistent.

Exhibit 1.Cereals have weak corelation between domestic wholesale prices and global prices



Source: JM Financial, CACP, Note: Quarterly price data from FY11 to FY16

Exhibit 2. Pulses and Oil-seeds domestic pices have high co-relation with international prices



Source: JM Financial, CACP, Note: Quarterly price data from FY11 to FY16

In addition within Cereals, global prices impact realisation for farmers through lower export earnings (for example Basmati rice which forms c.10% of India's agri-export basket has seen sustained price decline in global markets and thereby impacted realisation for Indian farmers).

We have analysed the key segments of agriculture output and estimate that almost 1/4th or 25% of the realisations have high impact from global commodity prices.

Exhibit 3.Break-up of all India agriculture output (including dairy) – Total Rs22tn

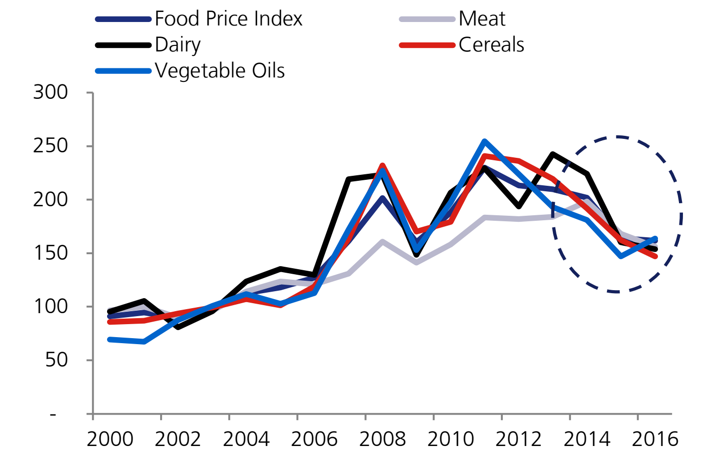
Category	Share in output (%)	Impact of global agri-prices
Rice	8.2%	Moderate*
Wheat	8.3%	Moderate
Coarse Cereals	3.0%	Moderate
Total Cereals	**19.6%**	
Pulses	4.6%	High
Oilseeds	5.6%	High
Sugar	5.1%	Low
Fibre	2.9%	High
Condiments and Spices	4.0%	High
Fruits and Vegetables	21.3%	Low
Other Crop related products	11.9%	Moderate
Total Crop	**74.8%**	
Dairy	25.2%	Moderate**
Total	100.0%	

Source: JM Financial, CMIE, JM Financial, Ref: Share as of FY16, "– Basmati rice (exports) has high impact on global prices on accunt of exports, , **- Varies from state to state

Global agri-commodity prices have been weak since past 2-3 years

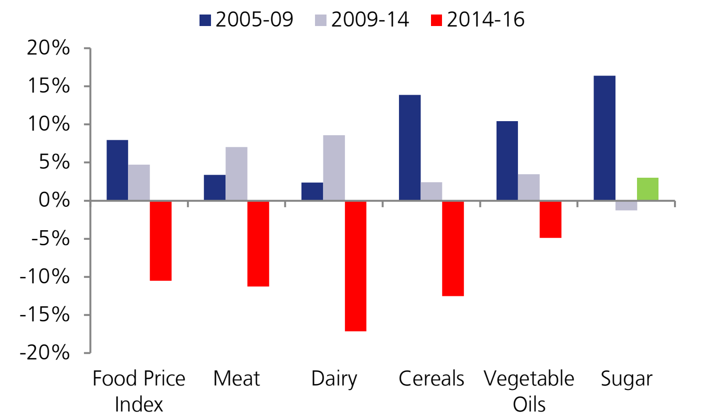
Global agri-commodity prices have been soft during the past 2-3 years largely driven by improved global food stocks and decline in oil prices (oil prices and agri-commodity prices are co-related). Overall, during CY14-16, the Food and Agriculture Organisation (FAO) global price index declined at 11% CAGR, against a sustained 5% growth over CY09-14.

Exhibit 4.Global Food prices Index (FAO index) have been soft since the past 2-3 years



Source: FAO, Food and Agriculture Organisation

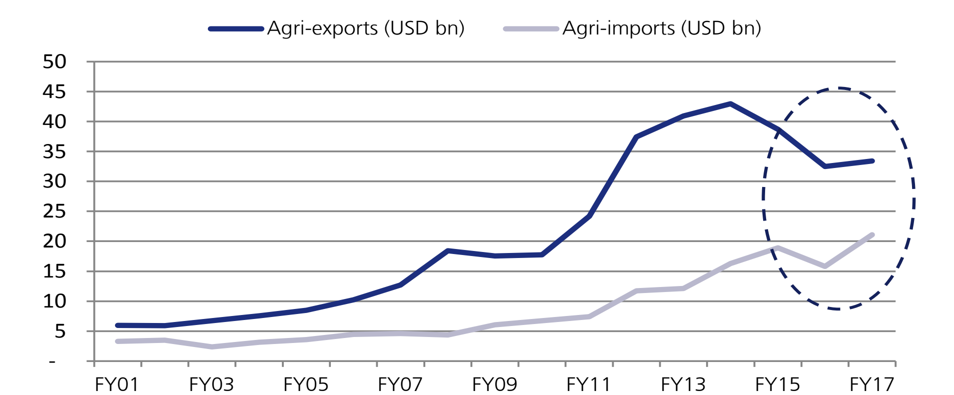
Exhibit 5.Barring sugar, most of the other agri-commodity saw deflation during past two years (CAGR %, FAO sub-index)



Source: FAO

Indian agriculture exports has also been weak during past 2 years, given decline from key countries (China, Iran) and weakening of the agri-commodity prices. The details on commodity wise exports/imports growth over the years has been shared in Appendix 1.

Exhibit 6.Agri-exports has been adversely impacted during past 2-3 years, imports have remained largely steady driven by import of pulses

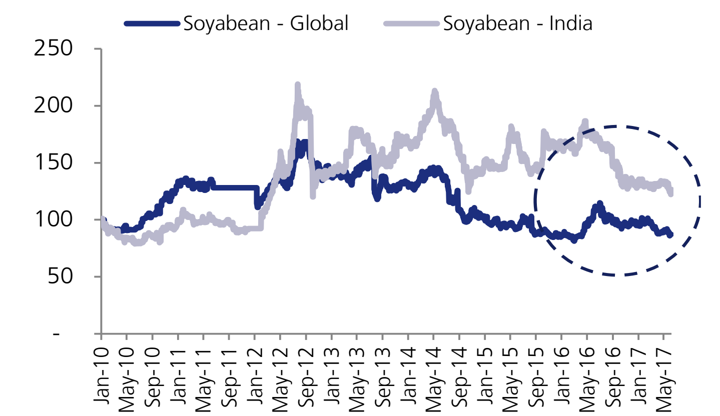


Source: CMIE

Decline in international prices of pulses and oilseeds have adversely impacted farm incomes

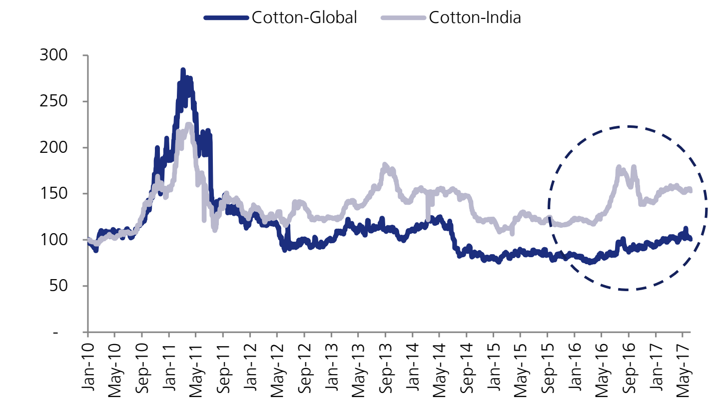
Given the strong co-relation of prices of pulses and oilseeds in Indian market with global prices, the current weak trend across pulses/oilseeds has reflected in Indian markets. Among major crops, only cotton has shown strong price trend currently and is held by the strong pricing internationally.

Exhibit 7. Soya bean price (c.45% produced in MP) has been lacklustre during the past few months (indexed to Jan-10)



Source: JM Financial, Bloomberg

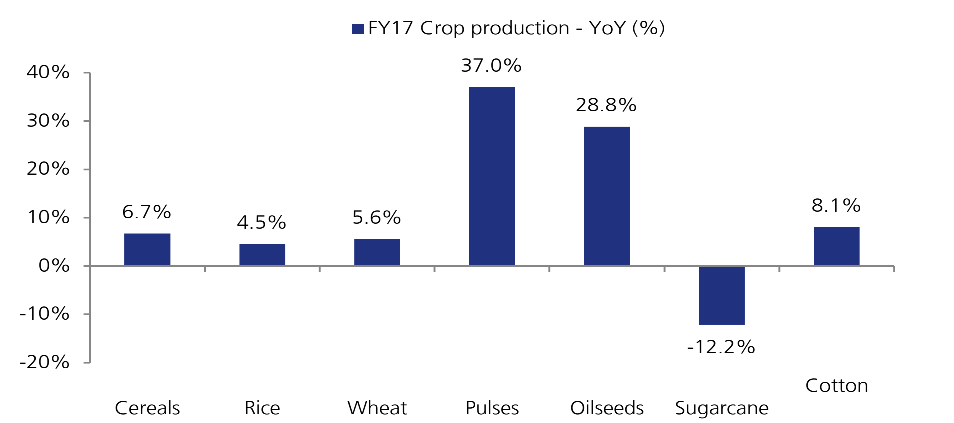
Exhibit 8.Cotton prices (also linked with global prices) however, has held up during the past few months (indexed toJan-10)



Source: JM Financial, Bloomberg

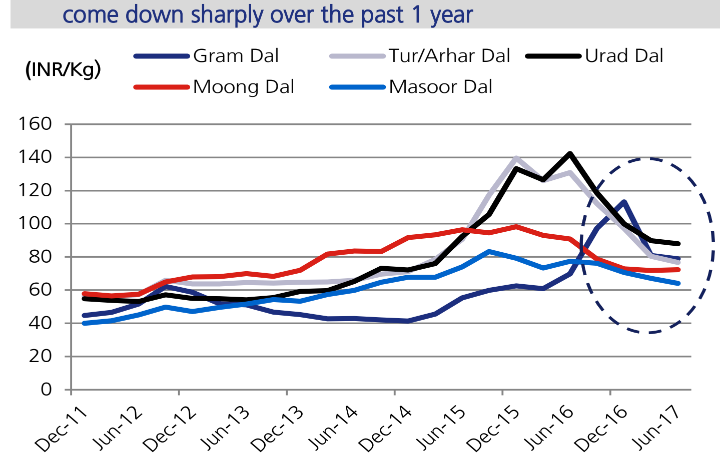
Strong domestic production of Pulses and Oilseeds during FY17 have added to price pressure

Exhibit 9.After two deficit years, normal monsoon drove a strong growth in crop production during FY17



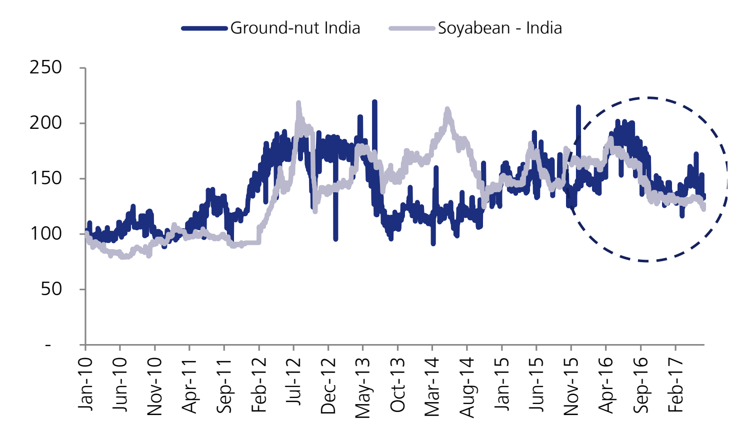
Source: CMIE

Exhibit 10.Barring Gram, domestic wholesale prices of all pulses have come down sharply over the past 1 year



Source: Minsitry of Consumer Affairs

Exhibit 11.Prices of Oil-seeds similarly have seen declining trend in prices



Source: Bloomberg, Indexed to Jan 10 (100)

Production during FY17 was strong as rains normalized after two deficit years and Pulses and Oilseed production increased by c.37%/28% YoY respectively. A strong increase in supply amidst a weak global commodity pricing environment has put pressure on prices of Pulses and Oil-seeds. However, it is to be noted that the prices still remain ahead of the MSP declared for them, and are lower from the peak they had gone during last 2 years on account of weak domestic production. Cereal prices on the other hand have largely remained steady and continue to increase over the years driven by MSP increases and strong procurement support by the Government.

Ranking of states with the agriculture output share obtained from pulses+oilseeds

We have analysed the realisation earned across states from agriculture and related activities. Among states, we find that MP, Rajasthan, Maharashtra and Gujarat lead in terms of agriculture output share from commodities (pulses+oilseeds) which have seen high price pressure in recent period.

Exhibit 12.Break-up of agricultural output per state from key agri/farm category (proxy to farmer income) – Pulses+Oilseeds and Spices have seen price deflation and thereby farmers with higher income from these crops would be more impacted

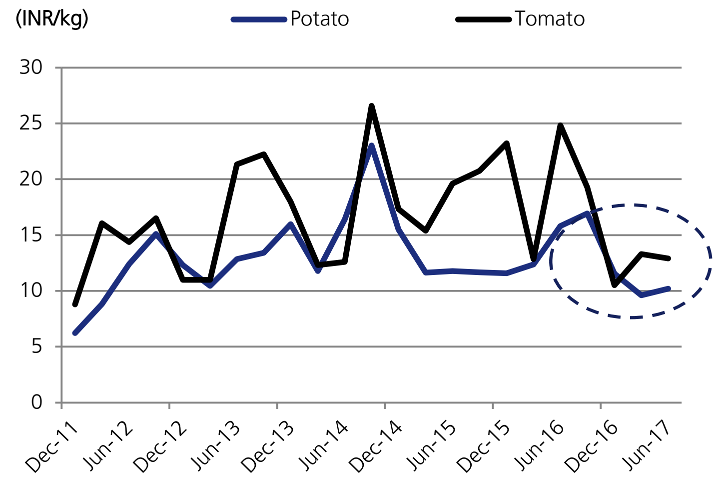
State	Total Cereals	Pulses + Oilseeds	Spices	Cotton	Sugarcane	Fruits and Vegetables	Dairy	Other crops
Madhya Pradesh	17%	26%	3%	2%	1%	19%	20%	12%
Rajasthan	17%	22%	6%	1%	0%	2%	40%	11%
Maharashtra	9%	19%	1%	8%	13%	18%	19%	13%
Gujarat	7%	17%	9%	11%	2%	20%	25%	9%
Karnataka	15%	11%	4%	2%	10%	25%	20%	13%
Andhra Pradesh	14%	7%	10%	6%	2%	21%	25%	15%
Tamil Nadu	14%	6%	3%	1%	11%	22%	29%	13%
Haryana	33%	4%	1%	5%	3%	10%	32%	12%
Uttar Pradesh	26%	4%	1%	0%	13%	18%	28%	11%
West Bengal	21%	4%	2%	-	-	41%	14%	17%
Bihar	21%	3%	0%	-	4%	32%	28%	11%
Punjab	43%	0%	1%	3%	2%	9%	32%	11%
Kerala	3%	0%	7%	0%	0%	32%	35%	23%
Others	23%	6%	6%	0%	1%	37%	19%	8%
All India	**20%**	**10%**	**4%**	**3%**	**5%**	**21%**	**25%**	**12%**

Source: CMIE, NSSO, JM Financial, This is an estimated figure based on national output and state's share

Weak trend in vegetable prices

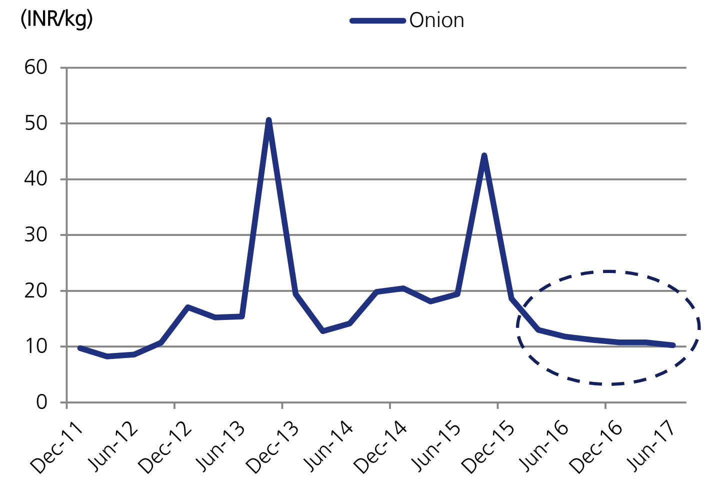
Historically, vegetable and fruit prices have been volatile and thereby farmers stored the produce (for example potatoes for 6-9 months) and then sell when prices recover and are above their production cost at least. Driven by healthy crop production, vegetable prices have remained depressed for almost a year now, thereby rendering the stored crop also as waste.

Exhibit 13.Price trend of vegetables (wholesale) – Prices have remained low for around a year now



Source: Ministry of Consumer Affairs, Whole sale price average across the country

Exhibit 14.Onion prices have seen extreme volatility in past; however it has remained steadily low for the past 1.5 years

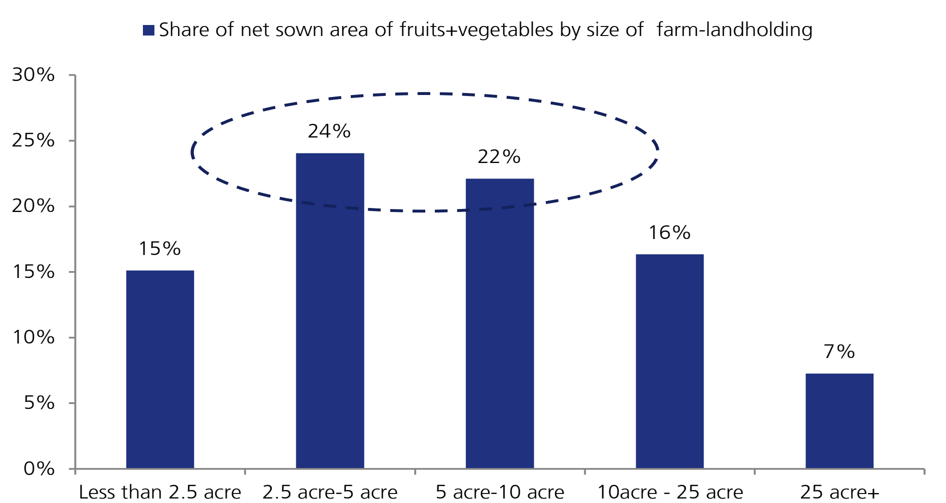


Source: Ministry of Consumer Affairs, Whole sale price average across the country

Our interactions across states highlighted that at many places onions/potatoes were purchased at INR 2-4/kg, while the cost of production and transportation to markets itself would be in the order of INR5-6/kg at least.

We had highlighted in the previous rural safari that the sustained weakness in vegetable & fruit prices would impact a smaller farmer more than the large farmer, as overall the share of fruits/vegetables produce is higher for smaller farmers, than the larger one.

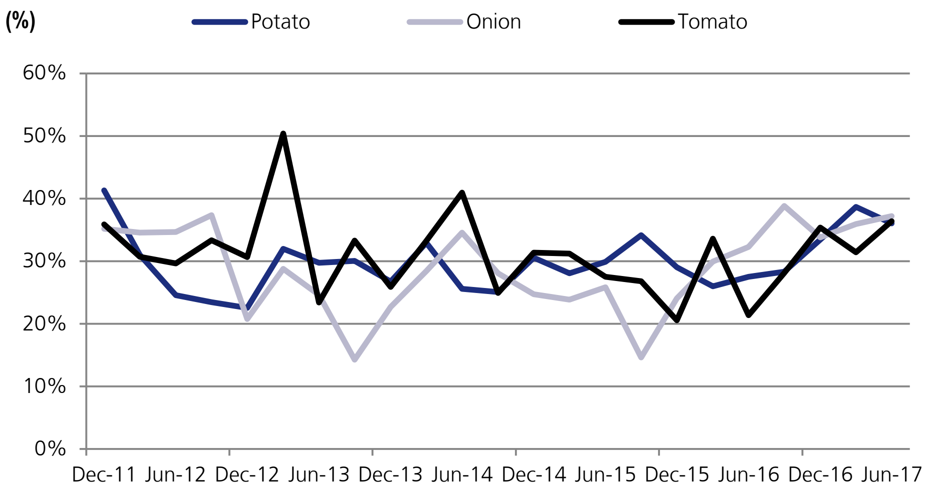
Exhibit 15.Small farmers obtain higher share of their income from fruits & vegetables



Source: NSSO

Despite low whole-sale prices of vegetables/fruits, the retail prices consistently remain high by at least 30-40% (exhibit below). Our interactions indicated that price difference (farmer and retail price) goes up to much higher to even 60-70% at some places; and thereby improvement in procurement mechanism should be a high priority for the Government.

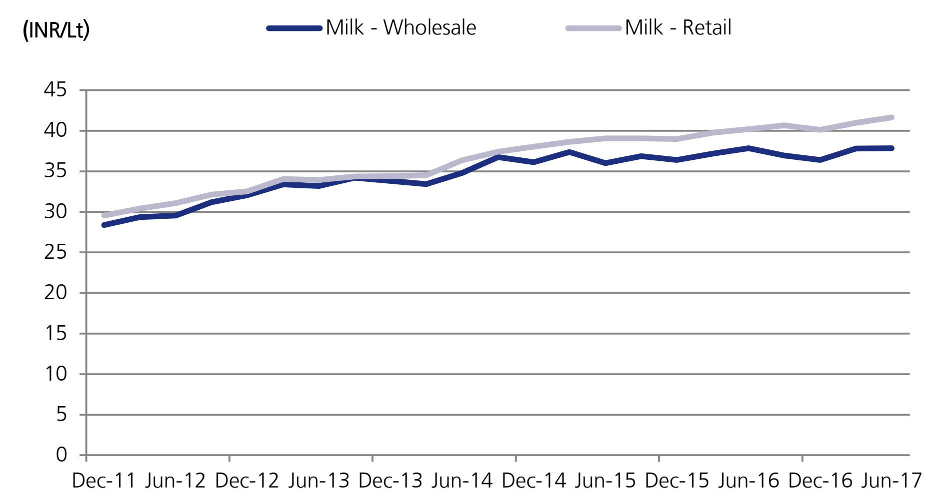
Exhibit 16.Difference in retail prices and whole-slare prices for key vegetables



Source: Ministry of Consumer Affairs, Whole sale price average across the country

Another issue which has been highlighted through the current protests is demand for raising the procurement prices of milk from an average of INR36-37/litre to INR50/litre, as the increase in costs have led to weakening of dairy economics.

Exhibit 17.Enhancement in milk procurement prices have also emerged as a key demand across the current protests – A largely flat milk procurement prices over past 3-4 years has led to deterioration in dairy economics



Source: Ministry of Consumer Affairs, Whole sale price average across the country

Increasing demand for farm loan waiver

Post the farm-waiver announced in the state of Uttar Pradesh (UP) in Apr'17, there have been increasing demands for farm loan waiver across states such as in Maharashtra (which was announced on Jun 11th) and now in Madhya Pradesh. Agri-credit at INR8.8tn amounts to 12% of the total banking credit out-standing with top 5 states accounting for 50% of the loan out-standing (exhibit below).

Exhibit 18.Scheduled commercial banks' credit outstanding (Rs bn) per state; top-5 states account for 50% of agri-credit and top-10 account for 80% of the credit

State	Agri-cultural credit outstanding (Rs bn)	SCB agri-credit as % of total credit	Share of India's total agri-cultural credit outstanding (%)
Tamil Nadu	1,153	17.1%	13.1%
Maharashtra	928	4.2%	10.5%
Uttar Pradesh	818	28.5%	9.3%
Andhra Pradesh	742	34.4%	8.4%
Karnataka	718	15.3%	8.2%
Punjab	591	31.7%	6.7%
Rajasthan	577	31.6%	6.6%
Madhya Pradesh	469	27.8%	5.3%
Kerala	452	19.9%	5.1%
Gujarat	435	11.1%	5.0%
Telangana	387	10.9%	4.4%
Haryana	355	21.3%	4.0%
West Bengal	249	7.7%	2.8%
Bihar	214	29.9%	2.4%
Delhi	123	1.3%	1.4%
Total – Top-15	**8,210**	**12.0%**	**93.4%**
All India	**8,793**	**12.1%**	**100.0%**

Source: RBI, Note: Data as of Sep-16, UP and Maharashtra have announced farm loan waivers

We believe, demand for farm waivers is likely to intensify as we get closer to the 2019 general elections and any large farm waivers are likely to further stretch state Government finances. As of now, State of UP has announced Rs360bn (44% of total out-standing loans) and news reports suggest Maharashtra Government would spend Rs300bn on the farm-loan waiver.

Exhibit 19.Average agricultural debt across states – UP tops the states in terms of agri-house-holds with debt

State	Indebted agri house-holds (mn)	Agri-households (mn)	Rural House-holds (mn)	Average debt –Rs (less than 5 acre)	Average debt across size (Rs)
Uttar Pradesh	7.9	18.0	24.1	32,800	27,300
Maharashtra	4.1	7.1	12.5	35,867	54,700
Rajasthan	4.0	6.5	8.3	74,883	70,500
Andhra Pradesh	3.3	3.6	8.7	119,800	123,400
West Bengal	3.3	6.4	14.1	23,167	17,800
Karnataka	3.3	4.2	7.7	78,783	97,200
Bihar	3.0	7.1	14.1	22,767	16,300
Madhya Pradesh	2.7	6.0	8.5	19,533	32,100
Tamil Nadu	2.7	3.2	9.4	97,383	115,900
Odisha	2.6	4.5	7.8	18,917	28,200
Telangana	2.3	2.5	4.9	83,900	93,500
Gujarat	1.7	3.9	5.9	22,817	38,100
Kerala	1.1	1.4	5.1	260,450	213,600
Chhattisgarh	1.0	2.6	3.7	6,300	10,200
Punjab	0.7	1.4	2.8	96,933	119,500
Haryana	0.7	1.6	2.6	62,067	79,000
Jharkhand	0.6	2.2	3.8	5,950	5,700
Assam	0.6	3.4	5.2	3,950	3,400
Top 19 states	45.5	85.7	149.2		-
India	**46.8**	**90.2**	**156.1**	**42,467**	**47,000**

Source: NSSO, 2013

The table below highlights the impact on state GFD if the farm loans to smaller farmers (approximately 35% of outstanding agri loan) is waived off across states. We find that GFD can increase between 80bps-450bps across states and 11 out of 14 states would breach the FRBM target of 3% of GFD.

Exhibit 20.Impact on state fiscal deficit from farm loan waiver (35% of out-sanding agri-loans); State budgets have high growth estimates for irrigation/rural capex; needs to be monitored in case farm-loans

State	Farm loan out-standing (Rs bn)	Gross Fiscal Deficit % (FY18BE)	35% of outstanding loans/State GSDP	FY18- Irrigation /Rural Spending growth – YoY (%)	Share of irrigation/rural spending in Capex growth (%)
Tamil Nadu	1,153	2.9%	2.7%	92.3%	9.2%
Maharashtra	928	1.5%	1.3%	7.8%	26.1%
Uttar Pradesh*	818	3.9%	2.2%	-	-
Andhra Pradesh	742	3.0%	3.4%	62.1%	52.2%
Karnataka	718	2.6%	2.0%	46.9%	39.3%
Punjab*	591	2.9%	4.5%	-	-
Rajasthan	577	3.0%	2.4%	22.4%	33.2%
Madhya Pradesh	469	3.5%	2.2%	13.5%	26.5%
Kerala	452	3.4%	2.1%	42.4%	8.0%
Gujarat	435	1.8%	1.2%	16.5%	31.8%
Telangana	387	3.5%	1.8%	3.9%	40.7%
Haryana	355	2.8%	2.0%	177.9%	15.1%
West Bengal	249	1.7%	0.8%	41.6%	15.6%
Bihar	214	2.9%	1.2%	31.9%	27.2%

Source: JM Financial, State Budgets, RBI, *- FY17BE for UP and Punjab from the RBI study

Increased investments during FY18 to drive non-farm income growth

Government allocation across select projects around rural scheme have increased in FY18

Overall, among large central schemes, there has been 11% higher allocation in FY18, after a 24% increase in FY17. On an incremental basis, some schemes such as PMAY-Rural (housing), Swachh Bharat (sanitation), Green Revolution (crops), DDUGJY (rural electrification) and NRLM (rural jobs) have seen high growth.

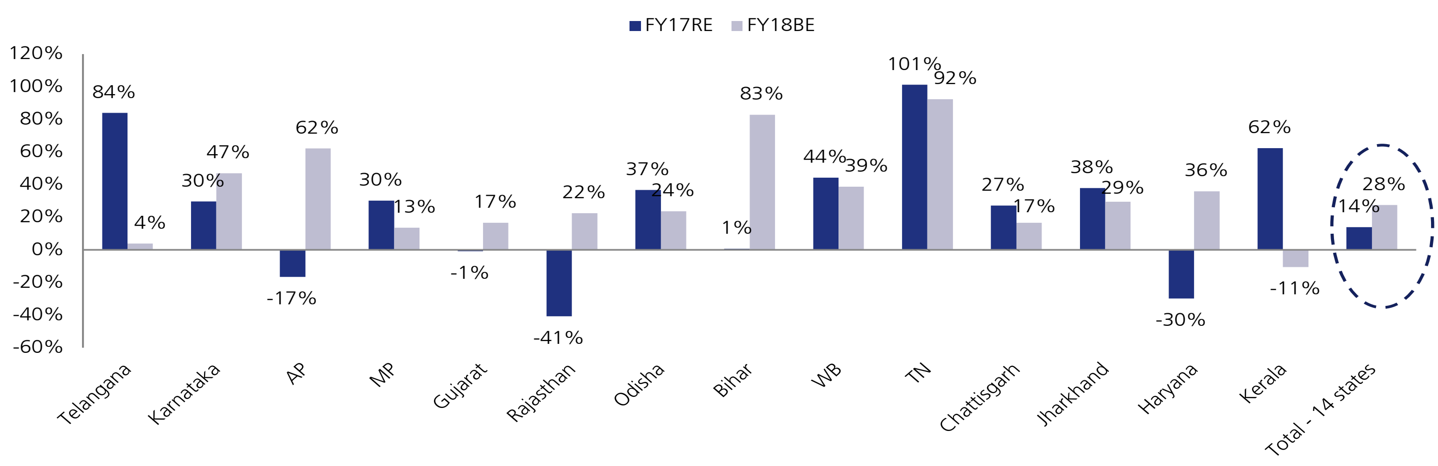
Among other schemes, MGNREGA allocation has been largely flat after strong growth in FY17, PMGSY has seen flat allocation, while central allocation on crop insurance is lower after allocation of Rs 132bn (almost 2.5x of budgeted amount). As we have seen in the state budget analysis, spending on rural areas/agriculture has been the focus of the state government's as well; we believe, the combined spend of centre+state should accelerate infrastructure/job creation activities and thereby non-farm income during FY18.

Exhibit 21.Outlay on central schemes

	Allocation – Rs bn				YoY (%)			
Schemes (Rs bn)	FY16	FY17BE	FY17RE	FY18BE	FY17 BE	FY17 RE	FY18 BE	FY16-18 BE -CAGR (%)
MGNREGA	373	385	475	480	3.1%	27.2%	1.1%	13.4%
PMAY: Rural	101	150	160	230	48.3%	58.2%	43.8%	50.8%
National Rural Health Mission	183	181	195	212	-0.9%	6.6%	8.9%	7.7%
Pradhan Mantri Gram Sadak Yojna	183	190	190	190	3.9%	3.9%	0.0%	1.9%
Interest subsidy for short-term credit to farmers	130	150	136	150	15.4%	4.8%	10.1%	7.4%
Swachh Bharat Mission (SBM) – Rural	67	90	105	139	34.3%	56.6%	32.8%	44.3%
Green Revolution	98	126	104	137	28.5%	6.0%	32.6%	18.6%
Crop Insurance Scheme	30	55	132	90	84.4%	343.8%	-32.0%	73.7%
Pradhan Mantri Krishi Sinchai Yojana	78	58	52	74	-25.9%	-33.3%	42.2%	-2.6%
National Rural Drinking Water Mission	44	50	60	61	14.4%	37.3%	0.8%	17.7%
Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)	45	30	34	48	-33.3%	-25.6%	43.7%	3.4%
National Rural Livelihood Mission	25	30	30	45	19.3%	19.3%	50.0%	33.8%
White Revolution	9	11	13	16	21.5%	40.0%	24.5%	32.1%
Blue Revolution	2	2	4	4	23.5%	96.0%	2.3%	41.6%
Total	**1,368**	**1,508**	**1,689**	**1,877**	**10.3%**	**23.5%**	**11.1%**	**17.1%**

Source: Union Budget, JM Financial

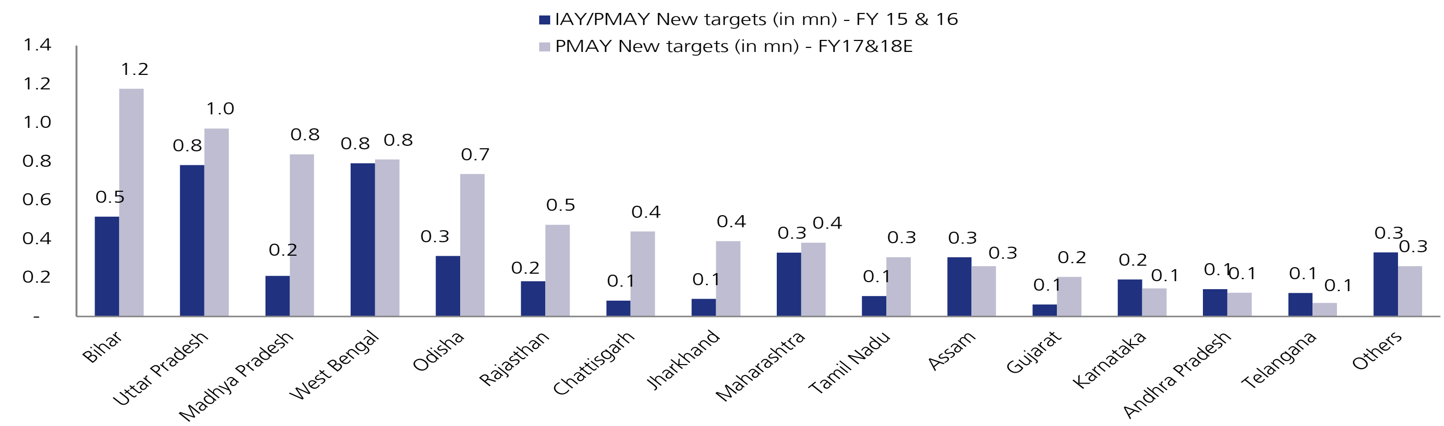
Exhibit 22.Increase in Irrigation Spending during FY18 – Capex spend in FY18 up by 28% YoY (FY17: 14%) on irrigation by states; along with Centre's spending on PMKSY would boost irrigation efforts (particularly micro-irrigation)



Source: State Budgets, JM Financial, Note:States arranged in decreasing order of absolute spending (FY18, Rs bn) for irrigation capital expenditure

A strong push towards rural housing through PM Awas Yojana is likely to boost non-farm income during FY18.

Exhibit 23.Rural Housing – PMAY target to build 7.6n houses in FY18, up from 3.2mn houses built in FY17 (from earlier schemes) – Construction related income thereby to accelerate during FY18 – Amount per house construction raised from Rs70,000 to 120,000



Source: PMAY, JM Financial: Note: Past allocations on new Indira Awas Yojana (IAY) house targets—FY13 & FY14 (5.3mn), FY15 & FY16 (4.2mn), FY17 & FY18 (7.3mn). During FY17, the government focused on completing earlier IAY houses and built c.0.32mn houses, therefore combined targets of PMAY (FY17 & 18) would be constructed in FY18 itself

Appendix 1: India's farm exports/import trend

Exhibit 24.Break-up of key items in agri-exports and the trend

Agricultural & allied products	Exports - FY 17		CAGR (%)	
	USD mn	Share (%)	FY10-15	FY15-17
Marine products	5,917	17.7%	21.4%	2.4%
Rice	5,772	17.3%	27.0%	-9.8%
Meat & preparations	4,052	12.1%	30.0%	-6.3%
Spices	2,887	8.6%	13.3%	5.9%
Cotton raw including waste	1,632	4.9%	16.4%	-5.0%
Fresh vegetables & Fruits	1,593	4.8%	7.7%	8.2%
Oilseeds	1,361	4.1%	22.9%	-7.8%
Sugar & molasses	1,334	4.0%	101.2%	13.9%
Tobacco	961	2.9%	0.9%	0.1%
Coffee	845	2.5%	16.6%	1.3%
Groundnuts	813	2.4%	15.1%	2.1%
Tea	734	2.2%	1.9%	2.5%
Others	5,514	16.5%	27.2%	-23.1%
Total exports	**33,415**	**100.0%**	**24.7%**	**-4.8%**

Source: CMIE, JM Financial

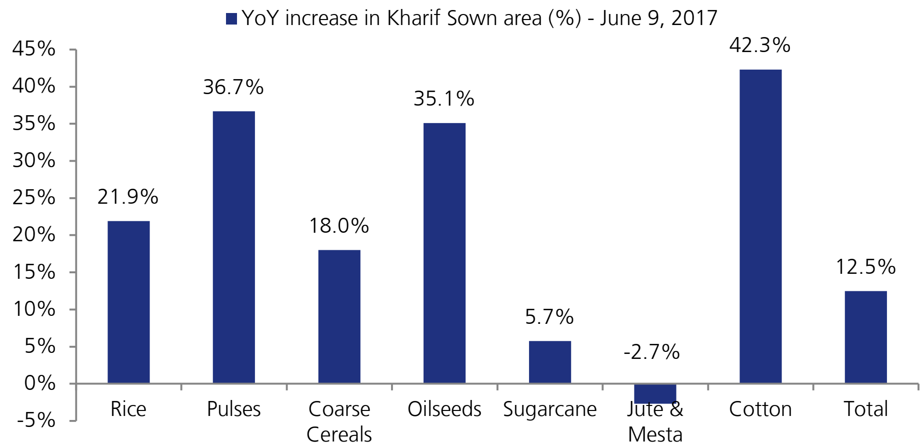
Exhibit 25.Break-up of key items in agri-imports and the trend

	Imports - FY 17		CAGR (%)	
	USD mn	Share (%)	FY10-15	FY15-17
Vegetable oils (edible)	10,888	42.6%	13.7%	1.3%
Pulses	4,252	16.6%	6.2%	23.4%
Fresh fruits	1,676	6.5%	20.9%	3.5%
Cashew	1,346	5.3%	10.9%	11.7%
Wheat	1,268	5.0%	-27.2%	1026.2%
Sugar and molasses	1,025	4.0%	-13.6%	30.2%
Cotton raw including waste	945	3.7%	14.1%	36.5%
Spices	858	3.4%	18.9%	9.3%
Natural rubber	652	2.5%	19.3%	-10.6%
Alcoholic beverages	534	2.1%	-	14.1%
Others	2,139	8.4%	-3.9%	23.5%
Total imports	25,581	**100.0%**	**12.4%**	**10.2%**

Source: CMIE, JM Financial

Appendix 2: Kharif sowing trend

Exhibit 26.Kharif sowing progress – A healthy start to the FY18 kharif sowing season



Source: PIB

APPENDIX I

JM Financial Institutional Securities Limited

Corporate Identity Number: U65192MH1995PLC092522
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SEBI Registration Nos.: BSE - INZ010012532, NSE - INZ230012536 and MSEI - INZ260012539, Research Analyst – INH000000610
Registered Office: 7th Floor, Cnergy, Appasaheb Marathe Marg, Prabhadevi, Mumbai 400 025, India.
Board: +9122 6630 3030 | Fax: +91 22 6630 3488 | Email: jmfinancial.research@jmfl.com | www.jmfl.com
Compliance Officer: Mr. Sunny Shah | Tel: +91 22 6630 3383 | Email: sunny.shah@jmfl.com

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