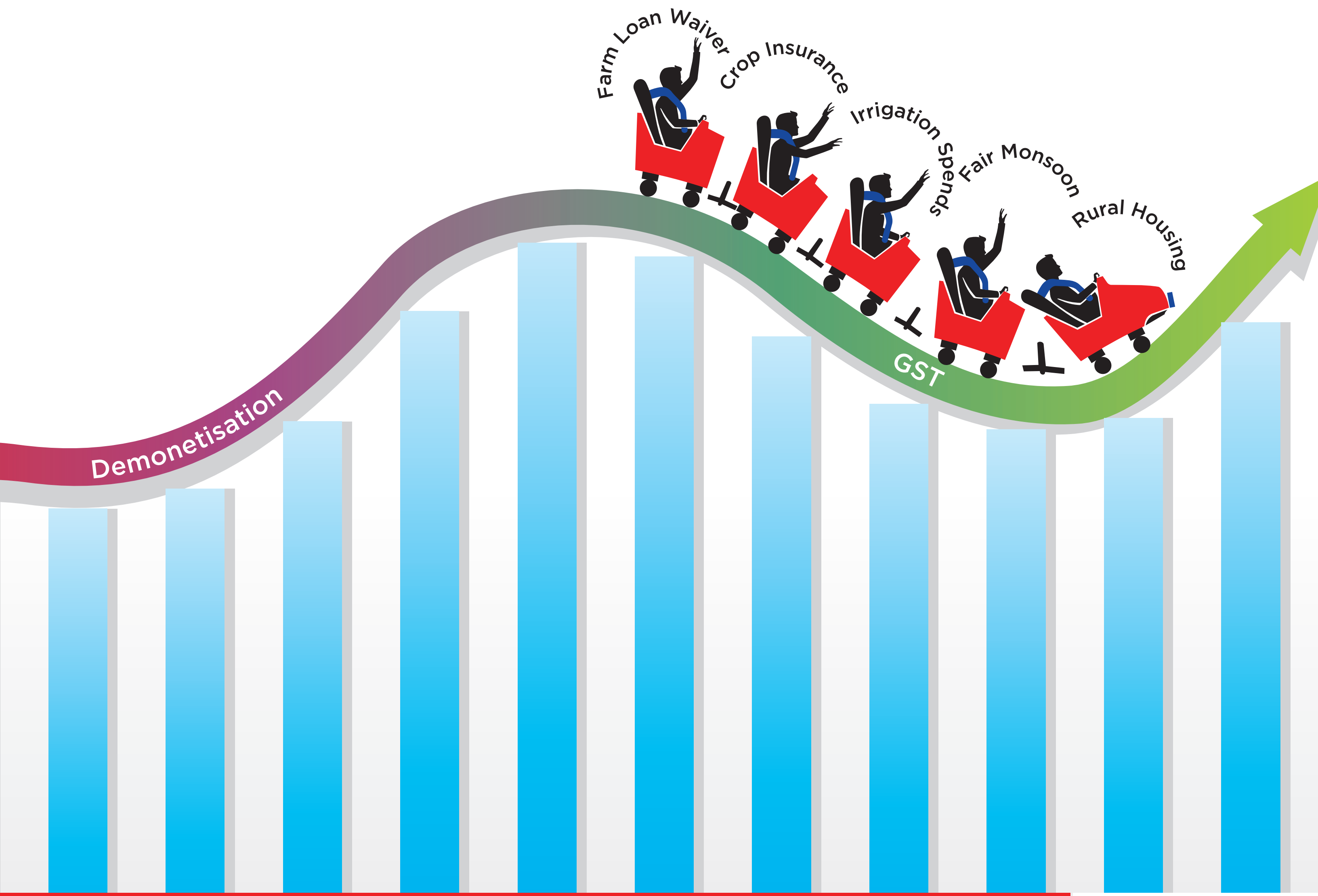
30th October 2017

JM FINANCIAL



Rural Safari VI
Confluence of factors to drive a marginal uptick

In our 6th edition of Rural Safari, we assess near term demand outlook in rural India post a fair monsoon, and examine the structural shifts underway in the rural landscape. Our analysts travelled 3,000 kms+ across 11 states accounting for 73% of agri-GDP of the country.

JM Financial Institutional Securities Limited

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India Strategy – Rural Safari – VI

Confluence of factors to drive a marginal uptick

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Our periodic forays to rural India have enabled us to read the near term demand outlook in rural India while providing valuable clues on medium/long term shifts underway. In this context, our latest survey (Sep-Oct'17) indicates that the final output of the Kharif (Jun-Oct) crop could be higher than the governments' own 1st estimate. Barring central India, water levels are adequate, pointing to a healthy Rabi (Nov-April) crop output as well. Despite the backdrop of weak global agri-commodity pricing, the resilience in the prices of vegetables (25-30% of agri income) and cereals (20%+) should ensure high-single-digit growth in farm income in FY18. The only areas to watch out for are the prices of pulses and oilseeds, which were the trigger for farmer-led protests during Jun-Jul'17. On non-farm income (2/3rd of rural income), (a) sand mining restrictions, (b) GST-led disruptions and (c) limits on cash transactions have moderated economic activity levels during 1HFY18. We now expect a gradual revival during 2HFY18 backed by Government led spending, removal of restrictions (sand mining) and easing of GST adoption. Real estate activity, however, has weakened further and prices have declined even in regions that were earlier resilient. Despite this apparent waning of the wealth effect and slower than expected growth in non-farm income in 1H, our hypothesis is for a gradual, albeit not accelerating, pick up in rural consumption in 2H led by the modest farm income growth supported by higher government wages, higher credit availability and farm loan waivers. Amongst others, we observed (a) an accelerated shift from unorganised to organised channels, (b) rising use of broadband and (c) higher penetration of credit. Select rural stocks we cover in the report are Coromandel International (NR), Finolex Industries (NR), KCP Limited (NR), Mahindra Financial (BUY) and V-Mart (NR).

- **Modest decline in Kharif production during FY18:** Monsoon during 2017 came in 5.5% below LPA and the 1st advanced estimate of Kharif production indicates a YoY decline across crops- 2%/8%/3% for Paddy/Pulses&Oilseeds/Cotton respectively. However, our survey indicates a better outcome since barring few states such as Madhya Pradesh and select regions in North India, crop production decline is likely to be limited (exhibit 2). Supported by better prices of vegetable and cereals, and expected growth in the Rabi crop output is likely to lead to overall FY18 farm income growth in high single digits.

- **Non-farm income and wealth effect:** Rural housing under PMAY (G) has started strongly, with construction initiated for 58% of targeted house-holds by mid-Oct'17. Sand mining restrictions (UP, Bihar, Telangana and TN) in 1HFY18 have slackened the construction pace; however, the easing of sand mining restrictions (from Oct'17) is likely to accelerate construction in 2HFY18. Our survey indicates that land prices as well as property transaction volumes have declined further at most places (exhibit 12). Stamps and registration revenue for states accounts for 4-6% of total state revenue receipts, and our study of 17 state budgets indicated that states have budgeted 11% YoY growth in property tax-related revenue in FY18 vs. 0.3% YoY in FY17RE, and needs to be watched..

- **Shift from unorganised to organised channel aided by GST:** The adoption of GST among SMEs is likely to be gradual and the low compliance of 55%/45% of filings for July'17/Aug'17 reflects adoption challenges. We believe as the Government modifies rules and information dissemination improves, the "noise" from GST would abate and businesses could revert to normalcy. Nevertheless, the increased financialisation and streamlining of the economy, higher credit availability and restrictions on cash transactions are clearly benefiting the organised segments even in Tier II and III towns.

- **Other takeaways:** (a) Run-rate of recoveries from rural financiers/microfinance has improved while disbursements are modest, (b) Increased financing penetration in two-wheelers and passenger vehicles from rural areas as "local financiers" step back, (c) Growth in cotton sowing (19% YoY), higher pest attacks point to higher volume growth for agro-chemicals. (d) Implementation of DBT in fertilisers (FY19) could be disruptive to farming and the progress needs to be monitored.

Link for our previous reports

Rural Safari I

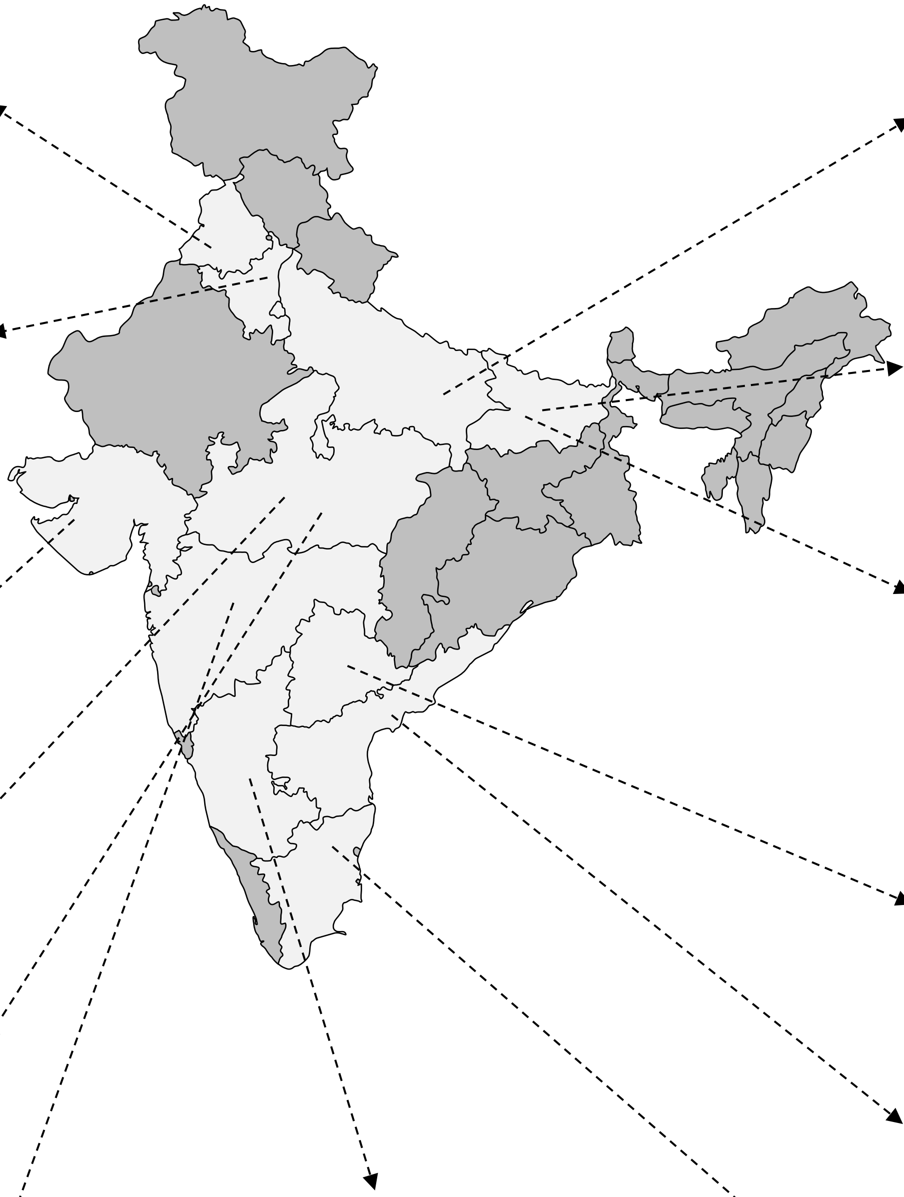
Rural Safari II

Rural Safari III

Rural Safari IV

Rural Safari-V

Rural Safari: 11 states, 15 districts, 3,000+ km — we travelled to rural regions around the following cities/towns



Bhatinda
Bhatinda is the fifth-largest city in Southern Punjab, in the Malwa belt. The district has thermal power plants, cement plants and also a large oil refinery. Key crops: Cotton, wheat and vegetables.

Kurukshetra
Kurukshetra is among 16 districts chosen by the government for the pilot implementation of DBT in fertilizers. This is also the site of the war in the epic narrative—the Mahabharata. Key crops: Paddy, wheat, gram and vegetables.

Jamnagar
Jamnagar is the fifth-largest city of Gujarat and is famous for Reliance's oil refinery. It is part of the Saurashtra region of Gujarat. Rainfall has been mixed over the district leading to irregular crop output. Key crops: Cotton, groundnut and wheat.

Raisen & Sehore
Raisen is a rural district about 50km from capital city Bhopal (78% rural population). It has many tourist attractions including Buddhist Sanchi Stupa. Wheat, Soyabean, Rice, Gram, Lentil, Maize, Vegetables are the key crop. Key crops at Sehore district, adjacent to Bhopal are Wheat, Gram, Lentil, Peas and Linseed

Indore
Indore is the most populous city of Madhya Pradesh. Indore has been selected as one of the 100 Indian cities to be developed as a smart city under the Smart Cities Mission. Key crops: Soya bean, wheat, potato, maize and gram.

Aurangabad/Ahmednagar
Located near the Godavari Basin, agriculture in Aurangabad is well diversified with wide range of crops such as jowar, pearl millet, wheat, gram, soya bean and cotton. Ahmednagar is a rural district of Maharashtra (80% rural population). Key crops: Jowar, sugarcane, wheat, gram and cotton.

Tumkur
Tumkur is known for the production of Ragi, Maize, Rice, Ground-nut, fruits and vegetables; these are key crops in the region. Improvement in irrigation, better road connectivity and improving non-agri income has supported rural prosperity in the last decade. Tumkur also has one of the 9 operational Mega Food Park stores, run by Future Consumer.

Varanasi
Varanasi is the largest trading hub for agri-commodities in eastern UP and a famous religious tourist destination. Key crops: Wheat, paddy, bajra, arhar, sugarcane and potato.

Patna
Patna, the capital of Bihar, is a city with many religious attractions. Of the total population, 57% in the district is rural. Key crops: Paddy, wheat, arhar, gram, bajra, barley and chillies.

Bhojpur
Bhojpur, a famous district of Bihar, is well-known for its regional language Bhojpuri, which is spoken by over 40mn people. It played a significant role during India's freedom struggle. Key crops: Wheat, paddy and gram.

Warangal
It is the second-largest city in Telangana. Agriculture and trading are the main economic activities. The city hosts Asia's second-largest grain market. Key crops: Paddy, cotton, mango and wheat.

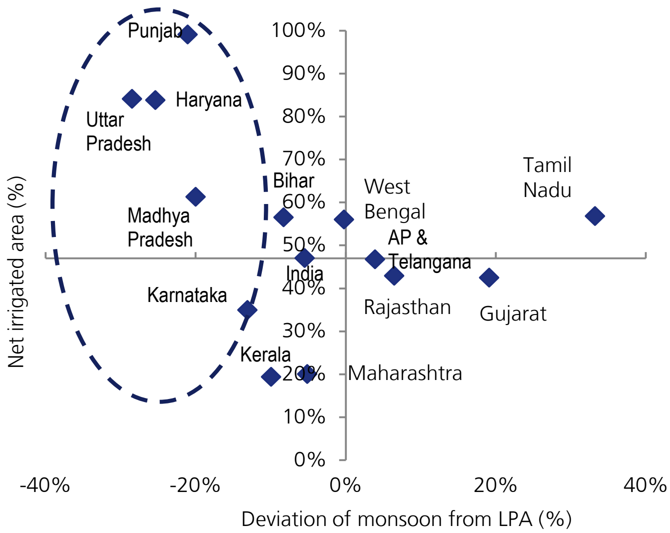
Guntur & Vijayawada
Guntur is the largest producer of chilies in India. Vijayawada, a city on the banks of the Krishna River, is also known as "The Business Capital of Andhra Pradesh". Key crops: Paddy, cotton, chillies and maize.

Tiruvallur
Tiruvallur is located on the banks of the Cooum River about 42 km (26 mi) northwest of Chennai, the capital city of Tamil Nadu. It is well known because of the Veera Raghavar temple, which is one of the 108 sacred shrines of Vaishnavites. Key crops: Paddy, jowar, maize, gram, sugarcane, chillies and coconut.

Source: JM Financial

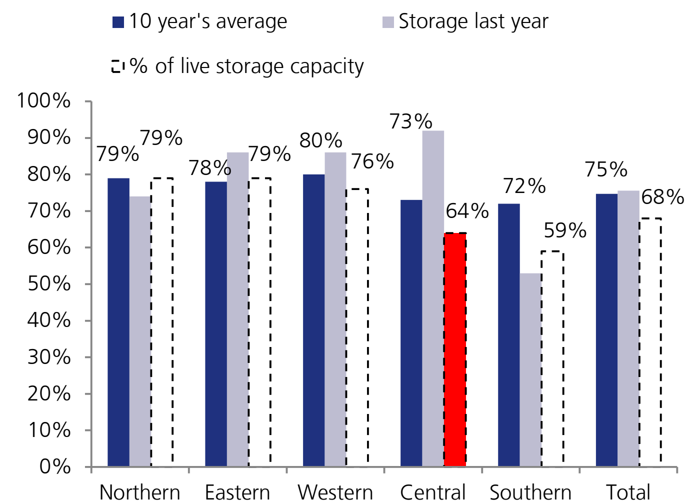
Focus Charts……

Exhibit 1. Monsoon 2017 - Most of the states with rain deficit have good irrigation coverage, thereby limiting adverse impact



Source: IMD, NSSO

Exhibit 2. Water Levels - Barring Central India, water levels at other regions is reasonable for a good Rabi (Nov-Apr) crop



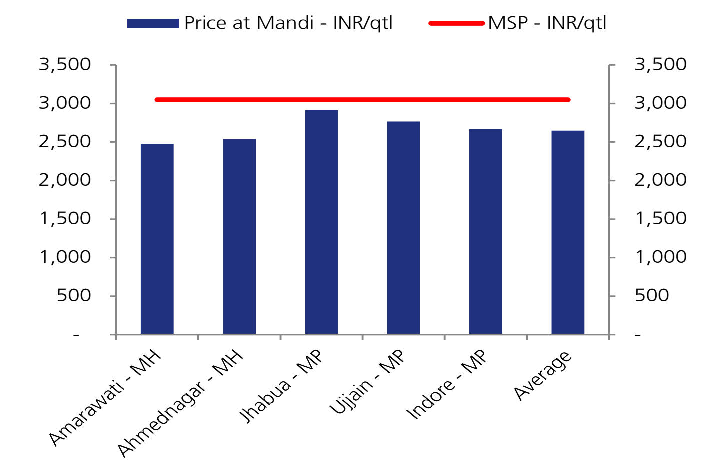
Source: CMIE

Exhibit 3. What did we gather from the states visited during Rural Safari – Overall modest growth in farm income during FY18

State	Kharif sowing - YoY (%) - Aggregate	Rainfall deficit/ahead of LPA (%)	Irrigation Cover %	Farm Income - YoY (%)	Comments - Farm productivity/income
Gujarat	0.0%	19%	43%	Strong	A good rainfall after three deficit years drove 10% YoY increase in Cotton sowing, Output from other crops also improved YoY, Healthy water levels at present leads to strong optimism for the rabi season
Andhra Pradesh	-5.9%	19%	47%	Strong	AP saw a major shift towards cotton (sowing up by 37% YoY) from chilli (spice), Rainfall initially weak but saw good rains mid-August onwards driving healthy crop output
Maharashtra	-0.8%	-5%	20%	Modest	Central/Eastern Maharashtra faced long dry spell in August, but revival of rains in September is likely to aid crop output in the state (Sowing – YoY (%) Cotton+11%, Sugarcane +49%)
Punjab	0.1%	-21%	99%	Modest	Massive increase in cotton sowing (+50% YoY), rain deficit in the state overall, but being a well irrigated state limited adverse impact on yield. Pest attacks on cotton could lower cotton yield
Haryana	0.2%	-25%	84%	Modest	Similar to Punjab with 32% YoY growth in sowing of cotton
Telangana	1.7%	-15%	47%	Modest	Telangana reported strong sowing growth in cotton (51% YoY) replacing pulses and coarse cereals, while rainfall has been weak in the state leading to overall 15% deficit during the season
Bihar	2.8%	-8%	57%	⇔	Bihar faced adverse impact from the floods as well as partial yield decline from the long dry spell of rain in August/September.
Uttar Pradesh	-1.5%	-29%	84%	⇔	UP has seen high deficit in rainfall (-29% below LPA) but being a well irrigated state, the impact is likely to be contained
Madhya Pradesh	1.8%	-20%	61%	Decline	MP has seen high rain deficit (20% below LPA) and with limited irrigation coverage (East MP), yield decline is expected to be high (more than 10% decline). In the Western MP on the other hand, high rains during late September have adversely impacted the Soyabean crop which was under harvesting.
Karnataka	-13.4%	-13%	35%	Decline	Karnataka started with a high rain deficit leading to decline in sowing by 13% YoY, however rainfall has been good during late September/early October, thereby reviving optimism on Rabi
Tamil Nadu	-15.9%	33%	57%	Decline	Similar to Karnataka, sowing started on a very weak note in Tamil Nadu due to low rainfall initially and then there has been strong rainfall from mid of July leading to overall rains ahead by 33% of LPA.

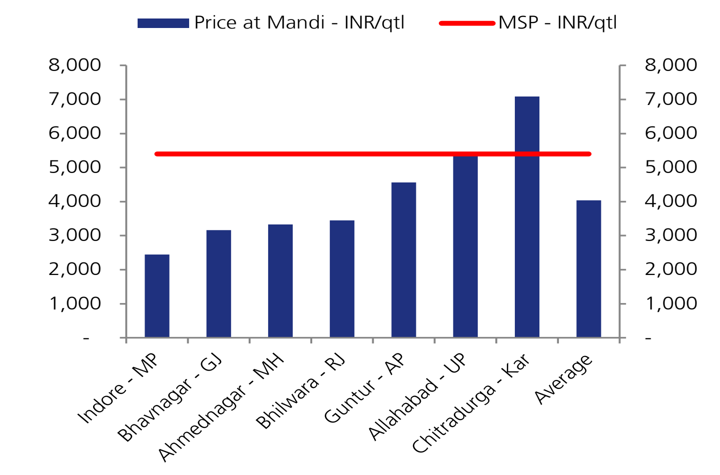
Source: JM Financial, Legend : Strong : Modest ⇔ : Flat : Decline, The comparisons are over similar period last year

Exhibit 4. Price trend to monitor - Current prices of Soyabean at various Mandis below MSP (10-20%)



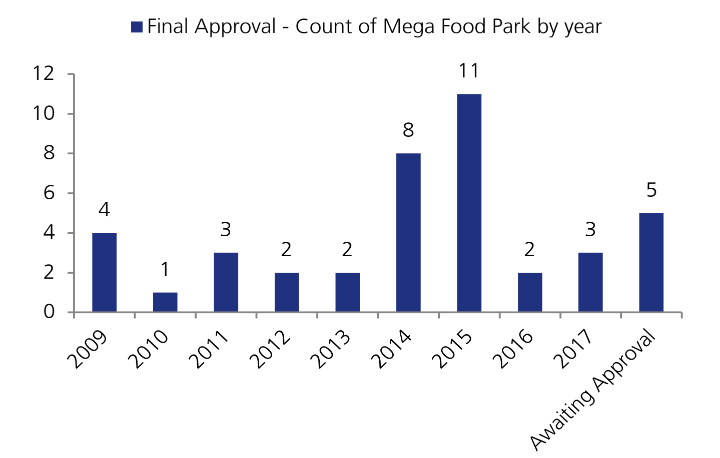
Source: Agmarknet, Average prices between Oct 1-Oct 17 2017

Exhibit 5. Price trend to monitor – Current prices of Urad (Pulse), selling down (30-40%) from MSP



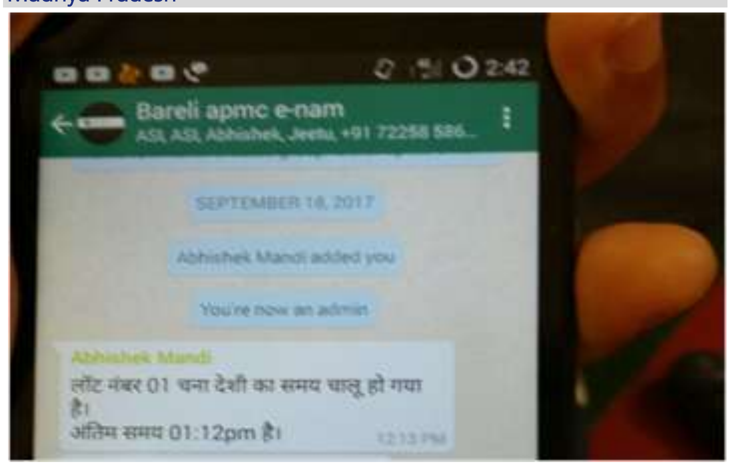
Source: Agmarknet, Average prices between Oct 1-Oct 17, 2017

Exhibit 6. Diversification to aid farm income – 9 mega food parks (MFP) operational including at Tumkur where we visited



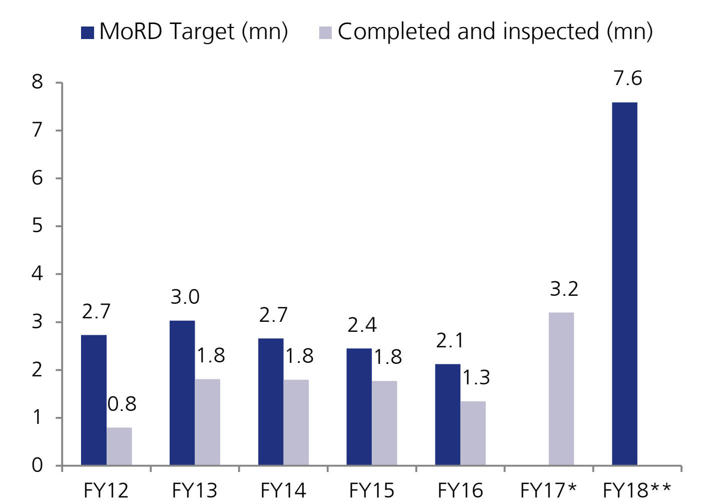
Source: MoFPI, Total project cost of INR50bn,MFPs established to encourage food processing and horticulture

Exhibit 7. Penetration of mobile broad-band likely to drive efficiency benefits in rural India – Online auction aided by whatsapp at Bareli, Madhya Pradesh



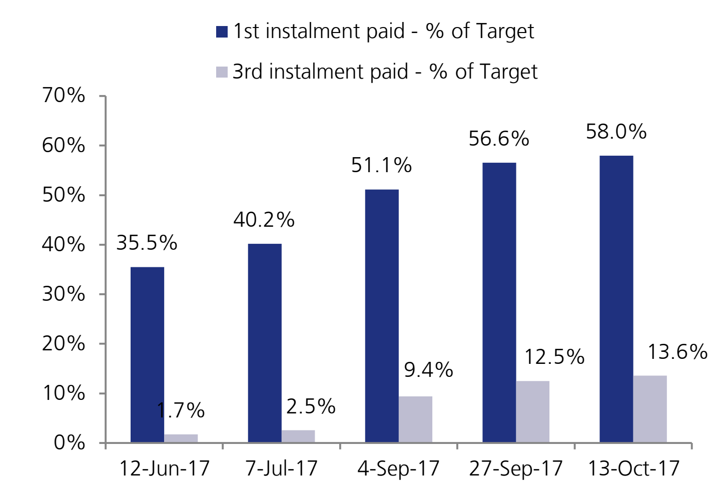
Source: JM Financial

Exhibit 8. Non-Farm income drivers, Rural Housing – Target for house construction under PMAY, more than 2x of previous year levels



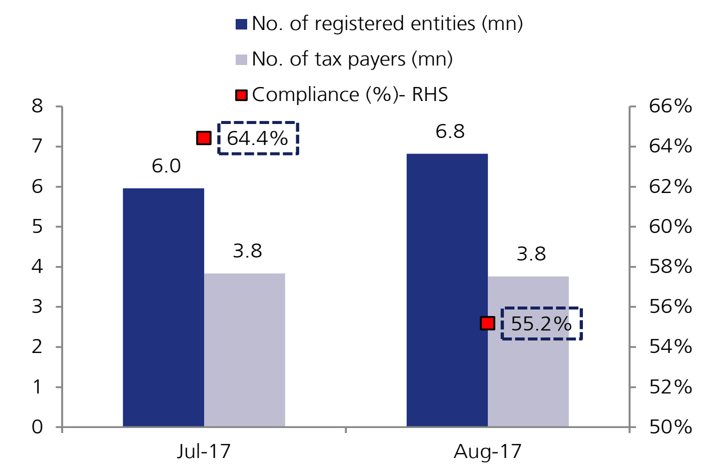
Source: IAY, IAY, * - Completed the incomplete houses from earlier years under previous scheme, Indira Awas Yojana, **- Combined target of FY17+18 is to be constructed during FY18

Exhibit 9. Rural Housing progress - Reasonable progress on beginning of construction during FY18, revival of sand mining in UP/Bihar to accelerate construction during 2HFY18



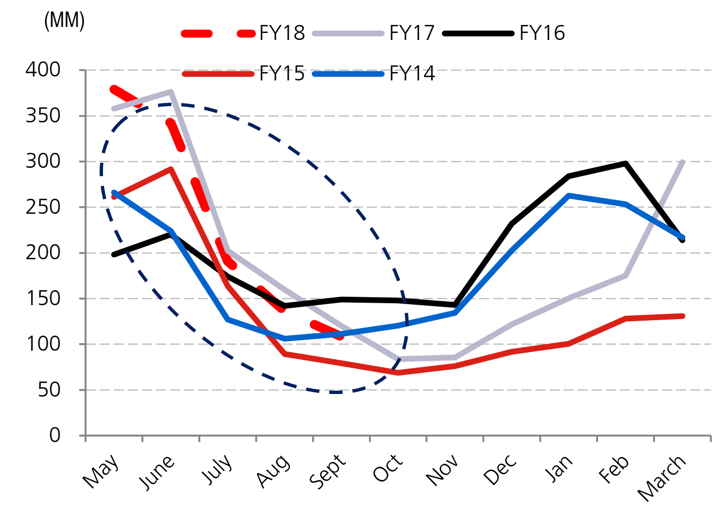
Source: IAY

Exhibit 10. GST implementation and adoption challenges witnessed during visit - compliance has been weak for the first two months



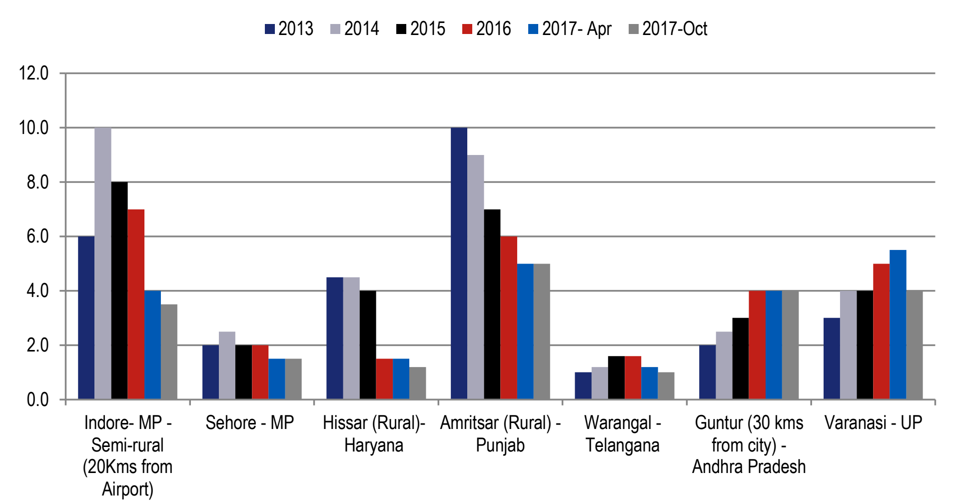
Source: PIB

Exhibit 11. MGNREGA (mn man days) tracks last year trend



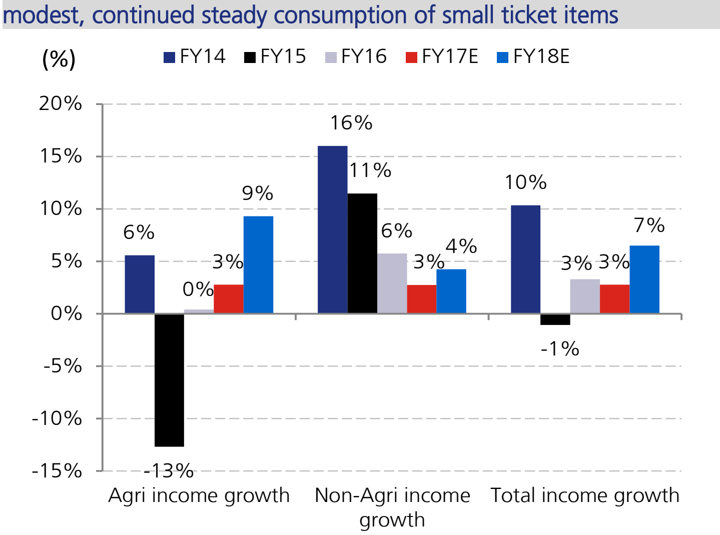
Source: MGNREGA

Exhibit 12. Land price trend (INR mn/acre) – Continues to remain weak and limits revival of large scale consumption (as tracked during JM Financial survey)



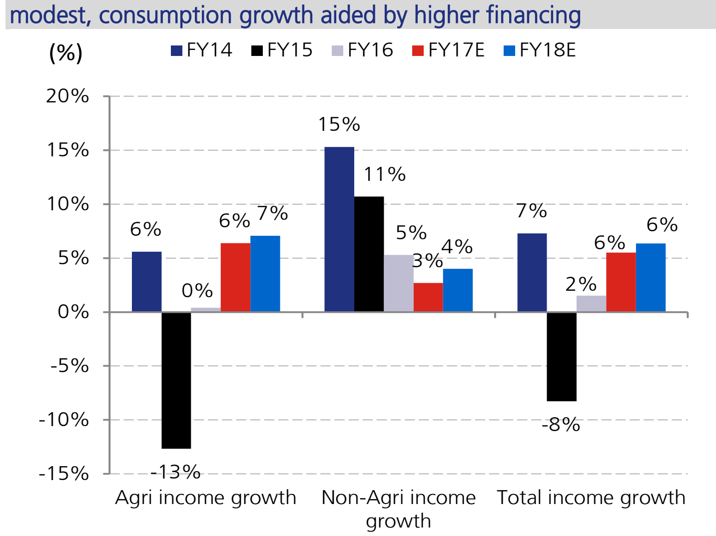
Source: JM Financial

Exhibit 13. Income growth for a small farmer (2.7 acre) remains modest, continued steady consumption of small ticket items



Source: JM Financial

Exhibit 14. Income growth for a large farmer (15 acre) remains modest, consumption growth aided by higher financing



Source: JM Financial

Exhibit 15. Snapshot from current areas of visit; comparison with previous season

	Gujarat	Punjab	Haryana	UP	Bihar	Madhya Pradesh		Maharashtra		Karnataka	Andhra/Telangana		Tamil Nadu
	Jamnagar	Bhatinda	Kuruk-shetra	Varanasi	Bhojpur	Sehore	Raisen	Aurangabad	Ahmed-nagar	Tumkur	Vijayawada/ Guntur	Warangal	Tiruvallur
Main crops*	Cotton, Gram, Wheat, Ground-nut	Wheat, Paddy, Cotton, Potato	Wheat, Paddy, Cotton, Maize, Oil-seeds	Wheat, Paddy, Bajra, Arhar, Sugarcane	Wheat, Paddy, Gram,	Wheat, Gram, Soya Bean,	Paddy,Soya bean, Wheat, Potato, Maize, Gram	Jowar, Paddy, Soya bean, Gram	Maize, Cotton, Paddy, Sugarcane	Maize, Arcanut, Paddy, Fruits and Vegetables	Paddy, Cotton, Maize, Banana, Chilly	Paddy, Cotton, Green Gram, Castor, Red Gram, Orange	Paddy, Jowar, Maize, Gram, Sugarcane, Chillies, Coconut
Move towards cash crops	Strong	Strong	Strong	Strong	Flat	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
Yield over last year	Strong	Modest	Modest	Modest	Modest	Decline	Decline	Modest	Modest	Decline	Strong	Modest	Decline
Price (non-MSP cash crops) over last year	Flat	Flat	Flat	Strong	Flat	Flat	Flat	Flat	Strong	Flat	Flat	Flat	Flat
Overall farm income	Strong	Modest	Modest	Flat	Flat	Decline	Decline	Modest	Modest	Decline	Strong	Modest	Decline
Agriculture financing awareness and usage	Strong	Strong	Strong	Flat	Flat	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
Non-agri Income													
Dairy	Strong	Flat	Strong	Strong	Flat	Strong	Strong	Strong	Strong	Strong	Strong	Strong	Strong
Tractor/Pick-ups	Strong	Strong	Strong	Strong	Flat	Flat	Flat	Flat	Flat	Flat	Strong	Strong	Strong
Remittances	Modest	Flat	Flat	Modest	Flat	Flat	Modest	Modest	Flat	Modest	Strong	Flat	Flat
Local jobs	Modest	Modest	Flat	Flat	Flat	Flat	Modest	Modest	Flat	Modest	Strong	Strong	Flat
Wealth effect of land													
Urbanisation	Strong	Strong	Strong	Strong	Strong	Modest	Strong	Strong	Flat	Strong	Strong	Strong	Strong
Road connectivity	Strong	Strong	Strong	Strong	Modest	Strong	Strong	Flat	Flat	Strong	Strong	Flat	Strong
Price trend	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline	Decline

Source: JM Financial: Legend ⇧: Strong ⇧: Modest ⇔: Flat ⇩: Decline, Note: *Fruits and Pulses grown at all the locations. The comparisons are over similar period last year

Near-term trend: Farm income – Modest growth in FY18

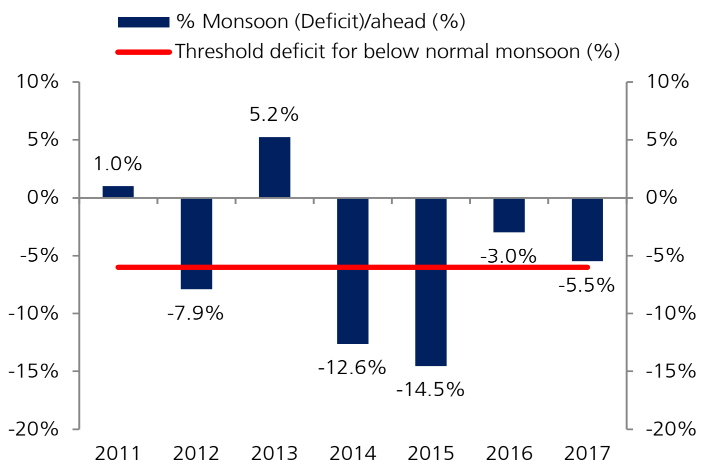
We expect a healthy Rabi crop output given adequate water levels across the country (barring Central India) and limited impact on Kharif crop yield due to a sub-optimal time distribution of monsoon. Among key crops – prices of vegetables have been holding up, cereals production and growth is likely flattish and price growth expected to be in-line with MSP growth, while pulses/oilseeds continue to be sluggish, but on YoY basis, they are largely flat.

Normal monsoons in 2017, rain deficit in states with good irrigation coverage

India's monsoon (Jun-Sep) season provides c.80% of water requirements for agriculture crops and in 2017, it came in at 5.5% below the Long Period Average (LPA), still categorised as normal (-6% to +6% of LPA). This was the second consecutive year of normal monsoon and we also note that the states which reported large rain deficits also have good irrigation coverage, thereby limiting any adverse impact on kharif crop production.

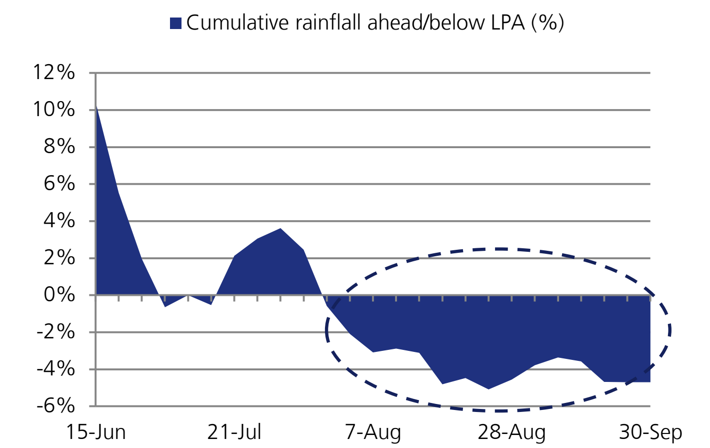
Overall monsoon came below 5.5% of Long Period average

Exhibit 16. Rainfall during the 2017 monsoon (Jun-Sep) remained in the normal range, but was 5.5% below the LPA



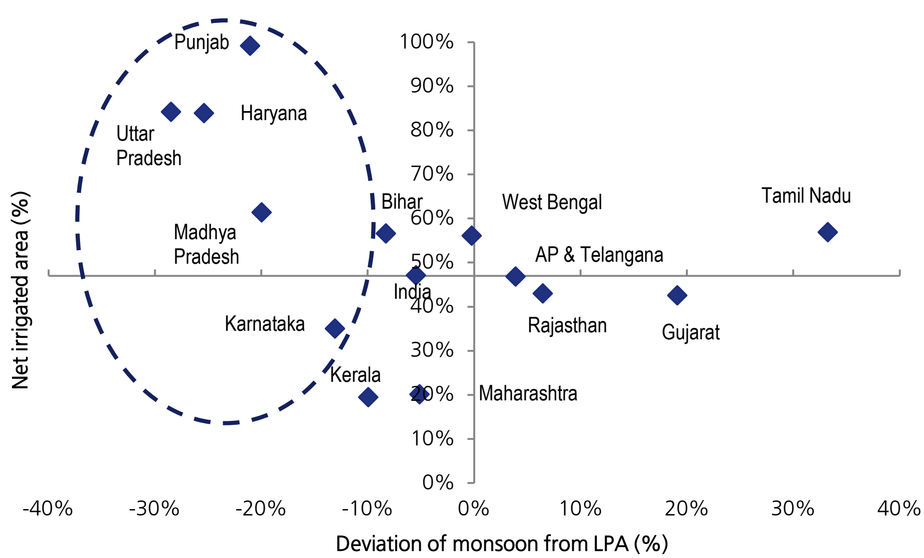
Source: IMD

Exhibit 17. The 2017 monsoon started on a good note, but there was a long break in key periods (August to mid-September)



Source: IMD

Exhibit 18. States and rainfall deficit during 2017 – As most rain-deficit states have good irrigation coverage, limited adverse impact on the current kharif crop output



Rain deficit largely in states with good irrigation coverage barring areas of MP and Karnataka

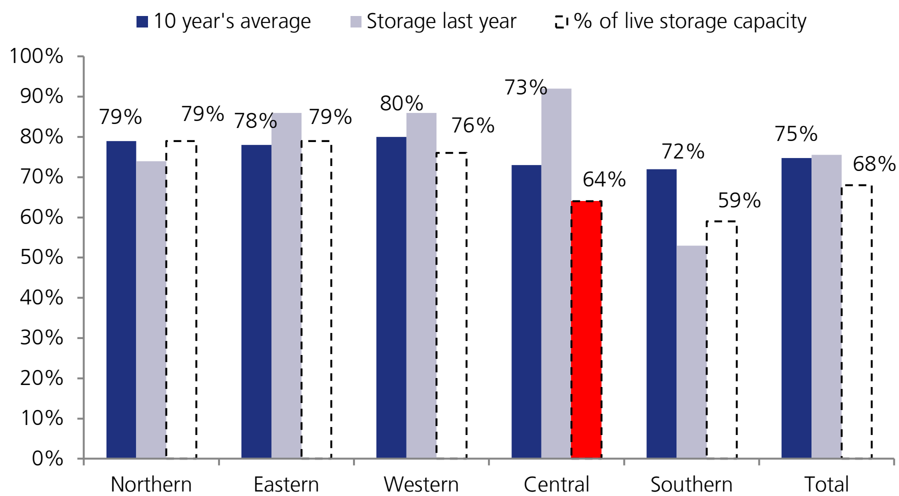
Source: IMD, NSSO

Therefore, the adverse impact of a rainfall deficit on agriculture output would only be seen in a few states in 2017. These include Madhya Pradesh/Karnataka/Kerala (exhibit above), essentially states with weaker irrigation coverage; this was corroborated during our interactions in the states.

Current water level sets a good base for the upcoming Rabi crop

Despite the long absence of rainfall in Central and North-west India from Aug to mid-Sep'17, Southern India saw healthy downpour from late-Aug to end-Sep. Consequently, water levels (as measured by 91 reservoirs in the country) show encouraging prospects for the upcoming rabi season. However, reservoirs in the Central Indian states (UP, Uttarakhand, MP and Chhattisgarh) indicate much lower water levels than last year and the past-ten-year average.

Exhibit 19. Barring central India, water levels indicate a healthy setting for the upcoming Rabi crop



Source: PIB, Water level as on Oct 12, 2017

Ex of Central India, water levels at present is same as last year, thereby increasing optimism for a good Rabi crop

Another characteristic of the 2017 monsoon has been continued high rainfall in some regions even after 30Sep'17 (official monsoon end date). This has been overall beneficial in terms of water levels, but could adversely impact already-harvested crops.

Nevertheless post monsoon, South India (+52% ahead of LPA), and Central India (+22% ahead of LPA) have received good rainfall in the first half of October (+10% of LPA for the country), **thereby improving the optimism of farmers for the upcoming Rabi crop season.**

Our rural visits across 11 states – Divergence across states based on rainfall and irrigation cover, overall modest growth

Our team of analysts went to 11 states over a three-week period in September and October 2017 to interact with a wide variety of stakeholders across villages and semi-urban areas in India .These states account for more than 2/3rd of agriculture GDP of the country.

We have highlighted comments around the kharif output (Jun-Oct'17) and likely direction of farm income growth/decline across states based on **crop composition, irrigation coverage and feedback from the ground in the exhibit ahead.**

Exhibit 20. Feedback around crop output from the current Kharif season – Overall modest growth in farm income during FY18

State	Kharif sowing - YoY (%) - Aggregate	Rainfall deficit/ahead of LPA (%)	Irrigation Cover %	Farm Income - YoY (%)	Comments - Farm productivity/income
Gujarat	0.0%	19%	43%	⇧	After three years with deficit rainfall (2014/15/16), Gujarat saw a high amount of rainfall in 2017 (led to floods in the early part of the monsoon); time distribution of rainfall was also optimal. Sowing of cotton is ahead by 10% YoY (replacing pulses), but due to excess rains, cotton and groundnut yields are likely to be lower YoY. Improvement in water levels is leading to high optimism for the upcoming rabi season. Additionally, farmers can plant an in-between crop during Sep-Dec, given the water availability.
Andhra Pradesh	-5.9%	19%	47%	⇧	AP saw a major shift towards cotton (sowing up by 37% YoY) from chilli (spice) as the price of chilli has dropped over 50% during the past year on account of high output. Rainfall was initially weak but then picked up well during the course of the monsoon and overall ended up 19% ahead of the LPA, thereby generating positive sentiment for the upcoming rabi crop.
Maharashtra	-0.8%	-5%	20%	↑	The Western belt of Maharashtra is well-irrigated, leading to normal/excess rain all through the season. Eastern/Central Maharashtra (Marathwada and Vidarbha) saw good rains initially leading to healthy sowing (cotton +11%, sugarcane: +49%), but there was a long absence of rains in July and August. However, rains in mid-to-late September and even during early October saved the crop output in these regions, thereby limiting adverse impact on yields.
Punjab	0.1%	-21%	99%	↑	Punjab saw sharp jump in cotton sowing (+50% YoY) replacing pulses and even paddy crop (-4% YoY sowing). The long absence of rainfall during August-September has led to cases of pest infection in cotton and certain cases in paddy as well. However, Punjab is a very well irrigated (95%+ coverage) state and faces much less adverse impact on yield due to the lack of rain (-21% below LPA in 2017).
Haryana	0.2%	-25%	84%	↑	The scenario in Haryana is very similar to Punjab, with high cotton sowing (+32% YoY).Growth in cotton has been lower than expected due to cases of pest attacks, but overall yield on other crops would be largely similar to last year.
Telangana	1.7%	-15%	47%	↑	Telangana reported strong sowing growth in cotton (51% YoY) replacing pulses and coarse cereals. Rainfall had been deficient during the early part of the monsoon; while it eventually improved, it still remained below normal (-15% LPA). Therefore crop yield is likely to be lower than last year on most cash crops (cotton, chillies, pulses), with stable yield in the case of paddy.
Bihar	2.8%	-8%	57%	⇔	Bihar has seen high variation in rainfall within the state, with 1/3rd of the state's area impacted by a severe flood, while other regions (West, Central) saw slightly lesser rainfall than average, leading to the overall state's rainfall coming in 8% below LPA. Crop yields in the state's non-irrigated regions have seen marginal adverse impact and irrigation costs have also gone up YoY.
Uttar Pradesh	-1.5%	-29%	84%	⇔	UP has seen high deficit in rainfall (-29% below LPA) with certain regions impacted by floods (Eastern UP). Overall, output in the well-irrigated Western UP is likely to be largely intact, while crop output has been partly impacted in the Eastern UP; though the decline in yield is largely expected to be in low single digits. Similar to the impact mentioned in Bihar, a weak long dry spell has led to increase in the irrigation costs for farmers in the state.
Madhya Pradesh	1.8%	-20%	61%	⇩	MP has seen high rain deficit (-20% LPA) and its irrigation coverage is also modest (61% overall, with Eastern MP below even 50% coverage). Therefore, yield of paddy crop in the Eastern MP has been adversely impacted (-10%+) due to long dry spell during August/mid-September. In Western MP (Malwa belt), which grows soyabean (requires less water), high rainfall at the end of September has led to adverse impact on yield (-20% or below).
Karnataka	-13.4%	-13%	35%	⇩	Karnataka has suffered high rain deficit during the past two years (-20% below LPA during 2015 and even in 2016). During 2017, the state witnessed weak rainfall at the beginning of monsoon which led to lower sowing (-13% YoY). However, after mid-August rainfall has been better and reduced the overall deficit in rains from -20% of LPA at the end of July to -13% at the end of monsoon. Hence, there is a strong optimism for the upcoming rabi season, but the crop output and hence income during Kharif would be impacted adversely.
Tamil Nadu	-15.9%	33%	57%	⇩	Similar to Karnataka, TN saw very weak rainfall at beginning, leading to a rain deficit of 30% by the end of July; hence, sowing was adversely impacted (-16% YoY). Later, August and September saw heavy rainfall and the state has recorded an excess of 33% ahead of normal. Crop yields are likely to be better than last year and optimism on the upcoming rabi crop is high, given the heavy rains during August-September.

Source: JM Financial, Legend ⇧: Strong ↑: Modest ⇔: Flat ⇩: Decline, The comparisons are over similar period last year

Exhibit 21. Adverse impact on yield of cotton (Punjab) – Would aid volume growth of agro-chemicals

Source: JM Financial

Exhibit 22. Rain deficit in UP – Long absence of rains in Aug-Sep'17 has impacted crop yields for vegetables; impact on paddy limited

Source: JM Financial

Exhibit 23. South India has seen abundant rains - Tamil Nadu – From a deficit in July, the state's rainfall was 30%+ higher than the LPA by the end of the monsoon

Source: JM Financial

Exhibit 24. Andhra Pradesh – High rainfall towards the end of the season is expected to drive a strong crop output

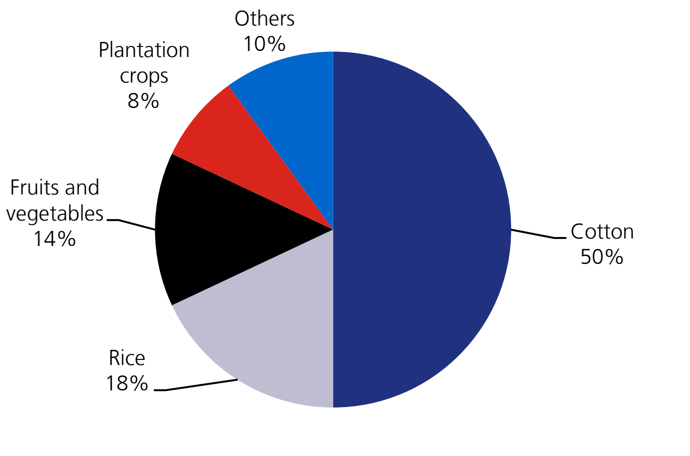
Source: JM Financial

Increased use of pesticides bodes well for agrochemical usage

As discussed in the previous section, the current kharif season has seen higher instances of pest attacks in case of cotton (Punjab and Haryana in particular) and even in paddy at certain locations. Cotton accounts for almost 50% of agrochemical usage in the country, and hence we expect the use of agro-chemicals to rise due to the higher incidence of pest attacks during the current kharif season.

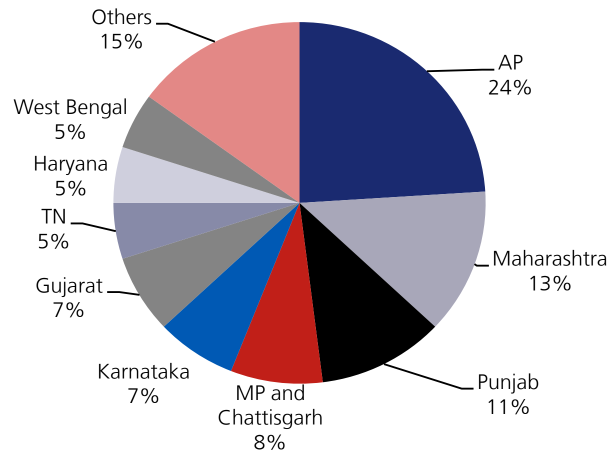
Cotton accounts for 50% of agro-chemical usage, higher sowing and increased pest infestations would lead to higher agrochemical usage

Exhibit 25. Agrochemical usage by crops – Cotton accounts for 50% of usage in the country



Source: Industry

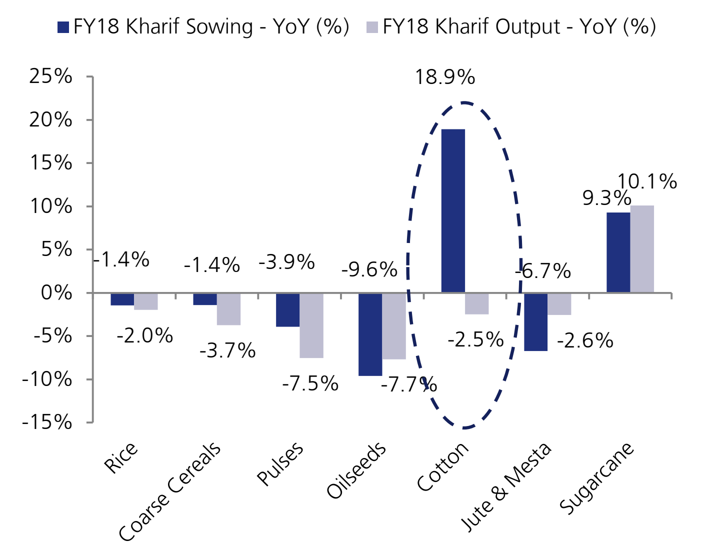
Exhibit 26. Agrochemical usage by states – AP, Maharashtra and Punjab account for c.50% of usage in the country



Source: Industry

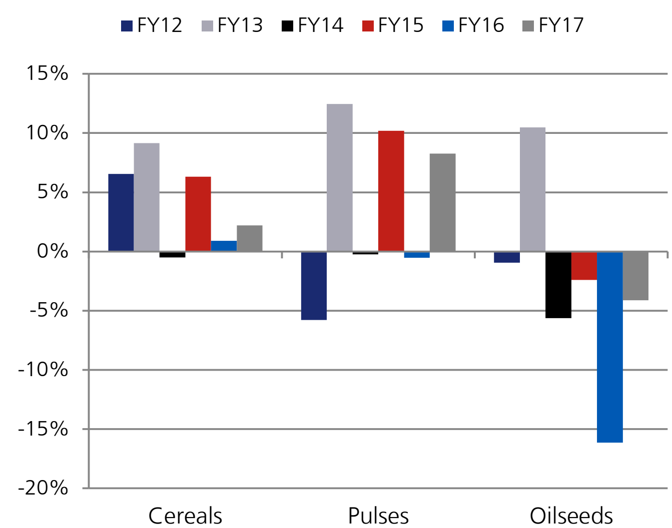
Government's 1st estimate indicates a decline in production across most crops during the current kharif season; we expect a better outcome

Exhibit 27.1st advanced estimate for FY18 Kharif crop – barring sugarcane, YoY decline in production is expected across most crops



Source: PIB

Exhibit 28. Government's Initial crop production estimate accuracy has been limited historically, Difference between actual output and 1st estimate across years



Source: CMIE

Sowing has been down across all the crops, barring Cotton during Kharif 2017

The initial production estimate released during the end of September 2017 has indicated a decline in production of almost all major crops during the current kharif season (exhibit above). The estimates forecast a decline in production across all the crops (barring sugarcane).Our interactions across states also indicates impact on yield during the current kharif season. **However, we believe the actual output could be better than the estimates above (barring Oilseeds).** These estimates are based on the conditions at the end of September, while during the following 15 days also, there was a good amount of rain (overall 10% ahead of LPA in October), which is likely to mitigate the declines, particularly in pulses and coarse cereals.

Even comparing previous years, the divergence in initial estimates and final output could range at -15% to +10% as indicated above.

Pricing - will it play spoiler again?

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-cereals are impacted more by global price trends, as barring cereals (paddy and wheat), procurement of most other crop output is not material and is done based on need. The fluctuations in pricing of agri-commodities remain a significant uncertainty for farm income; we analysed the recent trends in our previous note (Rural update –Price). We saw farmer-led protests across states such as Madhya Pradesh and Maharashtra in Jun'17 which eventually led to the expansion of farm loan waivers to total of five states (INR1.2tn expected outlay).

The key question staring at the agriculture space is – **how are agri-prices faring now and how will they move over the next few months?**

Apart from Wheat and paddy, procurement of other crops is low, thereby putting pressure on prices

Before delving in price discussions, we also look at the break-up of agriculture output by crops and estimate the share of agriculture realisations by crops across states. Overall, on aggregate basis, Cereals account for c.20% of agri & allied services output, Pulses & Oilseeds 10%, Fruits & Vegetables 21% and Dairy at 25%. **However the share of output from crops varies significantly across states and we have highlighted states with significant share of agri-output from the crops in the diagram below.**

Exhibit 29. State and realisation estimates by key agriculture (including dairy) category

	Rice	Coarse Cereals	Wheat	Total Cereals	Pulses	Oilseeds	Pulses +Oilseeds	Cotton	Sugarcane	Fruits & vegetables	Spices	Dairy	Other Crops	Total by state
AP	10.4%	4.0%	0.0%	14.4%	3.9%	3.2%	7.1%	5.9%	2.3%	21.1%	9.6%	24.8%	14.8%	100%
Bihar	8.9%	3.0%	9.2%	21.1%	2.6%	0.5%	3.1%	0.0%	4.1%	32.4%	-	28.0%	11.3%	100%
Gujarat	1.5%	1.9%	3.9%	7.4%	2.2%	14.3%	16.5%	10.8%	2.2%	20.3%	8.7%	24.9%	9.1%	100%
Haryana	7.2%	1.7%	24.1%	33.1%	0.7%	3.6%	4.3%	4.8%	2.5%	10.4%	1.3%	31.9%	11.6%	100%
Karnataka	5.5%	9.0%	0.4%	14.8%	6.7%	4.1%	10.8%	2.1%	9.9%	24.8%	4.4%	20.0%	13.2%	100%
Maharashtra	2.6%	5.1%	1.6%	9.3%	8.7%	10.3%	19.0%	7.9%	12.9%	18.2%	0.9%	19.1%	12.8%	100%
MP	2.3%	1.9%	13.2%	17.4%	13.3%	12.3%	25.6%	1.6%	0.5%	18.7%	3.4%	20.3%	12.4%	100%
Punjab	15.5%	0.7%	26.5%	42.7%	0.0%	0.2%	0.2%	3.2%	1.6%	8.7%	1.1%	31.8%	10.5%	100%
Rajasthan	0.0%	6.4%	10.7%	17.1%	8.1%	14.2%	22.3%	1.2%	-	2.2%	6.0%	40.1%	11.2%	100%
Tamil Nadu	10.1%	4.2%	0.0%	14.2%	2.5%	4.0%	6.5%	0.9%	10.8%	22.0%	3.1%	29.0%	13.5%	100%
UP	7.3%	1.6%	17.1%	25.9%	2.7%	1.0%	3.7%	-	12.7%	17.5%	1.1%	28.1%	10.9%	100%
WB	19.5%	0.6%	1.4%	21.5%	1.0%	2.6%	3.6%	-	0.4%	41.2%	2.4%	14.1%	16.8%	100%
Others	19.0%	2.1%	2.1%	23.2%	4.1%	1.6%	5.7%	0.3%	1.5%	36.8%	6.0%	18.8%	7.7%	100%
All India	**8.2%**	**3.0%**	**8.3%**	**19.6%**	**4.6%**	**5.6%**	**10.2%**	**2.9%**	**5.1%**	**21.3%**	**4.0%**	**25.2%**	**11.9%**	**100%**

Source: CMIE, JM Financial, Estimated based on FY16 output

Exhibit 30. Break-up of Indian agriculture output (realisation) by key crops/agri-activity

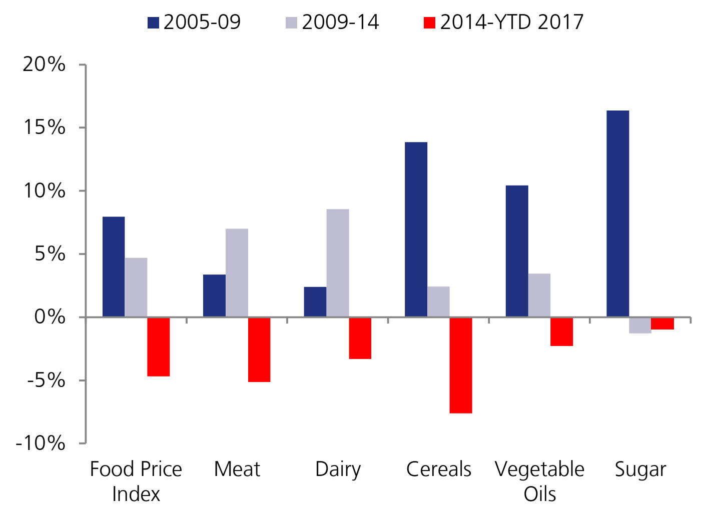
Cereals	Pulses+Oilseeds	Cotton	Sugarcane	Spices	Fruits and Vegetables	Dairy
• Punjab • Haryana • Uttar Pradesh • West Bengal • Bihar	• Madhya Pradesh • Rajasthan • Maharashtra	• Gujarat • Maharashtra • Telangana • Andhra Pradesh	• Uttar Pradesh • Maharashtra • Tamil Nadu • Karnataka	• Andhra Pradesh • Gujarat • Rajasthan • Karnataka	• All the states have significant share, barring Punjab, Haryana and Rajasthan	• All the states have significant share and within states, Rajsthan, Haryana and Punjab lead in share from dairy

Source: CMIE, JM Financial estimates

Global support to agri-commodity prices remains weak

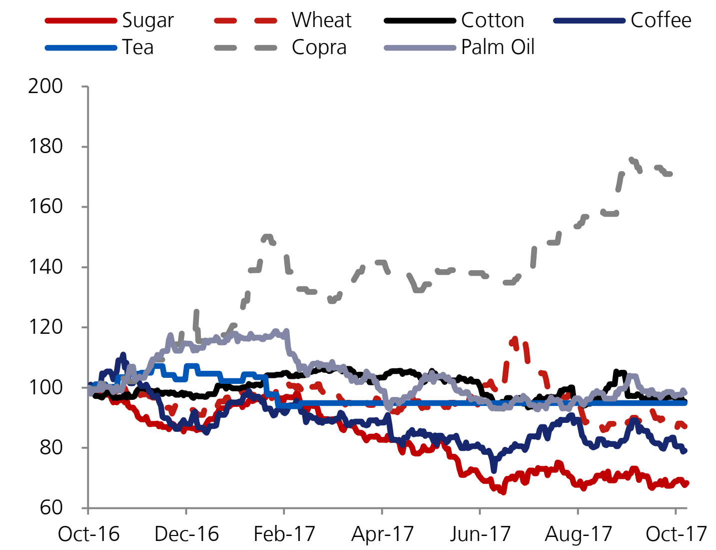
In line with weakening commodity prices over the past few years, global agri-commodity prices have been subdued over the past few years, barring certain crops. **The current forecast remains for healthy global production for agri-commodities (as per the USDA) and hence a significant price increase in the next few months is largely unlikely** The global commodity prices impact crops such as pulses/oilseeds/basmati rice/coarse cereals/cotton, etc., which are not procured by the government on a regular basis.

Exhibit 31. Global Food Price indexes continue to remain non-supportive, (Price index CAGR across years)



Source: FAO, YTD 2017 up to Sep 2017

Exhibit 32. Prices of key agro-commodities remain subdued barring Copra



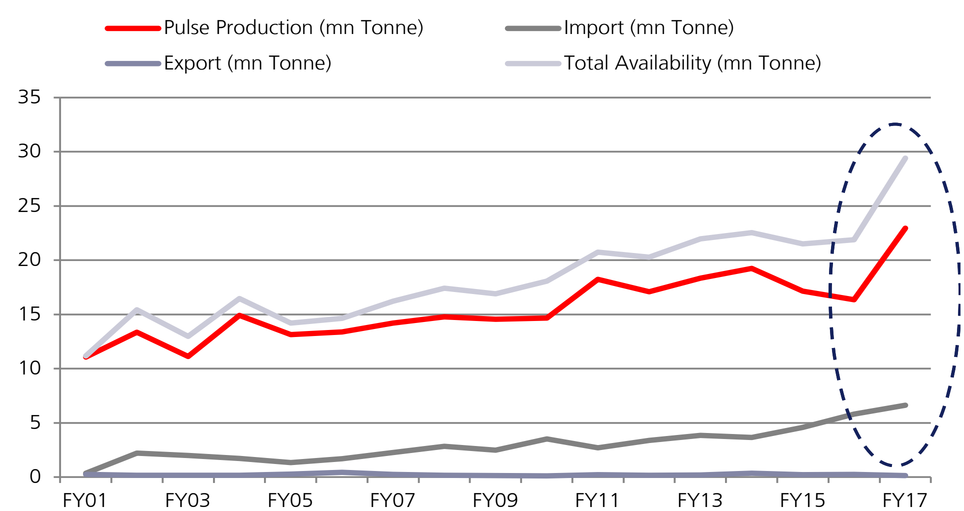
Source: Bloomberg, Prices indexed to Oct-16

Pulses and oilseeds - Current prices weak, MP's price deficit program a welcome step

The correction in market prices of pulses and oilseeds during early 2017 has been sharp (30-50% from peak levels) and this was led by multiple factors. During FY17, total pulse production was 22.4mn Tn, up from 16.4mn Tn in FY16. In addition, there were imports of 6.6mn Tn (FY16: 5.8mn Tn), which raised availability. After robust production of Rabi in 2017 (Apr-May), prices came down sharply and farm-led protests erupted in Jun'17.

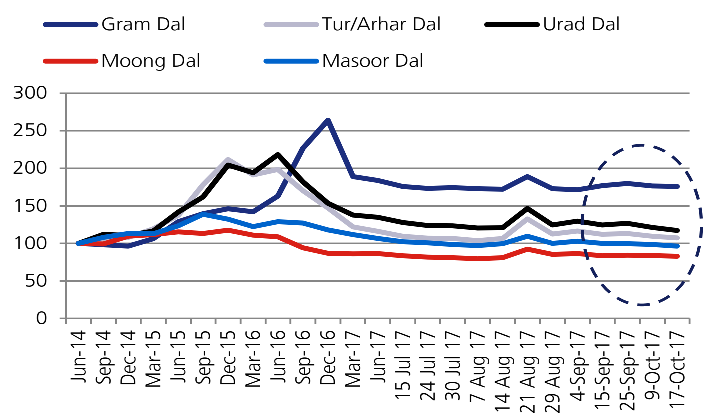
Pulse, as a source for protein continues to see increase in domestic consumption

Exhibit 33. Pulse availability surged in FY17 – Sharp increase in production, increase in imports along with weak procurement led to price weakness from mid- FY17



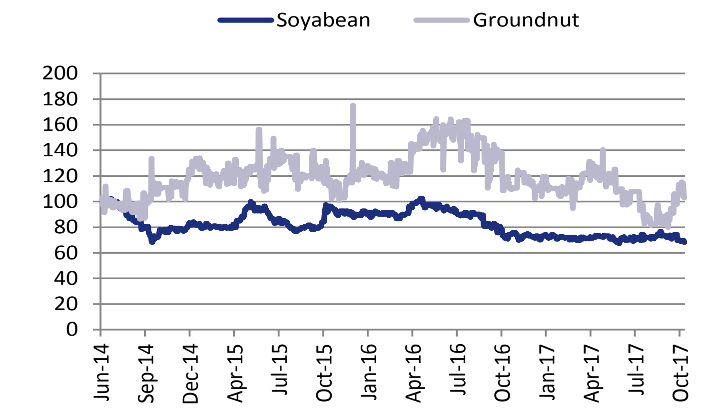
Source: CMIE

Exhibit 34. Prices of Pulses corrected sharply during 2HFY17 on the back of high production and imports



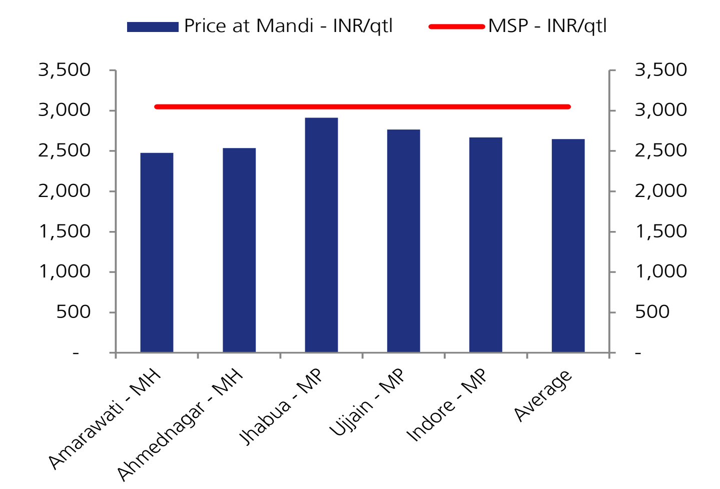
Source: Ministry of Consumer Affairs and PDS, Wholesale prices

Exhibit 35. Prices of Oilseeds also continue to remain sluggish over the past year



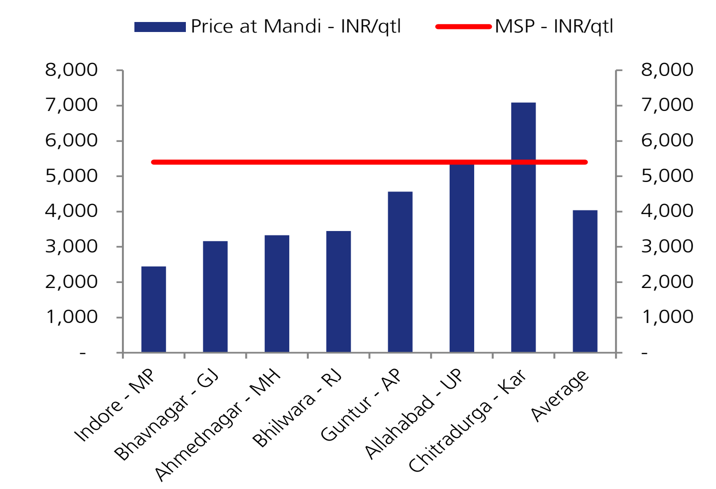
Source: Bloomberg

Exhibit 36. Prices at various Mandis for Soyabean – Current prices below MSP (10-20%) at many key locations



Source: Agmarknet, Average prices between Oct 1-Oct 17 2017

Exhibit 37. Prices at various Mandis for Urad (Pulse) – Current prices down sharply (30-40%) from MSP



Source: Agmarknet, Average prices between Oct 1-Oct 17, 2017

Some reasons for the sharp fluctuations in price of pulses can be ascribed to – **(a)** stock limits for retailers and wholesalers as pulses come under the Essential Commodities Act, **(b)** export controls and **(c)** lack of effective procurement. The production of pulses had been volatile and also below the country's requirements; hence, there were restrictions on exports and stock limits to control hoarding practices.

The sown area of pulses/oilseeds have come down by 3.9%/9.6% YoY during Kharif FY18 and the Government has now restricted the import of toor (pulse)/urad/moong in Aug'17 to a quota of 0.2/0.3mn Tn. **After the announcement of import restrictions, pulse prices saw small spike during August, but soon reverted to their earlier soft trajectory**.

Import of pulses were put on restricted list during Aug'17, still prices remain weak

Therefore, there is an urgent need to reform the policies regarding pulse price realisations and improve the procurement mechanism to enable at least MSP realisation to the farmers. As of mid-Oct'17, the prevailing prices of pulses sold in various key Mandis are running significantly below the MSP declared by the Government.

Will MP Bhavantar Bhugtan Scheme provide support to Prices?

The state of MP has announced a new scheme Mukhyamantri Bhavantar Bhughtan (Price deficit financing) scheme for the kharif 2017 (FY18) season. **We believe successful implementation of the scheme can set a very good template for other states to follow and would reduce price volatility for a farmer.**

Box 1: Price deficit financing scheme launched in Madhya Pradesh – can set a very good template

- The scheme is effective for 8 crops - soyabean, peanut, sesame, ramil, maize, toor, urad, moong in the current year. Under this scheme, the state government will pay the difference between "**market value** "and **support price (MSP)** to the farmers. Under this scheme, farmers had to first register themselves by 15'Oct 2017 at state co-operatives along with their Aadhar number and bank accounts.
- The deficit to be paid to the farmer will be calculated based on a formula which will include **(a)** the prevailing price in MP Mandi and also **(b)** two other state Mandis averaged over three months.

  -For example, if the MSP for soybean is INR 3,050/qtl and the price as determined by the formula is INR2,800/qtl, the government will pay out INR 250/qtl directly to the farmer's bank account. .

Exhibit 38. MP Price deficit financing scheme – Awareness messages sent across farmers to illustrate the scheme and to enrol till 15Oct'17

प्रिय किसान भाइयों,
मध्यप्रदेश सरकार पूरे राज्य में किसानों के कल्याण और कृषि के क्षेत्र में बेहतर भविष्य के लिए लगातार प्रयासरत् है। किसान भाइयों के लिए 'मुख्यमंत्री भावांतर भुगतान' नामक एक नई योजना शुरू की है। इस योजना में किसान भाइयों को अगर मंडी में समर्थन मूल्य से अपनी उपज का भाव कम मिलता है, तो उस दाम को सरकार किसानों के खाते में सीधे पहुंचाएगी।

इसमें नीचे गढ़ाकोटा रहली मंडी के भाव दिए गए है–

फसल	गढ़ाकोटा रहली मंडी के भाव (रुपए प्रति क्विंटल)	समर्थन मूल्य	भावांतर भुगतान योजना से किसानों को प्रति क्विंटल फायदा
सोयाबीन	1800 - 2600/-	3050/-	450 - 1250/-
मूंग	3000 - 3600/-	5575/-	1975 - 2575/-
उड़द	1800 - 3100/-	5400/-	2300 - 3600/-

इस योजना का लाभ केवल पंजीकृत किसान भाइयों को ही मिलेगा।

Source: JM Financial, Information about the scheme as disseminated to villagers

Exhibit 39. MP – Direct procurement without adequate storage infrastructure results in wastage — illustrated by the procurement of pulses/Onions after farmer protests in Jun'17

Source: JM Financial. Long queues up to 4km were visible in MP during late Jun'17 as farmers queued up for the procurement of Onions

We would closely monitor the progress of the above scheme and believe it should be expanded across other crops and states over a period of time.

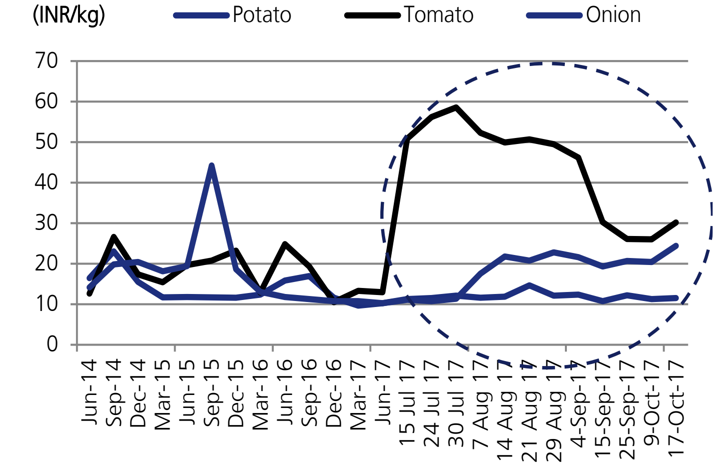
Vegetable prices have increased since end-July; could remain elevated but a further spike is unlikely

The price of vegetables saw a steady deflation over the past year, and low vegetable prices have been adversely impacting farm income, as now income from vegetables/fruits contributes to c.20%-30% of agriculture income in various states.

Low prices of vegetables/fruits hurt smaller farmers more as they have a higher share of crops under vegetables/fruits. During FY18, since the beginning of July, there has been a sustained increase in prices of key vegetables (almost doubled YoY) and higher prices have remained.

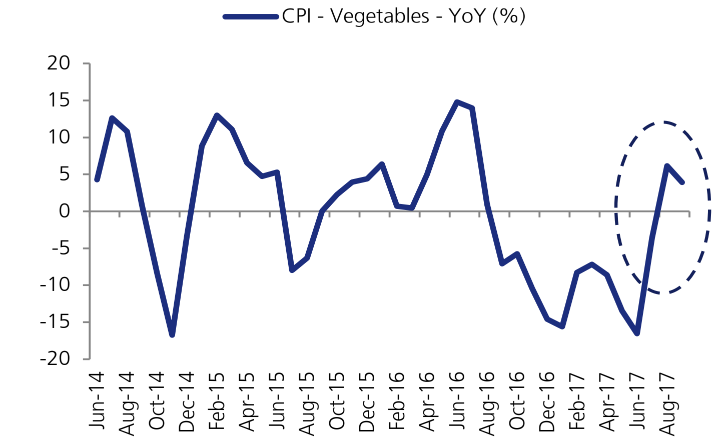
Vegetable prices have remained elevated since the past two months

Exhibit 40. Vegetable prices have picked up in the last two months



Source: Ministry of Consumer Affairs and PDS, Wholesale prices

Exhibit 41. High prices of vegetables reflected in the increase in CPI-vegetables



Source: CMIE, Weight of CPI-Vegetables (6.04%) in the CPI basket

Among key crops, onion output has been adversely impacted by higher rains towards the latter half of September and in October. So, until the next crop is available from Central Indian states (around Jan-Feb), prices of vegetables such as onions can remain at the current elevated levels.

However, on aggregate, a decent monsoon and good moisture levels (reflected in reservoir levels) indicates sufficient production of vegetables going forward and **therefore, sustainable spike in vegetable prices from present levels is not anticipated, in our view.**

At present, only c.10% of the horticulture production is able to be stored and investments in food processing (through 41 mega food parks), cold storage expansion and improvement in backward/forward linkages would eventually help farmers obtain better prices for their perishable crops over the medium term.

We discuss details around Mega Food Park scheme (MFP) in the medium term themes in the next section. The MFP scheme aims to facilitate the establishment of a strong food processing industry backed by an efficient supply chain, which includes collection centres, primary processing centres, central processing centre and cold chain Infrastructure. **We also visited an operational MFP at Tumkur, Karnataka and witnessed the positive impact on farmers in that region through cultivation of higher value crops and assurance of procurement.**

Medium term themes around Farming

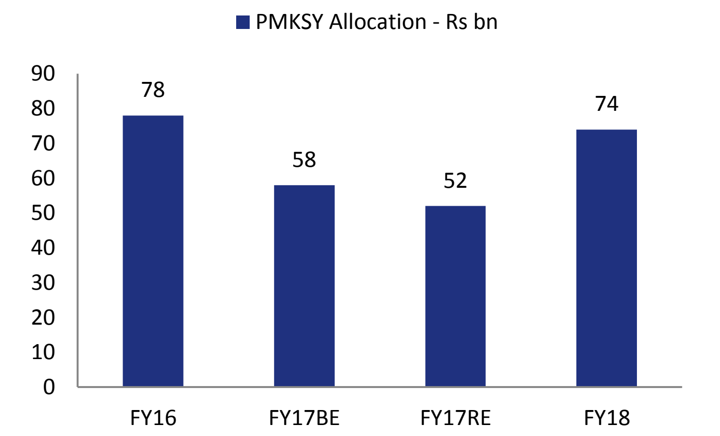
(a) Irrigation – Investments to decouple farm income from monsoon

The importance of irrigation has been highlighted to us in each of our rural surveys and we have observed significant income disparity between a farmer with irrigated farm land vs. un-irrigated farm land. At present, only 48% of India's net cultivated area is under irrigation and there are high variation within the states as well (for example 99% coverage in Punjab to 20% for Maharashtra/Kerala). **Therefore, investment in irrigation should remain a key priority for both the central and the state governments.**

Allocation by Central Government for Key irrigation scheme, PMSKY up by 42% YoY in FY18

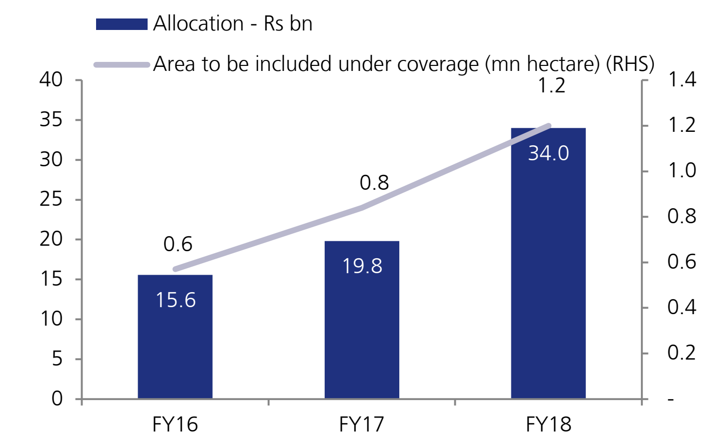
Overall, we have seen increases in the allocations towards irrigation by both – Central Government and the State Governments. **The allocation for the flagship irrigation scheme PMSKY has been increased by 42% YoY in FY18. For the states (17 major states), the allocation for spending on irrigation has increased by 21% YoY to INR992bn in FY18 and for FY16-18 it has grown at a CAGR of 23% YoY.**

Exhibit 42. Increase of 42% YoY in the allocation for key irrigation scheme PMSKY during FY18



Source: Union budget

Exhibit 43. Micro-irrigation remains a key focus area – 70% YoY increase in allocation for MIS during FY18



Source: PIB

Exhibit 44. Capital expenditure on irrigation – Increased by 23% CAGR (FY16-18) to INR992bn (17 states)

(INR bn)	FY16	FY17RE	FY18BE	YoY (%)
Telangana	78	143	149	3.9%
Karnataka	69	90	132	46.9%
Andhra Pradesh	89	74	121	62.1%
Madhya Pradesh	64	83	94	13.5%
Gujarat	81	81	94	16.5%
Maharashtra	81	86	93	7.8%
Odisha	42	57	70	23.6%
Uttar Pradesh	51	66	41	-38.1%
Rajasthan	13	20	37	80.1%
West Bengal	16	22	31	41.6%
Bihar	17	17	31	82.8%
Tamil Nadu	7	15	29	92.3%
Chhattisgarh	17	22	26	16.6%
Jharkhand	12	16	21	29.5%
Punjab	8	16	9	-44.8%
Haryana	9	6	8	35.9%
Kerala	5	9	8	-10.5%
Total	**658**	**823**	**992**	**20.6%**

Source: JM Financial, State Budgets

Ex of UP, Punjab and Maharashtra, (states with farm loan waiver), irrigation capex during FY18 has increased by 30% YoY for rest of the states

Within irrigation, Micro-irrigation is a key focus area

In terms of sources of irrigation, the share of tube-wells has increased from less than 25% at 1981 to over 45% at present. However, one adverse impact has been the depleting water levels and thereby judicious use of water resources should be a key priority. Among other modes of irrigation, micro-irrigation coverage continues to be small (c.6% of net irrigated area) and thereby some state governments (particularly Western and Southern India) have a large focus on expanding the coverage under MIS. The total area under MIS is c.8mn hectares (total arable area: 140mn hectares) and various industry estimates indicate the addressable market could be up to 70mn hectares. On an average, the installation of MIS reduces the intake of water by up to 50%, saves power and labour costs for the farmer.

Various states provide subsidies ranging between 50-90% of total cost (c.INR50-100K/acre) for installing MIS systems with various criteria for approving the subsidy (size of land holding, crops, etc.). Some states such as Tamil Nadu provide even 100% subsidy on MIS installations to the farmers approved under the state irrigation scheme..

Micro-irrigation has a huge scope of growth – can reach up to 70mn hectares against c.8mn hectares at present

Exhibit 45. Micro-irrigation spread across states and allocation of FY18 budget

State	Area (mn hectare) under Minor irrigation	% share of MIS irrigated area	PMSKY Micro-irrigation allocation – FY18 (% share)
Andhra Pradesh	1.2	15%	17.0%
Maharashtra	1.3	16%	15.2%
Karnataka	0.8	11%	12.0%
Tamil Nadu	0.3	4%	11.4%
Telangana	0.0	0%	11.0%
Gujarat	0.8	11%	11.0%
Madhya Pradesh	0.4	5%	10.0%
Rajasthan	1.7	22%	2.8%
Uttar Pradesh	0.0	0%	2.0%
Bihar	0.1	1%	0.6%
Haryana	0.6	7%	0.6%
Odisha	0.1	1%	0.6%
West Bengal	0.1	1%	0.4%
Punjab	0.0	1%	0.2%
Rest of country	0.4	5%	5.1%
Total	**7.8**	**100%**	**100%**

Source: PMSKY, Note: state wise break-up as of FY15

There have been additional efforts during past few months around promotion of MIS such as -

(a) The state of Haryana (which has low footprint of MIS, 7% of count) increased subsidy to 85% for MIS and also encourages installation of solar-power run MIS projects.

(b) Maharashtra (16% of country's MIS area) has plans to make drip irrigation mandatory for sugarcane farmers over the next three years.

During our visits to South and Western India, we noticed steady growth in installations of micro-irrigation systems (pumps, pipes). Some of the key brands visible during our visits have been **Finolex** and **Agroplast** (for thin drip pipes) and **Astral and Prince** for thick pipes.

Exhibit 46. Usage of sprinkler-based irrigation in Marathwada, Maharashtra

Source: JM Financial

Exhibit 47. Among pipe companies, we saw increasing presence of Finolex Industries for irrigation installations

Source: JM Financial

Large irrigation projects to expand the irrigated area significantly over the medium term

AP and Telangana have focused on large irrigation projects

Apart from investments in micro-irrigation, various states have also invested/are investing in large-scale irrigation projects such as the Sardar Sarovar project in Gujarat and Polavaram project in Andhra Pradesh. Recently, Andhra Pradesh completed a large-scale river linking project (connecting Krishna and Godavari), which expands the irrigated area significantly in the state.

Box 2: River linking project in Andhra Pradesh – significantly expands the irrigated areas in Andhra Pradesh

- In addition to small-scale irrigation projects through MIS, some states such as Andhra Pradesh have implemented large projects such as "Pattiseema Lift Irrigation Scheme" completed in FY17 and we could see the benefits during our visit to the state.
- The project interlinks the Godavari river (which has abundant water) and Krishna (water scarce) in AP's West Godavari district and the project benefits the Rayalseema region in the state.
- The project will allow drawing of 120 TMC ft (thousand million cubic feet) water from Godavari and release it into the Krishna river. The project is estimated to have cost INR13bn and provides irrigation cover to 0.7mn hectares of land.
- There are other large-scale irrigation projects underway in Andhra Pradesh (Polavaram) which will be completed over the next few years. In addition, Telangana is constructing "tank" based irrigation system under project Kakatia, and the expanded irrigation coverage would lower farm income volatility in these regions.

Water from Godavari river is transferred to Krishna river (deficient) and adds to 0.7mn hectare of land under irrigation

(b) National Agriculture Market (eNAM) – Still to gain traction

National agriculture market or eNAM aims to create a unified pan-India electronic trading portal, provide a single state-wide license for traders and a single point of levy of market fees.

The portal was launched around middle of 2016 and by Oct'17, 455 major agri-mandis have connected to the platform, and the target is to reach 585 markets by Mar'18.

Exhibit 48. Electronic agro-marketing eNAM – Number of Mandis connected by states

Serial No.	States	Apr'17	Oct'17
1	Uttar Pradesh	66	100
2	Madhya Pradesh	58	58
3	Haryana	54	54
4	Maharashtra	44	45
5	Telangana	44	44
6	Gujarat	40	40
7	Rajasthan	25	25
8	Andhra Pradesh	22	22
9	Himachal Pradesh	19	
10	Jharkhand	19	19
11	Chhattisgarh	14	14
12	Odisha	9	10
13	Uttarakhand	5	5
	Total	**417**	**455**

Source: eNAM

Lack of quality standardisation, change in terms of trade between a trader and commission agent delaying adoption

Despite multiple benefits of trading on eNAM, the turnover remains lowl (less than 5% of trading volumes) and adoption of eNAM is likely to be only gradual. As with any large transformational change, there are resistance from the stake-holders – Traders, commission agents and even farmers on the adoption.

One of the key challenges for adoption of eNAM is the lack of assaying/quality certification mechanism. One of the key features of crop produce in our country is the **sheer variability in the quality of farm output of the same crop and it may be due to (a) a less scientific way of cropping (means no fixed adherence to timelines for agri-inputs) inputs and (b) Variations in rainfall and climatic conditions across regions.**

Lack of quality standardisation deters adoption of eNAM

On account of this variability in crop output, a physical or quality inspection of the produce becomes essential and particularly for some crops such as soyabean. Based on the crop quality, auctions are conducted in agri-mandis and traders bid the price. As an example, we saw in an Indore Mandi, the price of Soyabean varying from INR800/qtl to INR3,000/qtl across an open auction. The present assessment process is highly subjective and as a process during a stipulated time of half an hour, 70-80 auctions take place.

The quality of produce is judged by the final buyer by taking a sample and manually inspecting it and the whole auction process is completed in ½-1 minutes per lot. Now, if the same auction has to happen on eNAM, the buyer needs to check the produce beforehand quoting price. **Till the time a standardisation process is not developed, we believe the take-off of eNAM would remain limited.**

To summarise even Niti Aayog has highlighted few areas which need urgent attention to make eNAM take-off along with the spread of platform

(a) Third party assaying and quality certification mechanisms,

(b) Dispute settlement mechanisms, systems for forwarding goods to buyers,

(c) Digital infrastructure to enable the national market and

(d) Encouragement of FPOs (Farmer Producer Organisations)

In addition, eNAM also disrupts the existing term of trade between key players at an agri-mandi (example below). As we understood, the (a) lack of credit facility and need for instant payment acts as a big barrier for trading volumes at eNAM, and (b) the diminishing importance of the existing commission agents has led to reluctance on the part of commission agents to adopt the new system. .

Box 3: Lack of leverage for the agri-commodity buyer in eNAM drives lower volumes vs. traditional procurement methods.

- Trading at agri-mandis currently involve credit between a (i) farmer & commission agent and (ii) commission agent & trader (buyer of commodities).
- In normal trading practise, the agri-commodity buyers trade in an agri-mandi on credit, The typical credit period is 30-60 days. Post a sale, the commission agent generally pays to the farmer in cash, bears the credit risk and obtains money from the agri-commodity buyer over a period of 30-60 days.
- In a scenario of eNAM, the payment to a farmer is made in real time by the agri-commodity buyer. The lack of leverage in eNAM drives a lower transaction volume from the agri-commodity buyer, and hence a big resistance is seen from all the stakeholders.
- **We believe as agri-trading financing is expanded, the attractiveness of eNAM would definitely pick up.**

Exhibit 49. AP Chilli Mandi – Remained closed during September 2017 as a protest on adoption of eNAM

Source: JM Financial

Exhibit 50. Indore (MP) Mandi – Manual auction in progress, eNAM usage is limited

Source: JM Financial

Encouraging examples of eNAM usage at a small Mandi, customisation and localisation is key to drive adoption

During our forays across states, we also came across few examples where eNAM adoption has been gradually scaling up. One such place is the Mandi at Bareli (Madhya Pradesh, Raisen district).

Adoption of eNAM trading at a small mandi in Bareli, MP

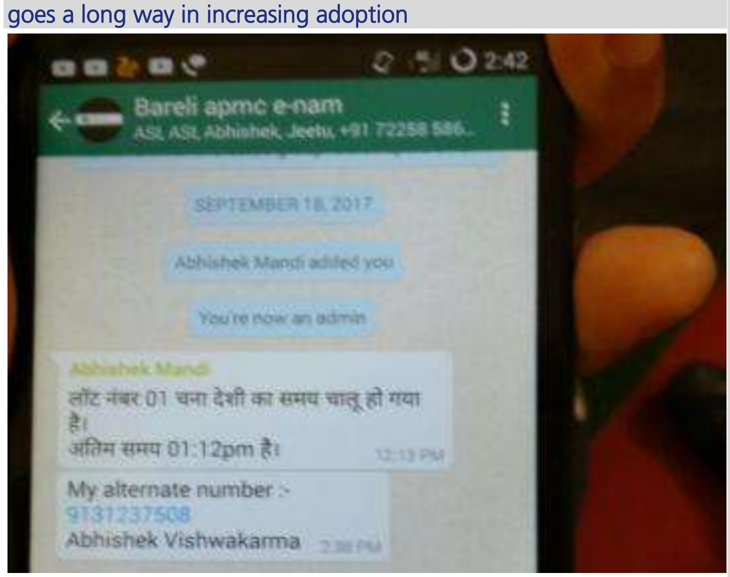
Box 4: A trial run over few months significantly aids in adoption – Illustration from successful adoption of eNAM at a small Mandi, Madhya Pradesh

- We saw limited usage of trading on eNAM at larger Mandis (such as in Indore), where there is high trading volume and auctions have to be completed quickly.
- Interestingly, we encountered usage of eNAM at a relatively smaller region, in the Bareli area (Raisen district) of MP. This region is famous for "Basmati rice" and other pulses and soyabean crop.
- The team responsible for eNAM in the mandi has started the trading the relatively less traded commodity "Chana" (Gram) at the mandi and the information around the bidding details/time prices to begin are transmitted to the user group through the use of whatsapp. This practise has been continuing for few months and slowly the number of users on the eNAM platform has been increasing (at present c.150 traders).
- The variability in "Chana" crop is low as compared to Soyabean and this is also traded infrequently at the Barely mandi. Hence there is less time constraint on trading to finish on eNAM. It is to be noted that the traders who use the platform are still from local regions.
- This example clearly indicated that the adoption of transformative projects such as eNAM would take off in a big way only after thorough familiarisation of local traders and customising as per the relevant crops.

Exhibit 51. eNAM trading room at Bareli Mandi, Raisen district, Madhya Pradesh – Trading on eNAM happens regularly here.

Source: JM Financial

Exhibit 52. Usage of technology platforms to disseminate information goes a long way in increasing adoption



Source: JM Financial

(c) Crop Insurance – Potential to reduce income volatility

Variability and volatility in income are key concerns for agri-dependent families and thereby the efficient functioning of "crop insurance" is one of key medium-term themes as discussed in our previous Rural Safari report (Rural safari-V).

Over the years, there have been multiple insurance schemes introduced by the Government. As against earlier crop insurance schemes that largely insured weather-related risks, the new scheme launched in 2016, PM Fasal Bima Yojana (PMFBY) is a comprehensive insurance scheme with **(a)** higher sum insured than earlier schemes to cover cost of production, **(b)** along with limiting a farmers payment (1.5-2% on food grains and 5% on commercial crops). PMFBY encourages participation from private players (through tendering), has higher usage of technology and covers post-harvest losses.

PMFBY has led to increases in sum insured and farmers under coverage

Crop insurance premium increased c.4x between FY16 and FY17

The implementation of PMFBY (Kharif 2016) led to an increase in the gross coverage area under insurance from 25% in FY16 to 30% in FY17. **The government aims to increase the coverage of crop insurance from 30% in FY17 (FY16: 25%) to 40% in FY18 and 50% by FY19.**

The new scheme has been able to

(a) Increase the coverage of farmers by 29% YoY to 40mn in Kharif 2016 (FY17)

(b) Significantly increase the average sum insured - +68% YoY to INR34,370 per farmer

Exhibit 53. The new crop insurance scheme (PMFBY) has been able to increase the coverage as well as the average sum insured

	Kharif 2015 (FY16)	Kharif 2016 (FY17)	YoY (%)
No of insured farmers (mn)	30.9	40.0	29%
Area insured (mn ha)	34.0	39.2	15%
Average area insured per farmer (hectares)	1.1	0.98	-11%
Sum insured per hectare of land (INR)	**20,500**	**34,370**	**68%**

Source: CSE, JM Financial

Crop insurance premium jumped almost 4x from FY16 to FY17

As a result of the increase in coverage and actuarial premium (against subsidised premiums earlier), FY17 saw YoY jump of almost 4x in crop insurance premium to INR206bn in FY17.

Exhibit 54. Gross premium for crop insurance increased to INR206bn (3.7x from FY16) – Share of private players increased to 48% from 36% in the previous year

(INR bn)	FY16	FY17	FY17/16 (x)
Agriculture Insurance corporation	35.1	70.6	2.0
Other Public sector insurers	0.6	36.8	61.3
Private sector insurers	19.8	98.6	5.0
Total	**55.5**	**206**	**3.7**

Source: ICICI Lombard

Agriculture Insurance Corporation (AIC) has been the dominant player in the crop insurance segment with 63% share (gross premiums) during FY16 and on average had c.50-60% in the previous years. **AIC has been the nodal agency for dissemination of insurance claims in multiple states and despite increased participation from private sector companies from FY17, it was still the largest insurer of crop insurance.**

Expect healthy growth from Crop insurance

During FY18 Kharif season, the number of notified villages has increased by almost 47%, with increases across multiple states (maximum from UP and MP). **We do believe growth in crop insurance would continue to be healthy as the area under coverage increases, however jump in premiums such as FY16 to FY17 (4x) is unlikely in the near term.**

Exhibit 55. Increase in coverage for crop insurance- Number of notified villages up by 47% YoY for Kharif 2017(FY18)

	Kharif 2016 (FY17)	Rabi 2016 (FY17)	Kharif 2017 (FY18)
Uttar Pradesh	7,289	7,271	96,013
Madhya Pradesh	18,454	55,379	55,424
Odisha	48,461	21,049	52,417
Bihar	43,953	44,934	44,927
Maharashtra	32,611	40,476	43,999
West Bengal	29,942	39,438	40,899
Jharkhand	-	32,589	32,622
Assam	-	18,165	25,374
Chhattisgarh	18,947	12,732	20,166
Gujarat	11,974	17,062	18,633
Himachal Pradesh	11,022	19,990	18,534
Andhra Pradesh	10,657	17,639	17,698
Uttarakhand			16,654
Tamil Nadu	7,082	9,216	14,642
Rajasthan	27,275	22,599	12,005
Telangana	775	10,536	10,610
Haryana	6,669	6,669	6,999
Meghalaya	6,861	6,861	6,861
Jammu & Kashmir	-	-	1,910
Kerala	-	1,524	1,575
Goa	330	336	358
Andaman and Nicobar Island	-	144	-
Karnataka	26,117	9,118	-
Total	**301,130**	**386,456**	**442,307**

Source: PMFBY, Total Villages in India (Census 2011: 640,867

Number of notified villages up by 47% YoY in FY18 Kharif under PMFBY

Has the new crop insurance scheme (PMFBY) been able to overcome past challenges?

During our interaction with farmers last year, we had received mixed responses on the crop insurance scheme. The key concerns articulated to us were -

(a) Lack of information about details of the insurance coverage

(b) Premium for the insurance being automatically deducted for the loanee farmer

(c) The threshold yield below which insurance would be available was high, so farmers with good irrigation coverage would not benefit from the crop insurance

That said, we did hear positive acceptance of crop insurance in states that have been traditionally vulnerable to adverse weather patterns – such as Maharashtra, where farmers were also taking up insurance voluntarily

During our current visits, we gathered an increase in the acceptance of crop insurance but also heard about delays in receiving the payment on previous year's claims in many states such as UP, MP, Karnataka and Gujarat, among others.

In addition, we also witnessed an example which highlights improvement required in the process for claims under the new insurance scheme.

Box 5: Registration process of post-harvest/catastrophic incidence loss in crop insurance needs to be improved

- We were visiting Western Madhya Pradesh during the second half of September in a region where the primary crop is Soyabean (needs less water). Due to high rains at that period, farmers of the region reported loss in their crops yield, ranging from 20% to more.
- The farmers we interacted in the Sehore district had been insured under PMFBY as they had availed of the crop loan and premium was automatically deducted.
- The new PMFBY scheme has a provision of reporting crop loss even if the loss happens before harvesting. But, the incidence has to be properly reported to the insurance company within 1 to 2 days to seek claim.
- The insurance claim form provides few category of risks such as

  - **(a)** Cyclone, **(b)** Cyclonic rainfall (after crop), **(c)** Local rainfall (after crop), **(d)** Landslide, **(e)** Deluge (local), **(f)** Hailstorm (local), **(g)** Water logging (local)
- The challenge for farmers were to

  - **(i)** categorise the problem under right category above and
  - **(ii)** where to submit the claims.
  - There was lack of clarity at the local bank branch that whether they should accept the claim forms from the farmer or it has to be submitted to the insurance company directly.
- As the time period to submit the insurance claims is limited, there was lot of unrest among farmers and in the end, **the Sarpanch of the village visited the insurance company's headquarters in Bhopal and then only the claims were registered.**
- The incidence highlights that there can be improvements in process of recording catastrophic claims and a better communication with farmers would help in popularising the crop insurance further.

The process to register loss claims could be improved to make it more easy for the farmers

(d) Mega Food Parks (MFPs) to ease infrastructure challenges for horticulture

Inadequate storage infrastructure for fruits and vegetables

Horticulture production has continued to outpace growth in food grain production for the last five years and during FY17, total horticulture output came in at 295mn Tn, 7% higher than food grains production.

However, in terms of storage infrastructure, horticulture faces massive shortage, and at present only c.10% of the total production of fruits and vegetables can be stored in cold storages.

The lack of adequate storage results in high losses for perishable crops (estimated to be 30-40% of volumes), and this can be eradicated through the scale-up of cold storages (for fruits and vegetables). **At present, India has only 25mn Tn of cold storage capacity and under current expansion plans, the target is to expand the capacity to 60mn Tn by 2020.**

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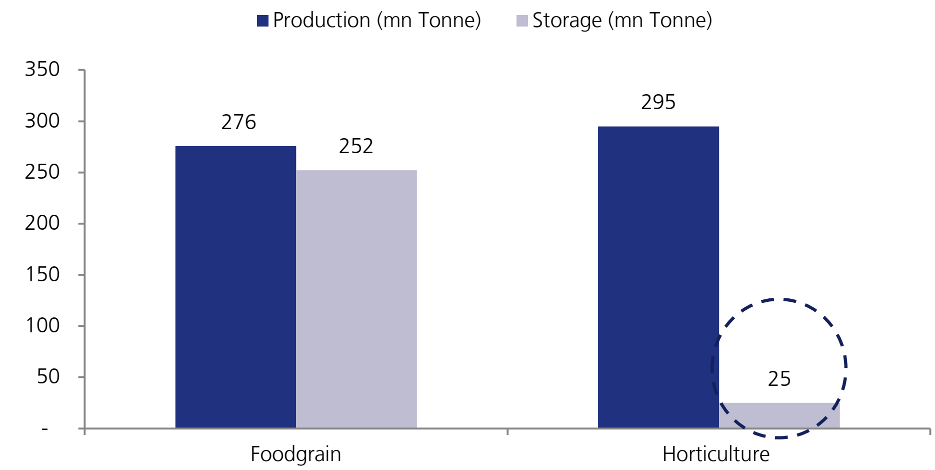
Only 10% of horticulture production in the country can be stored at present in cold storages

Exhibit 56. Production of horticulture (vegetables, fruits, plantation crops, spices) ahead of food grains, but storage infrastructure is woefully inadequate



Source: CMIE, Niti Aayog

Exhibit 57. Reluctance of farmer to expand cultivation of more profitable fruit at Marathwada – lack of storage key concern

Source: JM Financial

Exhibit 58. Most of the fruits and vegetables sold unprocessed, and thereby expansion of MFPs would enhance income levels

Source: JM Financial

9 MFPs completed, total of 41 MFPs expected to be operational by 2020

Food processing as a sector accounted for 9.1%/8.6% of GVA in Manufacturing/Agriculture sectors during FY16. To increase the value-addition and provide a comprehensive infrastructure for food processing, the Government initiated the Mega Food Park scheme in 2008.

At present, there are 9 food parks that have been completed and another 32 are at various stages of completion (exhibit below).

9 MFPs operational beginning with Patanjali Food Park, Haridwar

Exhibit 59. Nine mega food park operational at present, investment of INR 10bn, 32 more in pipeline

Name	Location	State	Completed /Operational since	Project Cost (INR mn)
Patanjali Food and Herbal Park	Haridwar	Uttrakhand	2010	951
Srini Food Park	Chittoor	Andhra Pradesh	2012	1,212
International Mega Food Park	Fazilka	Punjab	2014	1,304
Integrated Food Park	Tumkur	Karnataka	2014	1,443
North East Mega Food Park,	Nalbari	Assam	2015	808
Jharkhand Mega Food Park	Ranchi	Jharkhand	2016	1,147
Indus Mega Food Park,	Khargone	Madhya Pradesh	2016	1,313
Jangipur Bengal Mega Food Park	Murshidabad	West Bengal	2016	1,327
MITS Mega Food Park Pvt Ltd	Rayagada	Odisha	2017	802
Total				10,307

Source: MoFPI, As on Sep 2017

Exhibit 60. Status of the Mega Food Park development – AP & Telangana account for 20% of investments

State	Food Park Location	Number of Food Park	Completed	Project Cost (INR mn)	Amount of grant approved (INR mn)	Amount of grant released (INR mn)	Grant release/Grant approved (%)
Telangana	Khammam, Gadwal Jogulamba, Nizamabad,Medak	4	-	5,021	2,000	449	22.5%
Andhra Pradesh	Chittoor (Operational), Krishna, , West Godavari	3	1	4,286	1,500	940	62.7%
Madhya Pradesh	Khargone (completed), Dewas, Mandsaur	3	1	3,957	1,000	600	60.0%
Punjab	Fazilka (Completed),Ludhiana, Kapurthala	3	1	3,717	1,500	600	40.0%
Maharashtra	Wardha, Aurangabad, Satara	3	-	3,563	1,500	883	58.8%
Haryana	Sonipat, Rohtak	2	-	3,432	500	150	30.0%
Gujarat	Surat, Mehsana	2	-	2,833	1,000	287	28.7%
Karnataka	Tumkur (Completed), Mandya	2	1	2,701	500	482	96.4%
Kerala	Alappuzha, Palakkad	2	-	2,482	1,000	300	30.0%
Odisha	Khurda, Rayagada (completed)	2	1	2,143	1,000	525	52.5%
Uttarakhand	Haridwar, Udham Singh Nagar	2	1	1,950	1,000	798	79.8%
Nagaland	Dimapur	1	-	1,512	492	-	0.0%
Tamil Nadu*	Coimbatore	1	-	1,371	-	-	
West Bengal	Murshidabad	1	1	1,327	500	450	90.0%
Bihar	Khagaria	1	-	1,276	500	146	29.1%
Chhattisgarh	Raipur	1	-	1,245	500	150	30.0%
Jharkhand	Ranchi, Bokaro	2	1	1,147	500	438	87.6%
Rajasthan	Ajmer	1	-	1,136	500	293	58.6%
Himachal Pradesh	Una	1	-	997	500	140	28.0%
Tripura	West Tripura	1	-	875	500	435	87.0%
Assam	Nalbari	1	1	809	500	450	90.0%
Jammu and Kashmir	Pulwama	1	-	794	500	140	28.1%
Mizoram	Aizawal	1	-	752	500	295	58.9%
Total		41	9	49,325	17,992	8,950	49.7%

Source: MoFPI, Data as of end Sep 2017

Cluster based approach, Government grant up to INR500mn per Food Park

The Food Park scheme aims to facilitate the establishment of a strong food processing industry backed by an efficient supply chain, which includes collection centres, primary processing centres, central processing centre and cold chain Infrastructure.

The MFPs are established through a Special Purpose Vehicle (SPV) mechanism with some conditions such as -

- each SPV to be registered under the Companies Act,
- is required to have at least three entrepreneurs/business units independent of each other and a
- Minimum of 26% of the equity of the SPV should be held by a food processor within the SPV
- A minimum of 50 acres of contiguous land

Promoter of the MFP can get grant up to INR500mn, other companies investing in MFP can get grant up to INR100mn or 35% of capital cost

Under the PM Kisan Sampada Yojana (PMKSY), INR60bn has been allocated over the period of 2016-2020. Under this scheme, **the developer/SPV of the Food Park can get a grant of up to INR500mn for the project.**

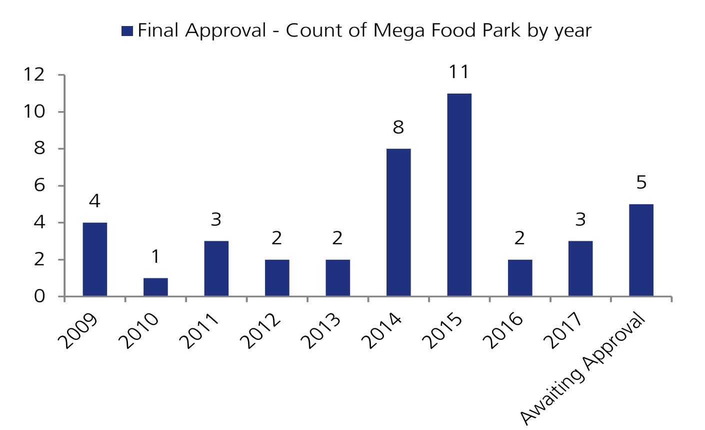
Apart from the main sponsor, other food processing companies can open processing centres and use the common infrastructure of the facility. **A company which leases land in the Mega Food park can get benefit of up to 35% by operating in the MFP (benefit limited to INR100mn per plant).**

For the owner/operator of the MFP, apart from the sale of leasable plots, the SPV of MFP earns through rental charges on the usage of infrastructure facilities (such as cold storage, food-processing charges etc.)

AP & Telangana account for 20% of investments in MFP

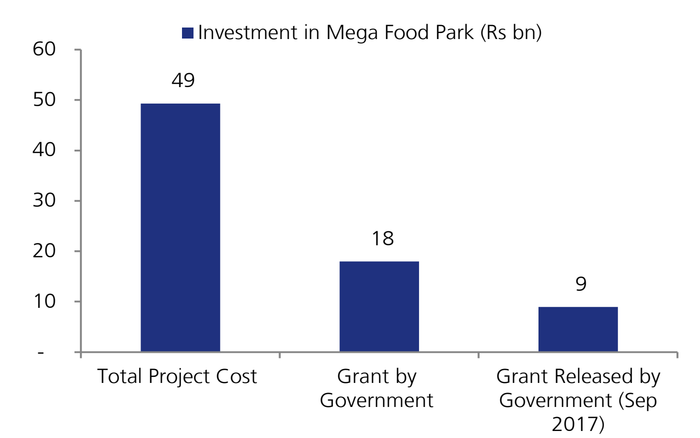
Among states, Telangana and AP account for c.20% of investment and including MP, Punjab, Maharashtra and Haryana, the top 6 states would account for c.50% of investment in MFPs. (exhibit above)

Exhibit 61. Mega Food Park – 2014 & 15 saw acceleration in approvals



Source: MoFPI

Exhibit 62. Investment of INR49bn in 41 Mega Food parks; 50% of Government grant released by Sep 2017



Source: MoFPI

The MFPs envisage a total investment of INR49bn, including INR18bn from Government grants and as of end Sep 2017, 50% of the grants had been released. The 41 MFPs are targeted to complete by 2020. In terms of approval, it was on an average 2-3 per year between 2009-13, which accelerated to 8 and 11 over the next two years as the National Democratic alliance (NDA) government came in power in May 2014.

Visit to MFP at Tumkur, Karnataka

We visited the MFP at Tumkur Karnataka (Future Consumer) and also saw progress and upcoming food parks in MP (Dewas) and Haryana (Sonipat).

Box 6: Visit to Mega Food park visit at Tumkur, Karnataka

- We visited the Food park at Tumkur (100 kms from Bangalore) during our Rural Safari and saw modern food processing facilities, warehousing facilities and multiple collection centres across the facility.
- The Integrated Food park at Tumkur, is spread across 110acres; it received final approval in 2011 and was completed in 2014. **The Food park is developed as a public private partnership between MoFPI and the Future group.**
- **The total investment in the facility has been INR1.4bn and the amount of grant approved from Government is INR500mn (released so far INR480mn).**
- The vicinity of Tumkur region is surrounded by the districts of Kolar, Shimoga which are rich in millets, oilseeds, vegetables and fruits. Food products produced at the facility are sold in the market through Future Group's retail formats including Big Bazaar, Food Bazaar, Foodhall, KB's Fairprice, Big Apple and Aadhaar.
- **Food and vegetables are procured from nearly collection centres and the existing mandis. The expansion of mega food park has provided relative stability and increased the fruits and vegetable procurement market.**
- The facility has 57 acres of leasable area (total 110 acres) and some other producers who have set up facilities are

  - **LT Foods**: Set up a milling, processing and storage facilities for Sona Mansuri Ruce, also to develop and market a range of snacks and also staple organic foods
  - **Sunkrist Growers,** a citrus marketing co-operative based out of California entered into an agreement with Future group and would source, manufacture and market its range of products
  - **Hain Celestial** – Organic food company which has leased land in the facility

- The food park targets to provide benefit to 15,000-16,000 farmers across the nearby region, enhance their income level as they shift to cultivation of higher remunerative crops (fruits & vegetables) as compared to cultivation of only coarse cereals earlier.

The Food park is expected to benefit 15,000-16,000 farmers in the region

Exhibit 63.- Mega Food Park, Tumkur – Spread across 110 acres – has leasable land of 67acres

Source: JM Financial

Exhibit 64. Mega Food Park, Tumkur – Provides modern food processing facilities, warehousing

Source: JM Financial

Exhibit 65. Mega Food Park – Tumkur, Karnataka – A sample of product output from the Food Park

Source: JM Financial

We also visited food parks at Sonipat, Haryana and at Devas, Madhya Pradesh which are still to be completed.

Exhibit 66. Mega Food Park – Sonipat, Haryana – Agri food processing companies expand operations within the park

Source: JM Financial

Exhibit 67. Mega Food Park – Dewas, MP – Construction work in progress, could take few years to scale

Source: JM Financial

Full benefits from MFPs still to be realised

Our interactions also indicated that there are few more challenges for increasing the effectiveness from Mega Food Parks. Some of the key challenges are

(a) Lack of formal contract laws to enter with farmers which could enable stable procurement for food processors

(b) Delays in land acquisition across MFPs

(c) Lack of quality standardisation at procurement centres around MFPs

<u>We do believe the successful expansion of the MFP can go a long way in aiding farm income growth and reducing the volatility in farmer income.</u>

(e) Land Leasing and Contract Farming laws should be framed on priority basis

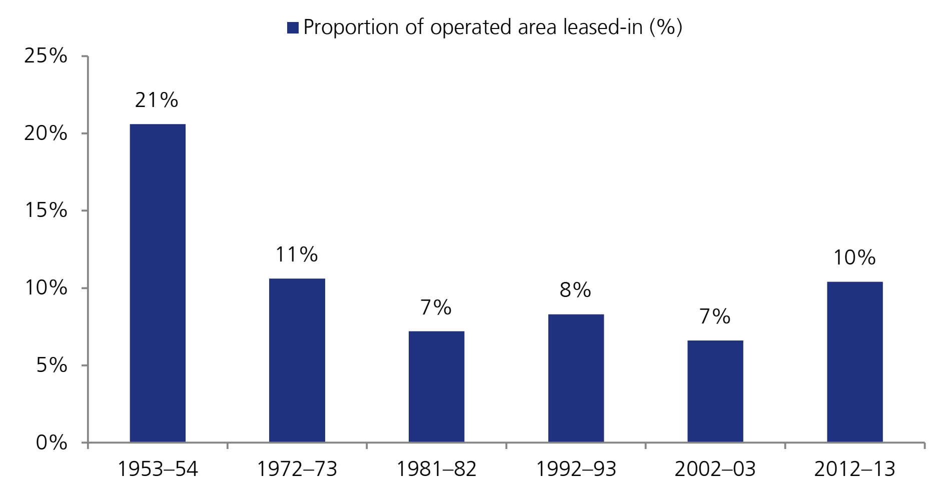
We have highlighted in our earlier reports about the lack of contract farming laws and land leasing laws as the key impediments for the expansion of contract farming in the country.

In India, land ownership is highly fragmented and a significant share of land titles comes under dispute. Another characteristic of Indian farming is the large share of cultivators who are not owners.

Almost 35-40% of cultivated land in India has tenant farmers

At the time of independence, almost 21% of land was shown under lease. Over the next few years, most of the state Government enacted tenancy laws giving rights to the tenant farmer and thereby, land leasing became more informal. As a result, by 2012-13, on a recorded basis only 10% of operated land area was declared as under lease (AP has highest at 35% of operated area), **while multiple studies have estimated leased land to be up to 40% of the operating land in the country.**

Exhibit 68. Around 10% of operated land area had been formally reported as leased land as of 2012-13, informally almost 35-40% of land is cultivated by tenant farmers



Source: NSSO, EPW

Implementation of modern land leasing laws a good beginning, need to accelerate the adoption across states

On land leasing, a draft model law formulated in 2016 by Niti Aayog and has consequently been adopted in few states. Some of the key features of the new model law are -

(a) Legalises land leasing and allows agriculture land to be used for allied activities (dairy, poultry, fruits & vegetable processing etc.)

(b) Ensures complete security of land ownership rights for land owners and security of tenure for tenants

(c) Allows the terms and conditions of lease to be determined mutually by the land owner and the tenant

(d) Facilitates all tenants to access crop insurance and bank credit

Among states Madhya Pradesh has enacted separate land leasing law and Uttar Pradesh and Uttarakhand have modified their land leasing laws. As per government reports, some states, including Odisha, Andhra Pradesh and Telangana, are at an advanced stage of formulating legislations to enact their land leasing laws for agriculture.

A good progress towards formal land leasing would enable access to credit for tenant farmers, crop insurance and thereby enable them to improve productivity and farm income. We would be closely monitoring the progress of the land leasing law across states.

Draft model contract law still awaited – could spur a big growth market

Contract farming, has a significant potential to improve the average farm income and reduce farm income volatility. However, lack of legislation around contract farming continues to be an impediment and there is an expectation from the Government to introduce it in the next few months. In the interim, there have been companies who have developed relationship with farming population through disseminating cultivation information, setting up procurement centres and also by providing socio-economic benefits (such as schools by Pepsi in Punjab).

Draft model contract law should be an urgent priority for the Government

We also interacted with food processing company such as LT Foods (maker of Daawat and Royal brand of basmati rice and other food products) and could see the potential improvement in productivity that can be brought through mechanisation and sustainable farming practices (example below).

Box 7: Increased mechanisation and spread of "on demand" model

- During our visit in Madhya Pradesh, we visited procurement and research centre of LT Foods. **We learnt about the different ways in which the company is aiding farmers in its vicinity to improve their farm productivity, while reducing total cost of cultivation.** The area of Bareli and Badi tehsil in Raisen district has good productive fields with reasonable ground water availability (available at 50-70 feet).
- The company provides information on the sustainable crop production (right usage of fertilisers, pesticides), effective water retention methods etc. The farmers who were earlier sowing Soyabean during Kharif season slowly shifted towards higher remunerative "basmati rice" as they received support in terms of knowledge, implementation and the whole sustainable farming model. **The company also procures rice from the farmers and assurance of procurement drives more farmers to associate with the company.**

Improved mechanisation drivers lower cost for a farmer

- We saw a rice transplant machine which is proposed to be used in the area and can significantly reduce time and labour requirements. As an example, by using the machine, 1 acre of rice can be transplanted in an hour, while for the same work, 8-10 workers were required at a cost of INR2,500-3,000 per day.
- The transplant machine increases crop yield due to (a) appropriate plant population control, (b) assured delivery of healthy disease free nursery transplants leading to lower costs for plant protection and (c) reduced pesticide usage.
- Once, there is effective utilisation of the machine (capital cost – INR1.2mn+), the cost for a farmer would come down and also the proper transplanting would lead to effective water usage as well as lower pest and weed incidences.

Exhibit 69. A rice transplanting machine at LT Foods, Madhya Pradesh

Source: JM Financial

Exhibit 70. Procurement centre (LT Foods) – provides assurance to farmers to engage with the company

Source: JM Financial

We also heard that there are other private players such as Reliance, Mother Dairy and Cargill that procure food crop output from this region. **Essentially, once a region develops and starts farming in an organised manner, it attracts further interest and eventually leads to higher income growth for the stakeholders.**

The farmers here also use agriculture machinery from new-age companies such as EM3 agri services, which provide agriculture equipment for hire and operate in multiple states including Madhya Pradesh, Rajasthan, Uttar Pradesh and the National Capital Region.

Non-Farm income trend – Multiple disruptions, acceleration in 2HFY18

Rural income is increasingly diversifying away from agriculture to non-farm income, which currently accounts for c.40% of the total agri. household income. Major sources of non-farm income are: **(a)** dairy and poultry, **(b)** wage-based occupation, **(c)** sand mining, **(d)** tractor rental income, and **(e)** small businesses. **Increase in infrastructure activity creates jobs and aids in rural income**. As the agro-economy improves, it is likely to create additional demand in the non-farm sector, including processing, transportation and packaging through backward and forward production linkages. However, this may only have a marginal to moderate impact on non-farm income and as such broader growth, to a large extent, is dependent on the degree of institutional investment as well as other local conditions, which in turn is governed by government policy.

Growth expected to accelerate after a slower 1HFY18 due to sand mining restrictions, GST disruption

Non-farm income though has been supportive over the past few years (but grew in low single digits, as per our estimate) and compensated partly for the decline in farm income during the past two years. The disruption from GST implementation, sand mining restrictions in few states (UP, Bihar, Tamil Nadu) has led to a weak 1HFY18 for non-farm income and we expect acceleration during 2HFY18 as the construction related activity revives and benefiting by the government's continued thrust on rural spending, infrastructure creation and irrigation spending.

Overall, the outlay on central schemes around rural related spending has increased at a CAGR of 17% between FY16-18. We witnessed infrastructure activity on road constructions, roads expansion, irrigation, housing during our trips which varied based on states.

Exhibit 71. Outlay on central schemes – 17% CAGR increase (FY16-18) on key schemes around rural India

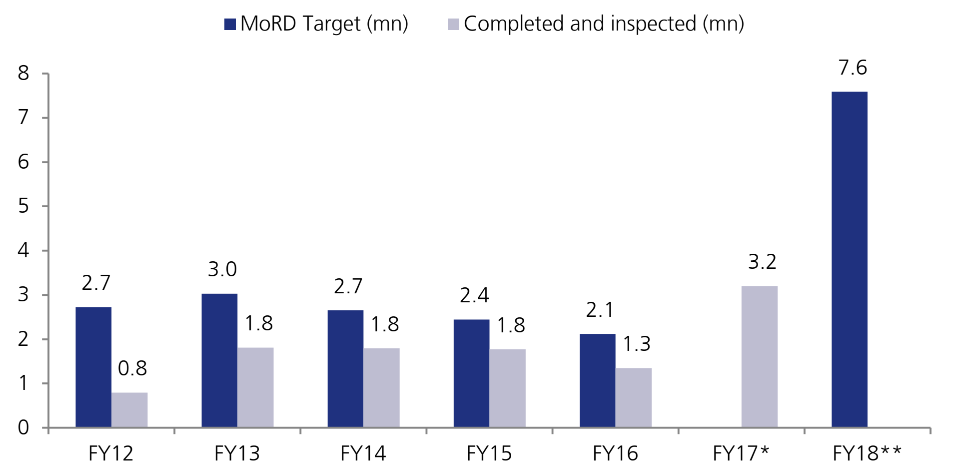
	Allocation – INR bn				YoY (%)			
Schemes (INR bn)	FY16	FY17BE	FY17RE	FY18BE	FY17 BE	FY17 RE	FY18 BE	FY16-18 BE -CAGR (%)
MGNREGA	373	385	475	480	3.1%	27.2%	1.1%	13.4%
PM Awas Yojana: Rural	101	150	160	230	48.3%	58.2%	43.8%	50.8%
National Rural Health Mission	183	181	195	212	-0.9%	6.6%	8.9%	7.7%
Pradhan Mantri Gram Sadak Yojana	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

Rural Housing – revival of sand mining to accelerate construction

Housing for all by 2022 remains a key priority of the current Central Government. Accordingly, the key rural housing scheme, PM Awas Yojana Grameen –PMAY (G) saw allocation increase of 44% YoY to INR230bn in FY18.

Exhibit 72. PMAY(G) – Ambitious rural housing construction target for FY18



Source: IAY, * - Completed the incomplete houses from earlier years under previous scheme, Indira Awas Yojana, **- Combined target of FY17+18 is to be constructed during FY18

Run-rate of housing completion for FY18 more than 2x of historical run-rate

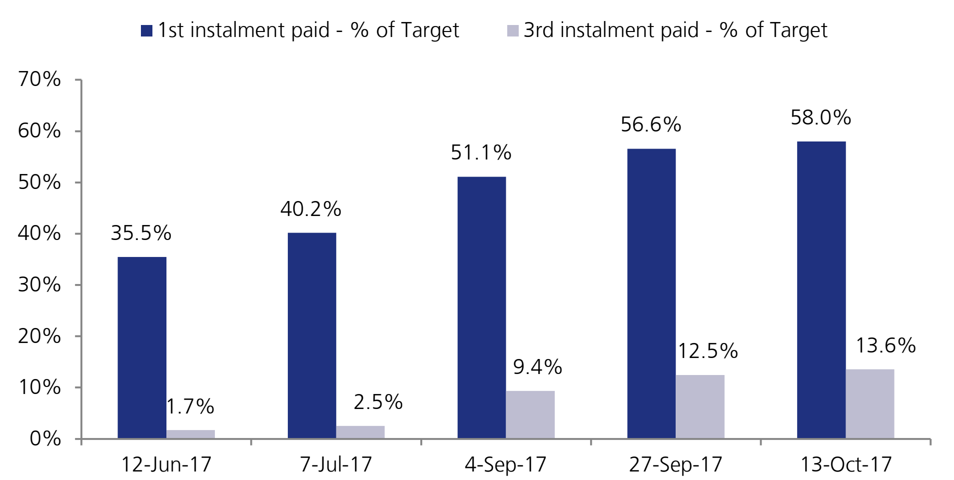
Over the past few years, the number of pucca houses built under the erstwhile rural housing scheme (Indira Awas Yojana) ranged at 1-2mn per year. As we detailed out in Rural Safari-V, the current NDA Government focused on completing the remaining houses from earlier years (FY11-FY16) and thereby completed 3.2mn houses during FY17.

The combined targets of FY17 and FY18 new house construction/repairs would be done in FY18 itself and thereby see a sharp acceleration. Overall, the Government plans to build 10mn houses during FY17-19, with 7.6mn allocated for FY18.

Madhya Pradesh and Chhattisgarh leading the rural housing construction

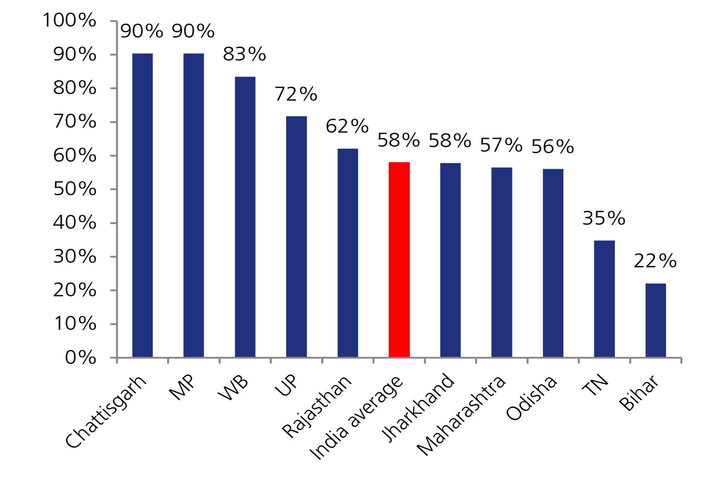
We are tracking the progress by states and as of mid-October 2017, an average of 58% of targeted beneficiaries (7.6mn) have obtained their first instalment, while 7% of the targeted houses have been completed as of now

Exhibit 73. Progress of PMAY (G) over FY18: 58% of targeted beneficiary started construction, pace to accelerate going forward



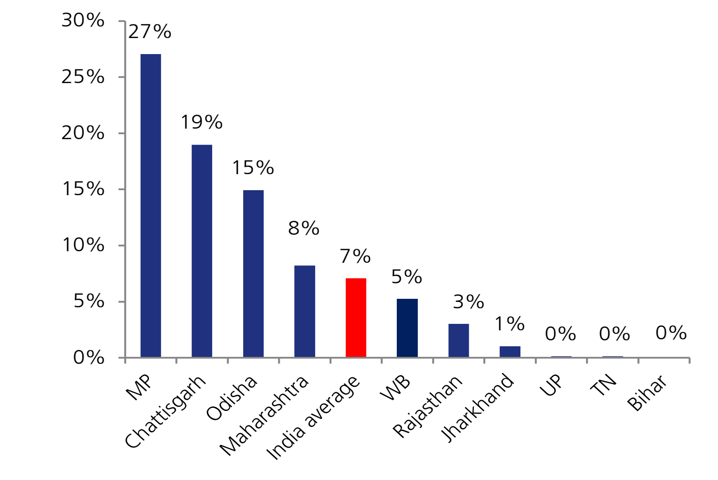
Source: IAY

Exhibit 74. PMAY (G) progress during FY18 – (1st instalment paid as a % of targeted households)



Source: IAY

Exhibit 75. PMAY (G) completion by states – Average of 7% completion by 13Oct'17, MP and Chhattisgarh lead



Source: IAY

The beneficiaries under PMAY (G) receive payment of INR120,000 in 3-4 instalments (based on states). We are tracking the progress by states and as of mid-October 2017, an average of 58% of targeted beneficiaries (7.6mn) have obtained their first instalment, while 7% of the targeted houses have been completed as of now.

MP and Chhattisgarh leading the housing construction among states

There is wide variance among states on the progress of the scheme. Madhya Pradesh, Chhattisgarh, West Bengal, UP and Rajasthan have done much better in terms of starting house construction, and MP/Chhattisgarh/Odisha have seen good completion rate so far. (Exhibit below)

Exhibit 76. High variation in construction progress across states under PMAY (G) for FY18

State	Target (mn)	Share of national target (%)	Beneficiaries Registered (mn)	1st installment paid (mn)	3rd installment paid (mn)	Completed and inspected (mn)
Bihar	1.2	15.5%	0.4	0.3	0.0	0.00
Uttar Pradesh	1.0	12.8%	1.0	0.7	0.0	0.00
Madhya Pradesh	0.8	11.0%	0.8	0.8	0.3	0.23
West Bengal	0.8	10.7%	0.9	0.7	0.1	0.04
Odisha	0.7	9.7%	0.6	0.4	0.2	0.11
Rajasthan	0.5	6.2%	0.6	0.3	0.0	0.01
Chhattisgarh	0.4	5.8%	0.5	0.4	0.0	0.08
Jharkhand	0.4	5.1%	0.3	0.2	0.1	0.00
Maharashtra	0.4	5.0%	0.5	0.2	0.0	0.03
Tamil Nadu	0.3	4.0%	0.2	0.1	0.0	0.00
Assam	0.3	3.4%	0.2	0.1	0.0	0.00
Gujarat	0.2	2.7%	0.2	0.1	0.0	0.00
Karnataka	0.1	1.9%	0.1	0.0	0.0	0.01
Andhra Pradesh	0.1	1.6%	0.1	0.0	0.0	0.01
Telangana	0.1	0.9%	-	-	-	-
Total (Top -15 states)	7.3	96.6%	6.3	4.3	0.9	0.53
Others	0.3	3.4%	0.2	0.1	0.0	0.01
Total	**7.6**	**100.0%**	**6.5**	**4.4**	**0.9**	**0 .02**

Source: IAY, Status as of Oct 13, 2017

Box 8: House construction visible in Madhya Pradesh

- We visited a village Ghat Pipaliya in Raisen district of Madhya Pradesh. The village is primarily inhabited by landless laborers or marginal farmers. Almost all the houses (100 households) are Kuctha in this village and under PMAY (G), 5-6 houses are under various stages of construction at present. .

Exhibit 77. Houses before PMAY allocations

Source: JM Financial

Exhibit 78. A house built under PMAY and additional investment by the occupant

Source: JM Financial

- We met the beneficiary of a house undergoing construction (exhibit above) and we could sense the optimism and excitement of the villager in getting a pucca house.
- The house is being constructed by the beneficiary himself and in between he engages a few labourers. As per the beneficiary, his estimate for the completion of house would come to around INR0.18mn, while he will be getting a total of INR 0.15mn from the Government.

Government aid of c.INR0.15mn per house construction in rural India

- In this village, most other residents are also looking forward to getting their names in beneficiary list, but do talk about biases in selection by the elected village representatives, a common refrain we have heard at multiple places..
- Our interactions indicated that once a pucca house is constructed, the consumption of electrical goods increases, though the initial beneficiaries would be the local/un-organised players.

Why the house construction progress had been low in states such as Bihar and UP during 1HFY18

Our interactions with officials indicated that the variance across states is on account of the verification process for beneficiaries. The original list of beneficiaries for house construction/conversion from kutcha to pucca house has been taken from the Socio-economic survey 2011 (SEC 2011). After that, the village Gram Sabha finalises the names of eligible beneficiaries with additional criteria such as the beneficiary household should not have a 4-wheelers/2-wheelers or have received any other house construction benefit earlier, etc. It is on account of these checks that states such as Bihar are faring low at present, and once the process is streamlined, we will likely see a strong rebound in growth in 2HFY18.

With the easing of sand mining restrictions, UP and Bihar expected to see sharp acceleration in housing construction

Additionally, one reason for slow completion of houses in both the states of UP and Bihar (0%) by mid Oct'17 is the sand mining ban (in UP from mid of April 2017, Bihar from July 2017). **We believe as sand mining regularises in these states, house construction will continue at a strong pace.**

GST transition challenges expected to abate going forward

GST, the new indirect tax regime was implemented from 1Jul'17 across the country and thereby our interactions with distributors/dealers/retailers/SMEs indicated the impact or comments after 2.5 months of the new regime.

The key feedback we heard from the smaller businesses around GST has been -

- Lack of clarity on the tax filing process in the new regime (more acute in semi-urban and rural areas)
- Increase in working capital requirements,
- Technical problems such as frequent downtime for the web-site, initial migration from excise/VAT registration to GST network
- Changes in taxation rules and processes created further uncertainty
- Lack of refunds for the exporters

GST led transition has impacted informal sector, expected to ease over the next few months

Overall, we did not find many centres to disseminate information around GST process, filing process across our visits.

Exhibit 79. Information on GST rollout and details visible in large cities

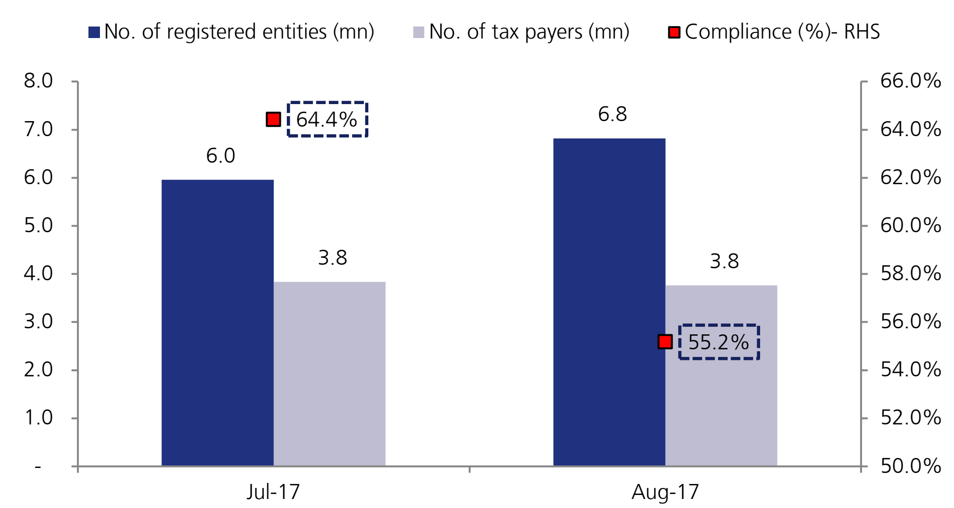
Source: JM Financial

Exhibit 80. SMEs and smaller establishment remained unclear on ways to go ahead with GST

Source: JM Financial

The implementation challenges are reflected in the weak compliance of 64%/55% of eligible taxpayers who filed returns during the initial two months of July/August'17.

Exhibit 81. GST tax payers – Compliance (tax payers/registered entities) remained weak and declined from 64% in Jul-17 to 55% in Aug-17 filings



Source: PIB, excluding 1.02mn assesses who have opted for composition scheme, Total tax payer base in earlier regime: 7.23mn

The implementation challenges are reflected in the weak compliance of 64%/55% of eligible taxpayers who filed returns during the initial two months of July/August'17

Formalisation of the economy aided by GST

Over our travel and interactions across the country, it does seem that the unorganised sector on an average is facing severe challenges in its business operations in the new GST regime. It will still be early to conclude, but even in semi-urban places such as outskirts of Varanasi, Bhopal we could see the organised retailers gaining market share vs. the unorganised unbranded players.

Shift from informal to formal channel very visible across the country

Exhibit 82. Initial signs of shift from unorganised to organised sector aided by GST implementation

Description	Key impact	Comments
Consumer Durables retailer, Varanasi - has a chain of 10-12 organised retail stores in Eastern UP	Benefit to organised player	We had good festival sale and continue on growth track. Benefiting from unorganised to organised shift and if the organised do not cope up they will vanish
SME manufacturer, Gujarat	Headcount decline for unorganised player	Demand has been weak and have cut down number of employees from 500 to 300 in Oct'17
large retailer, Rajamundhry, Andhra Pradesh	Decrease in business for unorganised players	GST will force unorganised retailers/wholesalers and they will either come into the system or go out of business. Over the past 3 months, the number of cases without GST bill has drastically reduced. In the near term, wholesalers may become reluctant to continue supplies to villages with very low number of GST registered retailers, as it may impact the wholesalers' economies of scale. This could impact business for some time
Large FMCG distributor, Karnataka,	Challenges in conducting business for unorganised player	GST has forced Kirana wholesalers to maintain records of all products, making it difficult for them to sell unorganised players' brands. This has further caused some agitation among Kirana businessmen (apart from Demonetization and low rain).
SME manufacturers, UP	Headcount reduction for unorganised players	Demand trend remains weak and might have to reduce my cost to cope up with the new reality
Bajaj Automobiles, Q2FY18 Conference call	Business shift from unorganised to organised	With GST, distributors will find it difficult to buy from manufacturers who do not pay tax i.e without invoices. Retailers have problems with GST.

Source: JM Financial

However, the key risk from any sharp decline of unorganised sector is the challenge it will create for employment opportunities and already some signs are indicating initial loss of jobs from the factories run by unorganised players.

Exhibit 83. An SME agri-manufacturer in UP has seen decline in sales and thereby could rationalise his work force

Source: JM Financial

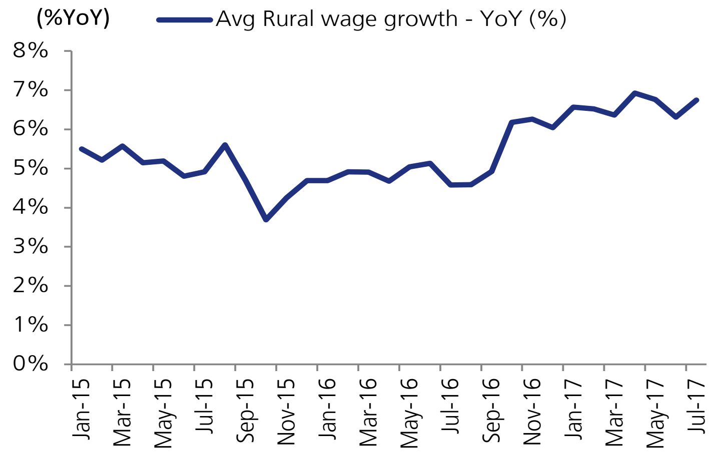
Exhibit 84. Agri-input SME with products selling at INR5-50K/unit, organised players price up by more than 20-30%

Source: JM Financial

Rural wage growth remains steady

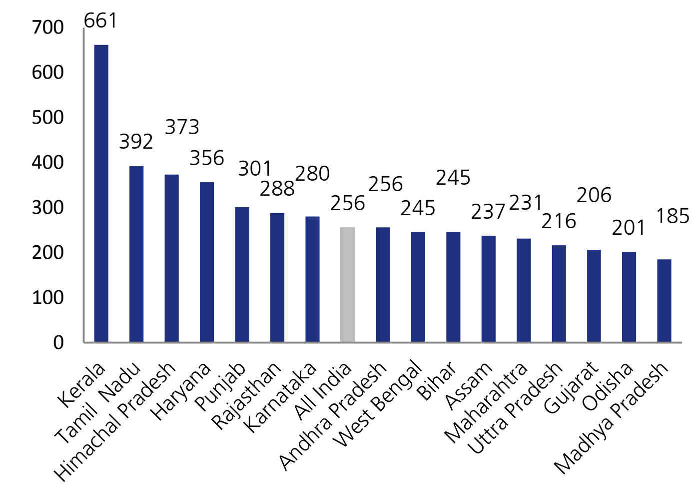
Rural wage growth has been on increasing trend over past few months, but still remains in the range of 6-7% YoY growth. Among states, there is a significant variation on rural wages based on employment opportunity and available labor pool.

Exhibit 85. Rural wage growth trend – Remains in high single digit, though on increasing trend



Source: CMIE

Exhibit 86. Rural wages across states – Wide variance across states

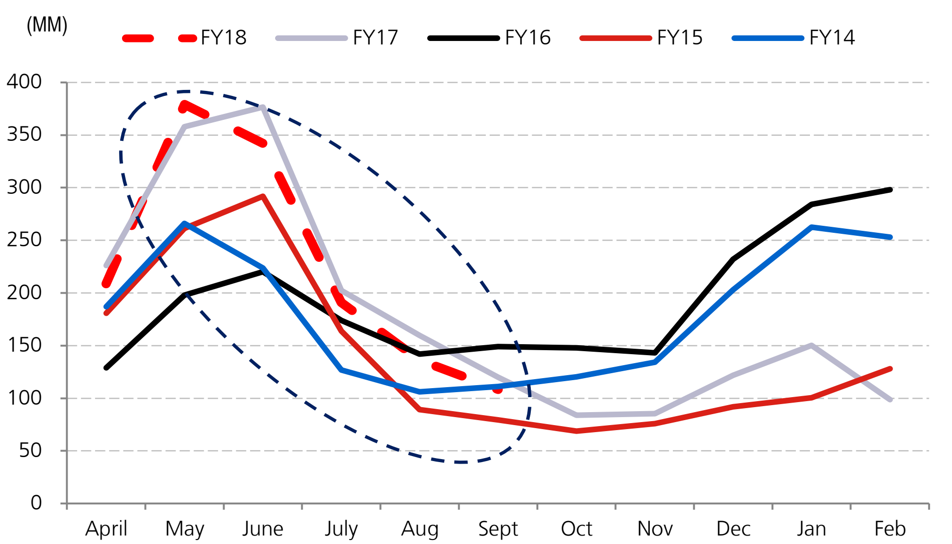


Source: CMIE, wage rate for FY16

It is to be noted that despite GST led disruption in July/August, so far we have not seen increase in the demand for MGNREGA and it largely tracks the trend of previous year.

No major uptick in rural wage growth, MGNREGA also trending on last year's run-rate

Exhibit 87. MGNREGA wage payment trend (million man days)- Overall number trends so far in line with last year's demand



Source: MGNREGA

What did we observe on non-farm income during our Rural survey?

Exhibit 88. Highway construction work in UP– snd mining ban has impacted construction during 1HFY18

Source: JM Financial

Exhibit 89. Bihar, similar to UP, sand mining restrictions had halted the construction work during past two months

Source: JM Financial

Exhibit 90. Metro construction –In full swing at Nagpur

Source: JM Financial

Exhibit 91. Metro construction - Nagpur metro work in full swing

Source: JM Financial

Exhibit 92.Toilets build under Swachh Bharat Mission – Highly visible in Madhya Pradesh

Source: JM Financial

Exhibit 93. Road expansion work visible across many areas in our visit

Source: JM Financial

Exhibit 94. State-wise comments on infrastructure/non-farm income levels

State	Rainfall Deficit (5)	1HFY18	Outlook	Comments from Rural Safari
Gujarat	19%	⇔	↑	Steady infrastructure work, focus on irrigation projects and reconstruction work from floods, spending from new Government projects to drive healthy growth
Andhra Pradesh	19%	⬆	⬆	Continued activity around the build-up of new city of Amravati which would drive construction related spending over the next 3-4 years. The additional funding of Polavaram dam project (INR580bn) will be a key source of infra spending in the state
Maharashtra	-5%	⇔	⇔	Steady infrastructure work, metro constructions at Mumbai/Nagpur continue at good pace but not much additional work across the state
Punjab	-21%	↑	↑	Steady infrastructure activity driven by Government projects. Post-harvest, we are likely to see investments in rural investments (housing, irrigation)
Haryana	-25%	↑	↑	Steady activity levels around road/construction on areas near the NCR region, while regular maintenance activities in the other regions of state. Post-harvest (from Nov'17), likely to see increased investments in rural housing
Telangana	-15%	⬆	⬆	High infrastructure activity levels driven by Government spending - irrigation projects, road construction etc.
Bihar	-8%	⬇	⬆	The floods during current monsoon have impacted almost 1/3rd of the state and a large re-building activity would be seen over the next few months. Sand mining has been halted in the state since the end of July (with the change in alliance partners). Construction activity therefore had sharply halted in the state during August, September and has slowly restarted from October. Rural housing construction is likely to see a sharp jump in the state
Uttar Pradesh	-29%	⬇:	⬆	Ban on sand mining and overloading of sand trucks (from April 2017) had sharply halted construction activities (price of sand rose 5x). Sand availability has improved from late September and consequently should see sharp acceleration in growth during next few months. Rural housing, infrastructure development (roads) are the key areas of investment.
Madhya Pradesh	-20%	⬆	↑	High activity levels around rural housing (PMAY), steady infrastructure work around road construction and rural electrification. A weak farm output from the current Kharif season is likely to dampen the private investment going forward
Karnataka	-13%	⇔	↑	High investments in Irrigation projects and likely acceleration of spending by the state Government as state elections are due next year.
Tamil Nadu	33%	⬇	↑	Moderate to weak infrastructure activity levels because of low sand availability. Likely acceleration in investments on account of a good monsoon

Source: JM Financial Source: M Financial, Legend ⬆: Strong ↑: Modest ⇔: Flat ⬇: Decline, The comparisons are over similar period last year, States listed in the order of growth in farm income

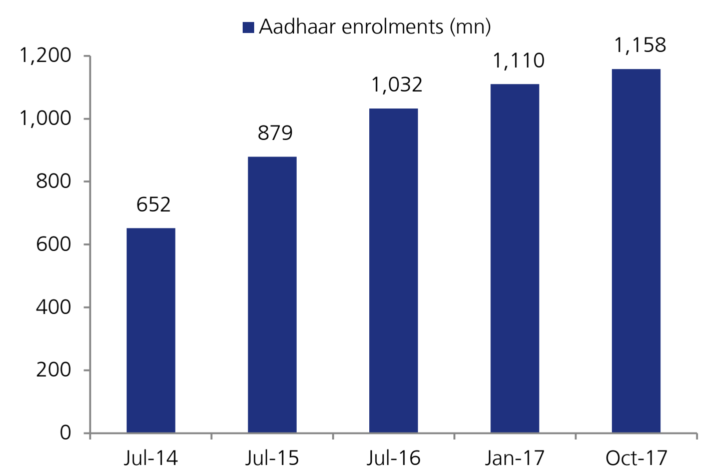
Medium term changes across rural India

(a) Increasing financial inclusion and broad-band access

The past few years have seen steady progress towards Aadhaar enrolments (2x between Jul 2014 to Oct 2017) and now 88% of the population base has enrolment and the Government continues to push ahead for further increasing the penetration

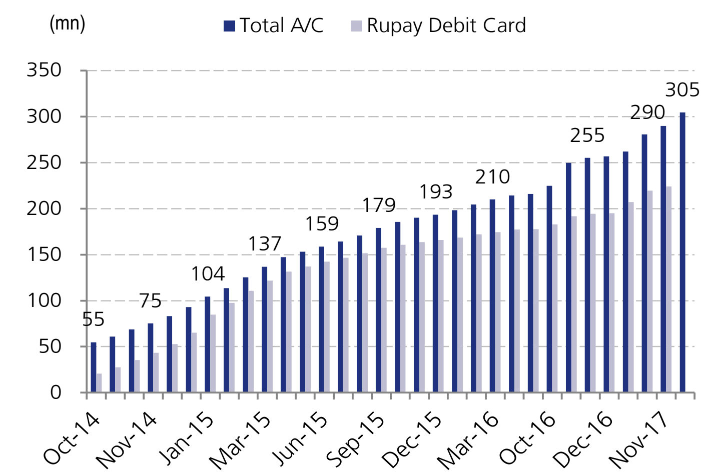
Financial inclusion through increase in bank accounts for the erstwhile unbanked population is reflected in the 300mn+ bank accounts under Pradhan Mantri Jan-Dhan Yojana (PMJDY) with c.60% accounts opened in rural areas.

Exhibit 95. Aadhaar enrolments – 88% of the population at present has Aadhaar enrolments



Source: UIDAI

Exhibit 96. PMJDY accounts – 300mn accounts with c.60% rural coverage



Source: PMJDY

The banking infrastructure and access has clearly improved over past few years, particularly with the increase in branchless mode (BC) access points. Consequently, number of rural bank accounts have jumped 6x over 2010-17,

1bn+ Aadhaar cards, 300mn+ PMJDY accounts by Oct'17 sets a good base for expanding DBT

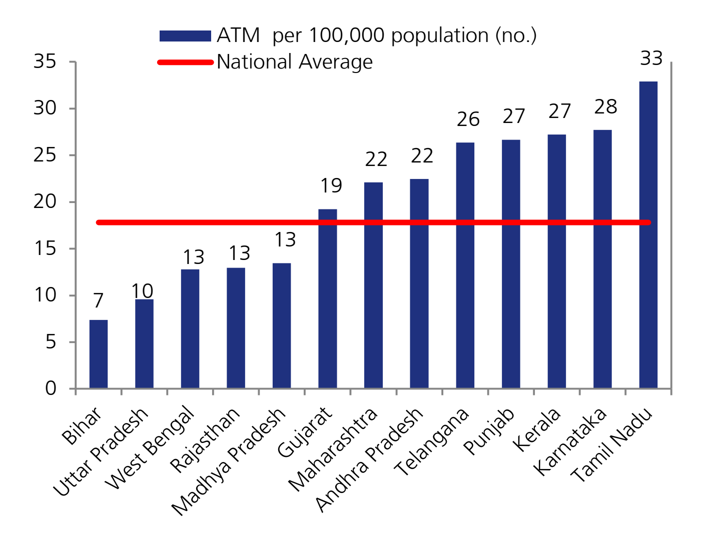
However, there is wide disparity in the banking infrastructure across states with North and East Indian states, still lagging significantly in terms of access.

Exhibit 97. Significant improvement in financial inclusion across past few years in rural India

Category	Mar-10	Mar-15	Mar-17	Mar-17/Mar-10 (x)
Village – Bank Branches	33,378	49,571	50,860	2
Villages – Branchless Mode (BC)	34,316	504,142	534,477	16
Banking Outlets in Villages –Total	**67,694**	**553,713**	**585,337**	**9**
Basic Savings Account (mn) (Total)	73	398	469	6
Out-standing amount (INR bn)	55	440	638	12
Average amount per account (INR)	753	1,106	1,360	2
Kisan Credit Cards - KCC (mn)	24	43	47	2
KCC (Amount outstanding) - INR bn	1,240	4,382	5,131	4
Average credit amount per KCC (INR)	**51,667**	**101,907**	**109,170**	**2**

Source: RBI

Exhibit 98. Financial infrastructure and penetration varies significantly across the country



Source: RBI, Jun-16

As a result of improvement in banking access, the number of schemes and subsidy benefits under direct benefit transfers has increased from initial 27 schemes to 140 schemes by March 2017.

Out of the fund transfer of INR18.2tn, 29% was transferred through Aadhaar payment bridge. During our travels and interaction we came across many instances where the leakages have reduced on account of DBT usage and end beneficiaries are able to obtain benefit.

We are optimistic that with the expansion of JAM trinity ("Jan Dhan", Aadhaar, Mobile), a clear improvement in the income levels of end beneficiaries would accrue over the next few years.

Exhibit 99. 29% of Funds transferred in key Central Government schemes down through Aadhaar payment bridge

	Beneficiaries (mn)			Funds Transferred - INR bn			
Schemes	No. of beneficiaries (mn)	Beneficiary data seeded with Aadhaar (mn)	% of Beneficiaries seeded with Aadhaar (%)	Aadhaar Bridge payment	Electronic fund transfer	Total	% of fund transfer using Aadhaar Bridge payment (%)
MGNREGS	112	91	82%	1,335	6,983	8,318	16%
National Social Assistance Programme	28	14	52%	296	1,777	2,073	14%
PAHAL (DBTL)	187	153	82%	3,555	1,653	5,208	68%
All scholarship schemes	23	12	52%	87	2,102	2,190	4%
Other schemes	8	3	37%	26	452	478	6%
Total	**357**	**274**	**77%**	**5,300**	**12,967**	**18,267**	**29%**

Source: DBT, Data for period of 1st Jan 2013 to 31st March 2017

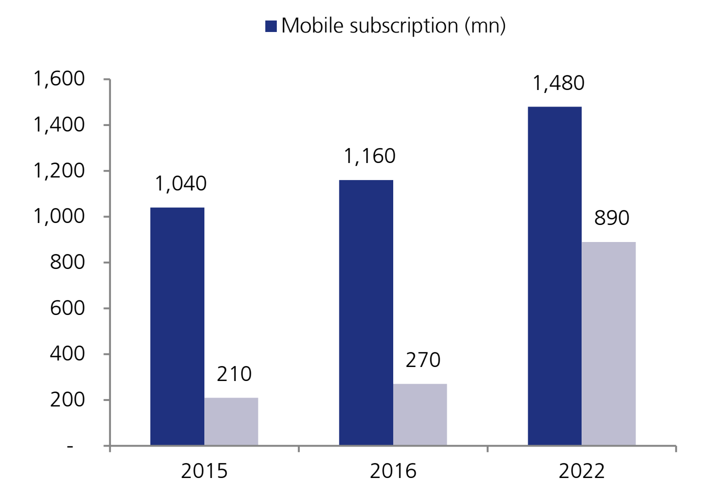
Mobile broadband coverage – enabler of key transformative changes

During our travel across the states, we could not miss the silent transformation occurring across regions driven by the increased mobile broad-band usage, particularly in the tier-2 & 3 cities and towns.

Mobile data usage has jumped 3x in last two years

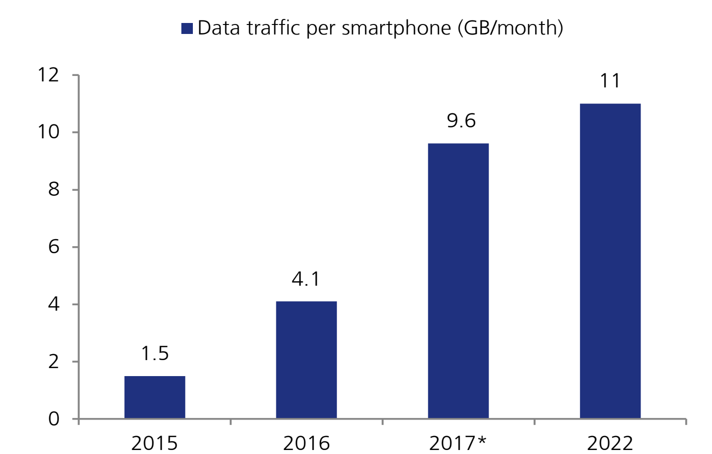
Over the years, mobile subscription (urban: 167% penetration, rural – 57% as of Jun'17) and internet user base has expanded rapidly (urban-73%, rural–16%).

Exhibit 100. Smartphone penetration in India expected to increase from c.20% in 2016 to 65%+ by 2022 (whole country)



Source: Ericsson Mobility report

Exhibit 101. Data traffic/smartphone has surged 3x in 2016 over 2015. Post launch of Reliance Jio, data traffic/smartphone has become 6x+ in last 2 years



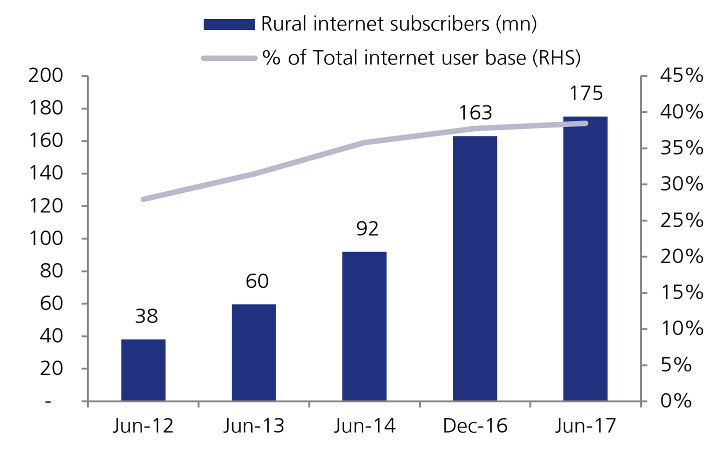
Source: Ericsson Mobility report, 2017 data for Reliance Jio (Sep 2017)

Sharp jump in usage of mobile data across semi-urban and rural India

After the connectivity enabled by voice (mobile), it is the data usage growth that is likely to bring in transformation across tier-2,3 towns and in rural India as we saw through some of examples listed ahead.

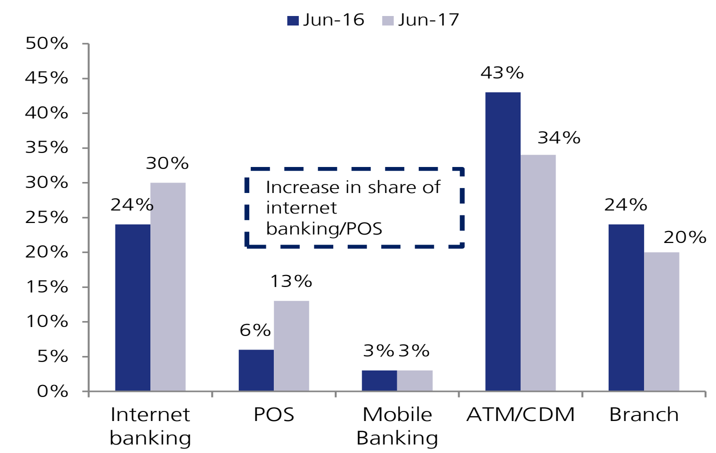
The data usage in India jumped 3x between 2015 and 2016, and now with the expansion in Reliance Jio (launched July 2016), data access rates have jumped to 9.6GB/month per user. Overall, data access rates are forecast to increase at 18% CAGR over the next five years driven by expansion in 4G coverage (Reliance Jio will cover 95%+ population by 2018, other operators also continue to invest in improving 4G coverage).

Exhibit 102. Internet user base reaching 200mn users, still significant scope for increase in penetration



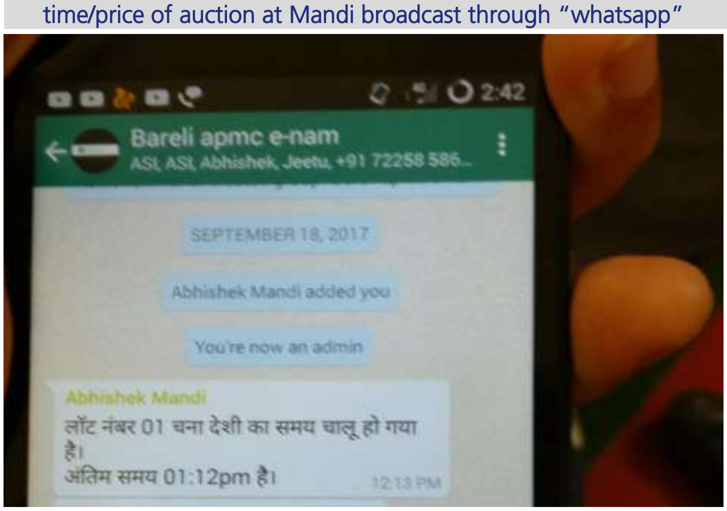
Source: IAMAI

Exhibit 103. Share of transaction volumes across channels for SBI group- A clear shift towards internet banking and POS channel



Source: SBI, 1Q18

Exhibit 104. Use of mobile broadband – Information about the time/price of auction at Mandi broadcast through "whatsapp"



Source: JM Financial, Note: Barely Mandi, Raisen District, Madhya Pradesh

Exhibit 105. A visit to rural and semi-urban areas is bound to show increasing advertisements of Reliance Jio

Source: JM Financial

Broadband enabled video usage can aid in bringing transformational changes at villages

We also saw examples during our visit that indicate that several transformative changes can be brought about through the information obtained from the audio-visual medium. One of the key challenges of adoption of new technology/process in rural India is the lack of awareness and knowledge of the processes (such as scientific way of farming, timing of pesticide sprays, storage of produce etc.). However, we believe the easier availability of videos with the expansion of 4G across the country will likely aid information dissemination and eventually adoption of better farming/new technologies by the rural population, as the example below illustrates.

Box 9: Adoption of simple solution enhances onion storage from 2 months to 9 months

- We interacted with farmers at Pachamah village in the Sehore district of Madhya Pradehs. Farmers in this region have taken up cultivation of onions in a big way over the past few years, as it can be highly profitable than the regular cereals/soybeans which are grown in this region.
- However, a key challenge is the proper storage of onions, as the price levels fluctuate significantly and only for a few months over a cycle, prices go up and then the farmer wants to sell his produce.
- In the traditional storage method, farmers could store the onions in a saleable condition for only 2-3 months. They were aware of a method whereby using ventilation and fans in a proper way, the storage duration could be increased manifold to 8-9 months. **However, they could not implement the solution in practice without more details.**
- However during 2017, with the improvement in mobile broad-band, they saw videos on the enhanced storage method of onions and implemented the solution in-house. The solution entailed installing exhaust fans, iron nets in the storage space and incrementally at the cost of only INR3,000 for one room of storage which can store 200qtl of onions or potentially around INR0.16mn.
- **Once, a farmer installed the solution, other farmers have also started replicating the storage solution.**

Access to video enabled the farmers to adapt new storage solutions at a very low cost

Exhibit 106. Manual storage of onions – can be stored only for 2 months or so

Source: JM Financial

Exhibit 107... Simple adoption of technology in storage – enhances the storage duration up to 8-9 months at minimal incremental cost

Source: JM Financial

Mobility solutions help reduce time of loan processing, increase access and lower cost for financiers

The improvement in technology/mobility infrastructure is clearly benefiting rural/semi-urban financiers as they improve their under-writing processes, scale better and also reduce cost of operations.

Our visits (to NBFCs and MFIs) indicated the improvement in data and analytics is enabling loan decisions to be made within few hours in many cases against few days earlier. In addition, the feature of geo-tagging enables much better compliance and monitoring of sales personnel

Exhibit 108. Usage of technology to improve operations across companies we visited

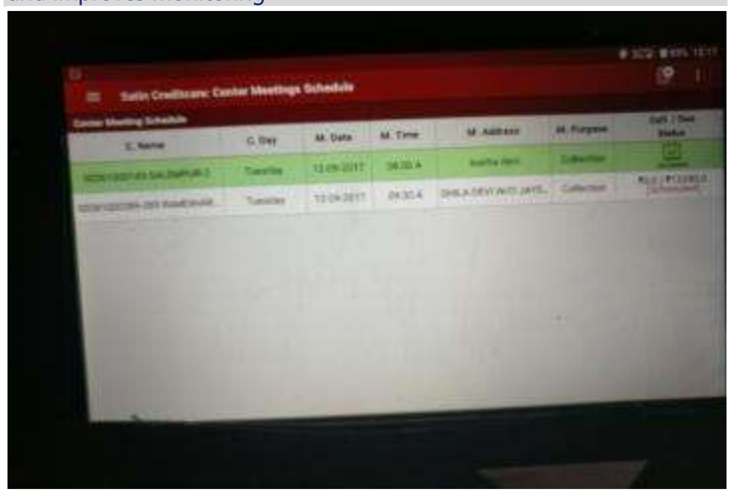
Magma (Asset backed financier)	Satin Credit Care (Microfinance)
i) All collection officers are now provided tablets and every activity of their officers is tracked through geo- tagging.	i) Aadhar card has been mandatory, which helps to filter duplicate loans.
(ii) Company heavily uses analytics to improve its underwriting practices which has helped it to reduce decision time to 6 hours	ii) Collection officers have been given tablets which helps the company to monitor collections on real time basis and track misreporting

Source: JM Financial

Exhibit 109. Use of tablets for Microfinance sales personnel enhances tracking and real-time analysis of borrower profile

Source: JM Financial, Satin Creditcare

Exhibit 110. Usage of iPads and electronic tabulation reduces error and improves monitoring



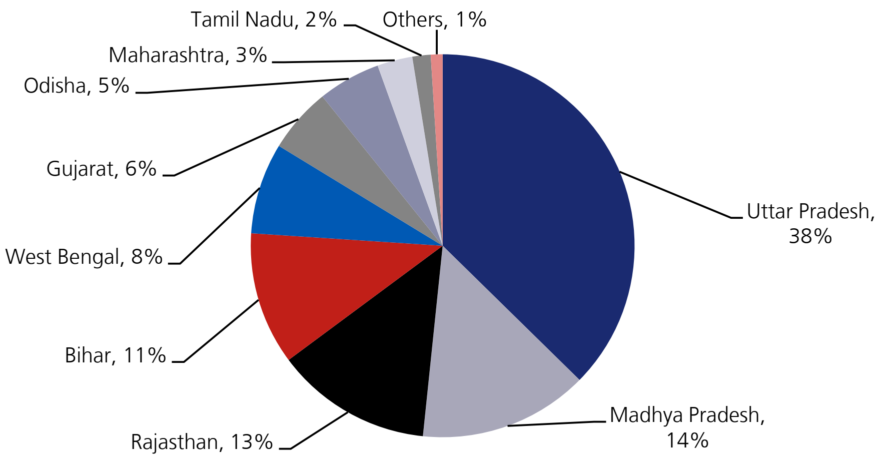
Source: JM Financial, Satin Creditcare

(b) Ujjwala Yojana progress visible across states

Pradhan Mantri Ujjwala Yojana is a social welfare scheme launched on 1May'16 from Ballia in Uttar Pradesh. The scheme aims at providing free LPG connections to BPL families by waiving the INR1,600 connection cost. As per reports, 30mn house-holds have already been provided LPG connections under this scheme and the overall plan is to spend INR8b0bn over FY17-FY19

The identification of BPL families will be done through Socio Economic Caste Census Data. It is mandatory to have an Aadhar card as well as a bank account in the name of the beneficiary. States in North and East India are key beneficiaries of this scheme.

Exhibit 111. Share of LPG connections distributed across states



Source: PIB, Data as of end 2016

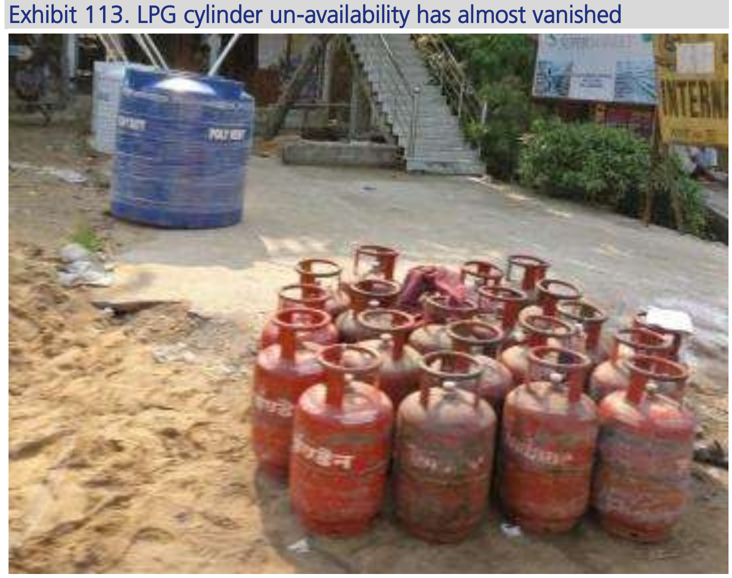
UP & MP accounted for c.52% of LPG connection distribution

During our travel across the country, we saw increased usage of LPG-based cooking across states in rural regions. Once even if a few people get the free connection, others are encouraged to adopt and thereby improve the adoption of LPG-based cooking across states.

Exhibit 112. Cooking shifted to LPG at a village in Ara, Bihar

Source: JM Financial

Exhibit 113. LPG cylinder un-availability has almost vanished

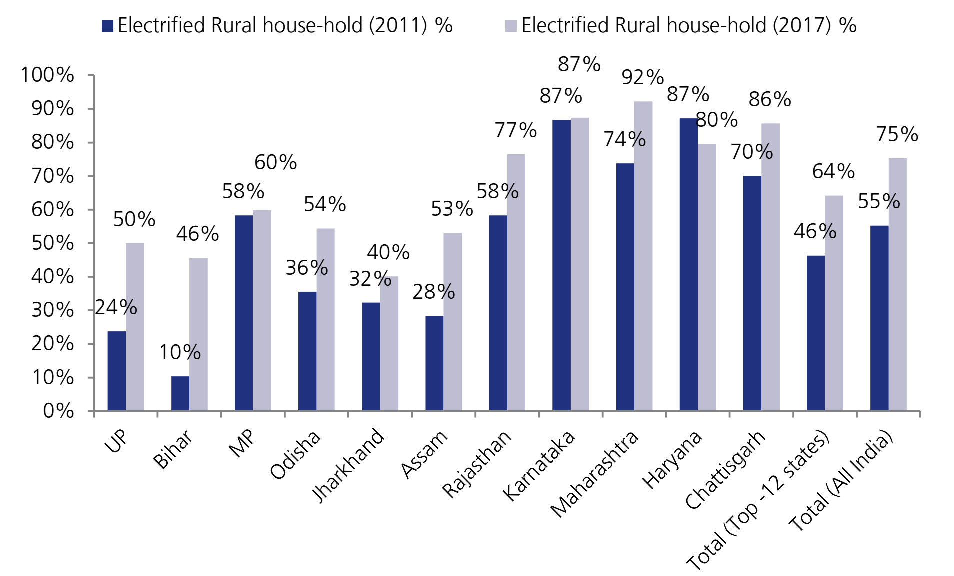


Source: JM Financial

(c) Rural electrification progress to add demand for consumer appliances

During the past few years, India has seen steady improvement in rural electrification, with 75% of rural house-holds having electricity access at present, against only 55% in 2011. Despite good progress 25% or 44.3mn house-holds are yet to be provided access to electricity. Among states – UP, Bihar, MP, Odisha and Jharkhand account for 76% of the un-electrified house-holds.

Exhibit 114. Steady progress in rural electrification – 75% of rural households have electricity access at present, against 55% in 2011



Source: DDUGJY, Data as of Jun 2017

Exhibit 115. 44mn rural house-holds still unelectrified, 5 states account for 76% of unelectrified households

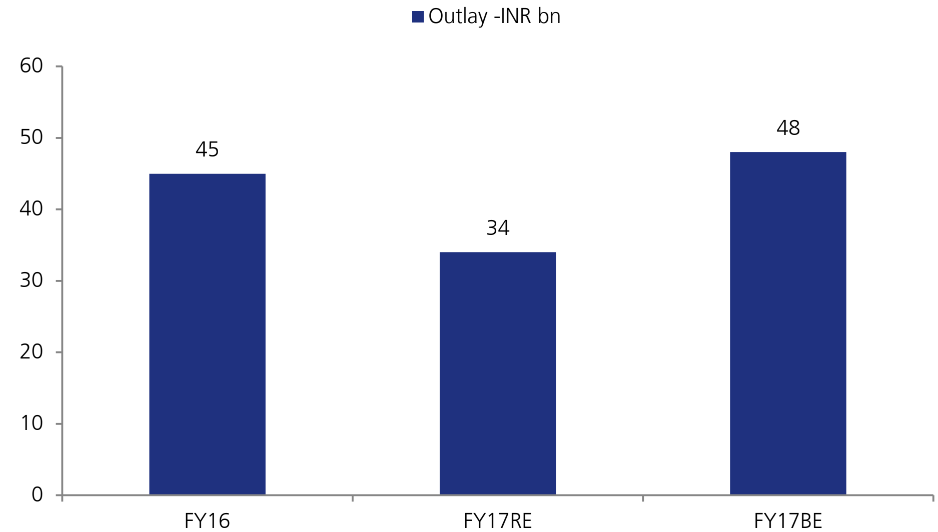
States	Total Rural Households (mn)	Electrified house-holds (mn) -2017	Un-electrified house-holds (mn) - 2017
UP	30.1	15.0	15.1
Bihar	12.3	5.6	6.7
MP	11.4	6.8	4.6
Odisha	8.4	4.6	3.8
Jharkhand	5.7	2.3	3.4
Assam	5.2	2.8	2.4
Rajasthan	9.0	6.9	2.1
Karnataka	9.6	8.4	1.2
Maharashtra	14.0	12.9	1.1
Telangana	6.0	4.9	1.0
Haryana	3.4	2.7	0.7
Chhattisgarh	4.5	3.9	0.6
Total (Top -12 states)	119.6	76.8	42.8
Total (All India)	179.2	134.9	**44.3**

Source: JM Financial, DDUGJY, Data as of Jun 2017

Five states account for 76% of unelectrified rural households in India

The Government has stated providing universal electricity access as one of its key focus areas and the flagship rural electrification scheme, Deen Dayal Upadhyaya Grameen Jyoti Yojana (DDUGJY) has seen 42% YoY increase in outlay during FY18 budget.

Exhibit 116. Outlay on DDUGJY, flagship scheme for rural electrification



Source: Union budget, JM Financial

Improvement in electricity access, lower voltage fluctuations to drive consumer electrical growth

We have noted during our multiple visits around rural India (particularly in North and East) around **(a)** improvement in electricity access, **(b)** increase in usage duration and also the **(c)** improvement in quality (lower voltage fluctuations). **We believe steady progress in electrification and improvement in quality of access would drive growth in consumer electrical and appliances over the next few years.**

Exhibit 117. Major categories in Consumer electricals, market size and key players

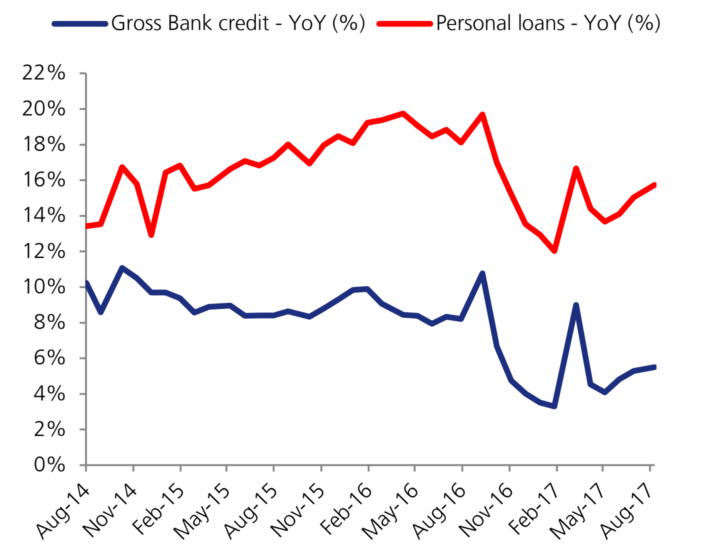
Product categories	Market Size (INR bn)			Key players with indicative market share (on overall size)
	INR bn	Organised	Un-Organised	
Lighting	180.0	60%	40%	Philips (12%), Surya (7%), Crompton (6%), Bajaj Elelctricals (5%), Havells (4%)
Industrial cables	120.0	NA	NA	Polycab, Finolex cables, Havells (15%), KEI Industries (10%)
Housing wire cable	80.0	60%	40%	Finolex cables (20%-25%), Havells (16%), V-Guard (7%), KEI Industries (5%)
Pumps (all types)	92.5	70%	30%	Kirloskar (12%), CRI (12%), Crompton (8%), KSB (7%), V-Guard (2-3%)
Fans	60.0	90%	10%	Crompton (25%), Orient (16%), Usha (16%), Havells (15%), Bajaj Electricals (11%)
UPS/Inverters	56.5	82%	18%	Luminous (40%), Microtek (7%-9%), V-Guard (3%-5%)
Switchgears	42.0	NA	NA	ABB, Siemens, Shneider, Legrand, Havells, Anchor (Panasonic)
Stabiliser	12.5	56%	44%	V-Guard (20-25%), Premier (2%), Blue Bird (1%), Capri (1%)
Water heaters	26.3	66%	34%	Racold (11-12%), V-Guard (9-10%), Bajaj Electricals (7-8%), Havells (4-5%), AO Smith (4-5%), Crompton (3-4%)
Kitchen and Home Appliances	166.3			Bajaj Electricals, TTK Prestige, Preethi (Philips), V-Guard, Havells, Orient, Polycab, Panasonic
Total	**836.0**			Havells, Polycab, Crompton, Finolex Cables,Bajaj Electricals, V-Guard,

Source: Havells, Crompton, V-Guard, TTK Prestige, ELCOMA, Company annual reports, JM Financial

(d) Expansion in retail credit aiding consumption even in rural India

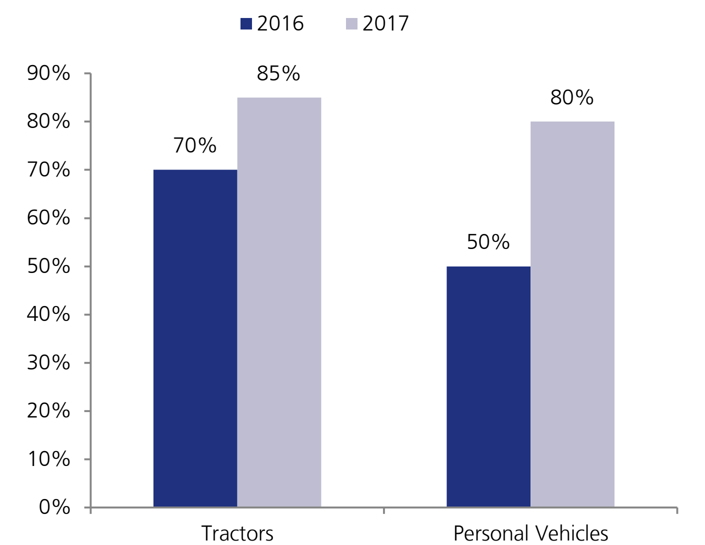
The growth in retail credit has far exceeded (15-20% YoY) the total banking sector credit growth (mid to high single digit) over the past few quarters. Retail credit has also remained healthy for the Non-Banking Financial Channels (NBFCs).

Exhibit 118. Banking - Personal (retail) loan growth continues to remain strong and much ahead of total credit growth



Source: RBI, Non-Food credit

Exhibit 119. Share of financing (%) from rural customers has jumped in last one year -



Source: JM Financial, Haryana

One of the impacts from Demonetization and lower usage of cash is reflected in the increase in share of financing requirements even at the rural markets. We believe the rural informal financiers (moneylenders) have scaled down their activity levels and thereby financing requirements have increased from formal channels. During our travel in Haryana, we also gathered that the share of financing for Personal Vehicles is up from 50% pre-demonetisation (Oct'16) to 80% at present and financing share for Tractors has gone up from 70% to 85% in the same period for rural customers.

Increased financing seen in consumer purchases

In terms of consumer durables, a significant shift in behaviour is underway and is driven by companies such as Bajaj Finance and Capital First. **We could see the increased awareness and usage of 0% financing even at Tier-3 towns and rural regions**. Under 0% financing, the consumer does not have to bear interest, while the financier charges commission to the retainer.

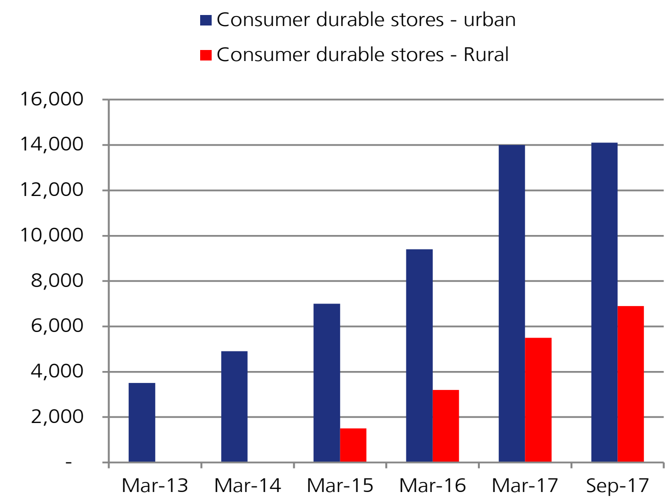
We heard at multiple places around increase in share of financing by rural consumers over past one year

Consumer financing companies have been scaling up their presence across rural segments during the past few years which is reflected in the geographic expansion of leading consumer durables financier, Bajaj Finance. **Starting from FY15, the number of rural consumer durables store where it has presence has increased to 1/3rd of its total retailer base from nil at FY14.**

Exhibit 120. One big driver for consumption can be traced to availability of consumer financing – A sample EMI card for a consumer at MP

Source: JM Financial

Exhibit 121. 1/3rd of financier, Bajaj Finance's presence at consumer durables stores now in rural regions, up from nil few years back



Source: Company

Box 10: Expansion of consumer financing among regular wage worker segments/factory workers

- We interacted with an unorganised electronics retailer in Haryana in an area surrounded by factory workers. The customers for this retailer were factory workers with average salary of INR10k-40k/month.
- The normal consumption pattern for these workers was to spend once they received their salary in cash on foods/drinks or any other consumer durable/electronic items.
- There are two significant shift that has been observed over the past one year–

  - (a) A number of workers are now getting salary in their bank accounts and this reduces their behaviour of impulse purchases, and

  - (b) Awareness about financing has increased and now even the workers are going to organised stores where they can get their purchase on 0% finance.

  Eventually, the sales volume of the unorganised retailer continues to go down and we believe this trend of shift from unorganised to organised will gain further with the increase in financing availability at the organised retail levels.
- We also heard similar instances in various towns and their adjacent rural areas of Varanasi, Patna and also noted that because of availability of 0% financing, consumers have increased their average ticket size of purchases as well.

Regular wage earners have also started to get interested in consumer durable purchases on 0% interest schemes

We also observed continued benefits to organised retailers such as V-Mart in rural and semi-urban regions which has been benefiting from shift of customers post the demonetization period and also note that they can manage changes from GST at much better than the unorganised retail shops.

Exhibit 122. Activity levels remain high in stores such as V-Mart

Source: JM Financial

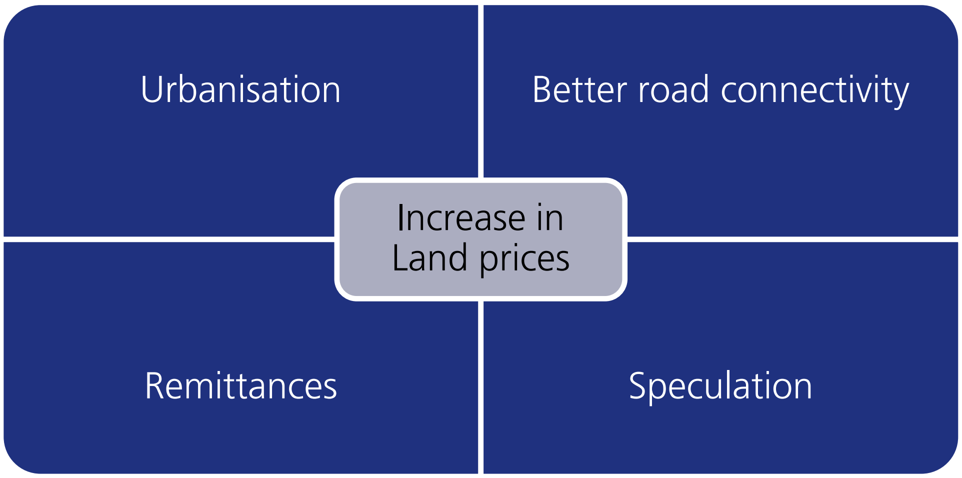
Exhibit 123. The post-Demonetisation period brought a new set of customers in stores such as V-Mart

Source: JM Financial

Wealth effect remains weak impacting large ticket consumption

As highlighted in our earlier reports, rural land prices that had sky-rocketed by at least 5–10x over the past decade on improved road connectivity, urbanisation, remittances and speculation – have continued to show a downward trend. It may be noted that barring regions adjacent to urban areas or where large infrastructure projects are coming up, we do not see much evidence of land transactions.

Exhibit 124. Key factors for land price increase over the past decade

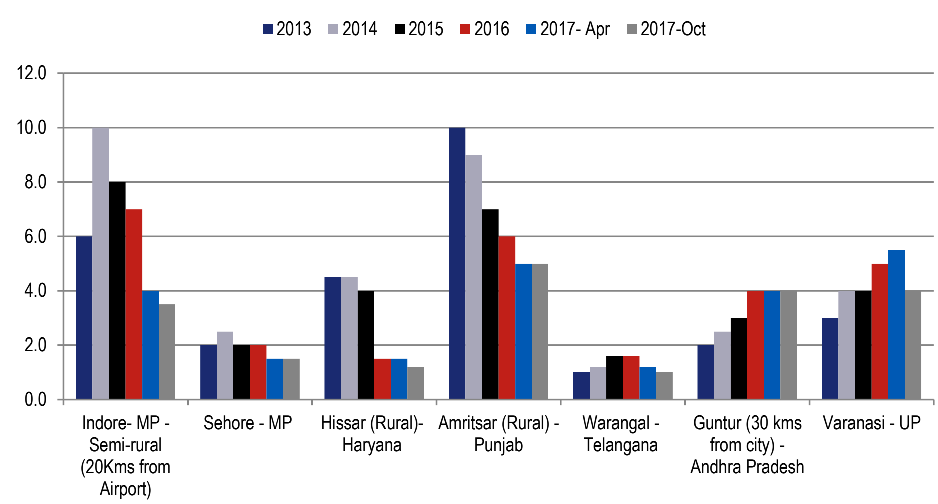


Source: JM Financial

Land prices have come down even at places such as Eastern UP which had been resilient earlier

As the sentiment was weak on land prices in the past 1-2 years, demonetization further impacted transaction volumes adversely across regions. **In the current visit, we saw further decline in land prices across regions**. Measures to reduce flow of black money leading to restrictions of cash based transaction, disruptions through GST implementation and lack of speculation continues to drive down the real estate prices across regions.

Exhibit 125. Sample land prices (INR mn per acre) as tracked during JM Financial survey



Source: JM Financial

The exhibit below depicts the trend in rural land prices across our various visits. **There were pockets such as Andhra Pradesh/Eastern UP & Bihar/Telangana which had shown resilience in land prices, but at present, land prices had corrected everywhere on account of restrictions on cash transactions and thereby reduced speculation.**

Exhibit 126. Real estate trends over the past few years – JM Proprietary survey

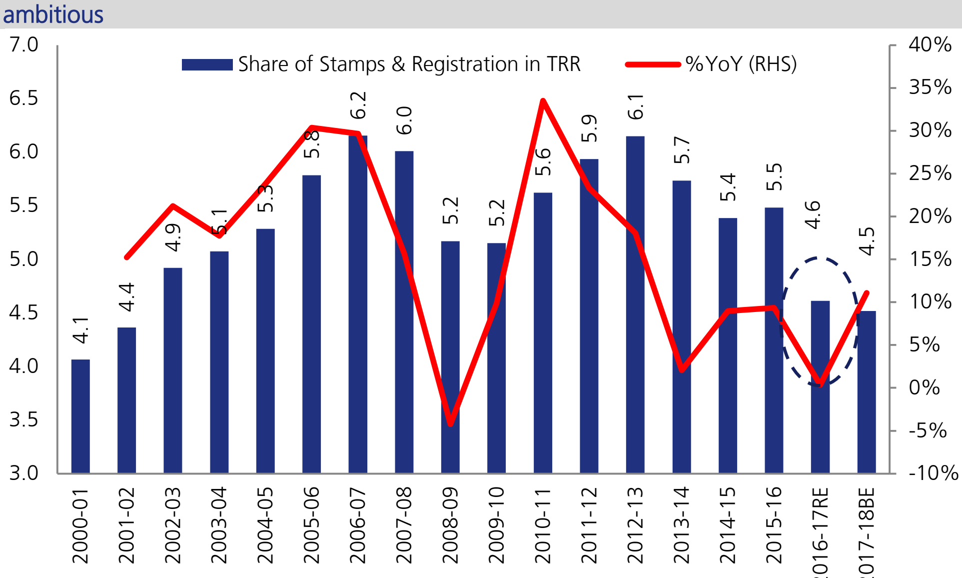
States	Average Farm-holding size (Acre)	Rural Safari - I	Rural Safari - II	Rural Safari - III	Rural Safari - IV	Rural Safari - V	Rural Safari - VI
		Feb-Mar 2015	Sep-Oct 2015	Mar-Apr 2016	Sep-Oct 2016	Mar-Apr 2017	Sep-17
Punjab	9.3	Decline	Decline	Decline	Stable	Decline	Decline
Haryana	5.6	Decline	Decline	Decline	Stable	Decline	Decline
Madhya Pradesh	4.4	Decline	Decline	Decline	Decline	Decline	Decline
Karnataka	3.8	Stable	Stable	Decline	Decline	Decline	Decline
Maharashtra	3.6	Stable	Decline	Decline	Decline	Decline	Decline
Andhra Pradesh	2.7	Increase	Increase	Increase	Increase	Stable	Decline
Telangana	2.7	Stable	Stable	Decline	Stable	Stable	Decline
Tamil Nadu	2.0	Stable	Stable	Stable	Decline	Decline	Decline
Uttar Pradesh	1.9	Stable	Increase	Increase	Increase	Increase	Decline
Bihar	1.0	Stable	Stable	Increase	Increase	Increase	Decline
Overall	**2.4**	Stable	Decline	Decline	Decline	Decline	Decline

Source: JM Financial, Legend: Increase Stable Decline

State governments have budgeted 11% YoY growth in property related tax revenue, can be difficult to meet, given weak prices and lower transaction volumes

Stamps & registration duty amounts to c.4-6% of a States total revenue receipts and during FY17RE, 17 major states (93% of India's GDP) under our **study reported only 0.3% YoY growth in budgeted revenue from Stamps & registration duty, and missed their budgeted estimates of 15% YoY growth.** During FY17, property (including land) prices and transaction volumes had declined sharply after demonetisation (Nov'16) leading to shortfall in the duty collected by states.

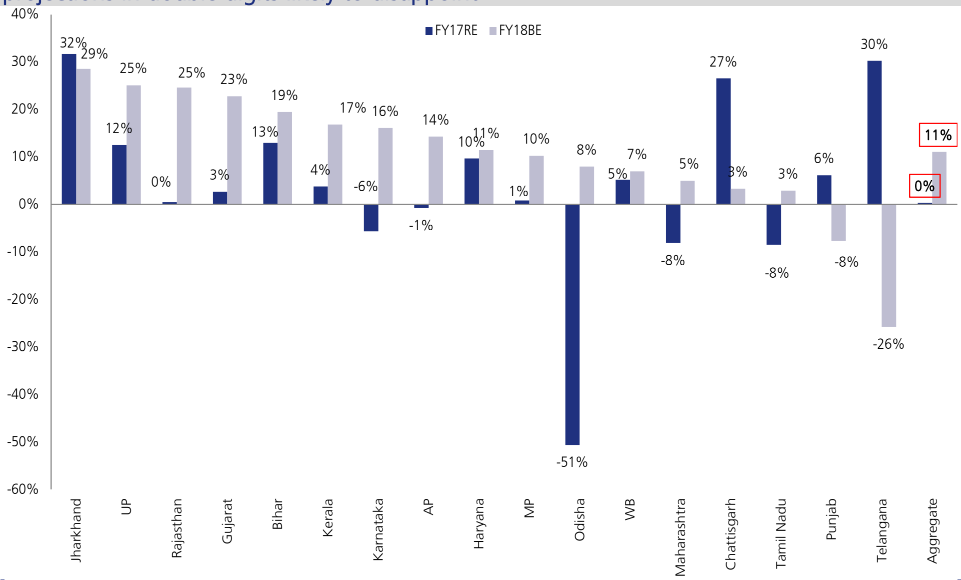
Exhibit 127. Share of stamps & registration duty in Total revenue receipts of states varies between 4-6%, FY17 saw -0.3% growth, budgeted growth of 11% YoY for FY18BE is ambitious



Source: Budgets 2017-18, JM Financial, Data for 17 states

For FY18, the states have budgeted growth of 11% YoY for property tax, which we believe is difficult to achieve given the weak sentiment on land prices. The miss on stamps & registration duty revenue can add to c.10bps in combined state fiscal deficit as analysed in our note (State budget – Property Tax)

Exhibit 128. What are individual states projection of growth for FY18 – States with growth projections in double digits likely to disappoint



Source: State budgets 2017-18

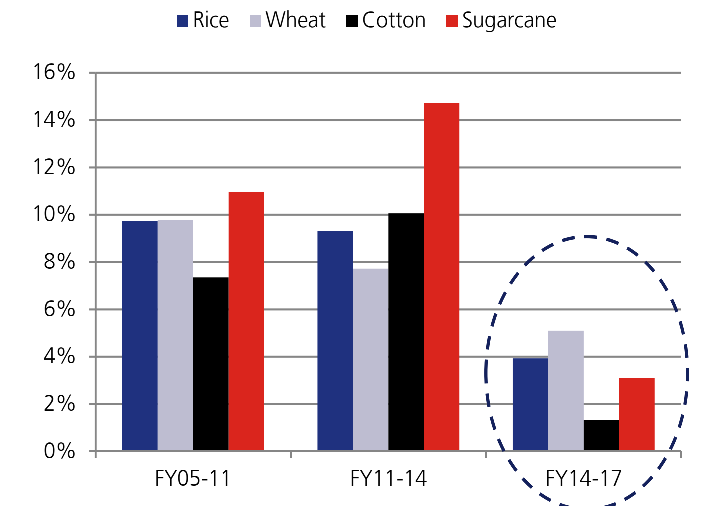
States have budgeted an ambitious 11% YoY growth in property tax revenues, can be difficult to meet if real estate continues to remain weak

Rural income: Expect modest growth in FY18

We revisit our model for farmer income and leverage after detailed assessment and analysis from the rural visit undertaken during the past few weeks Just to recollect, the double digit growth in profitability/income from farming was seen during last decade and during that period, MSP growth has been in double digits, and global commodity prices were also on a rising curve, thereby benefiting farm income.

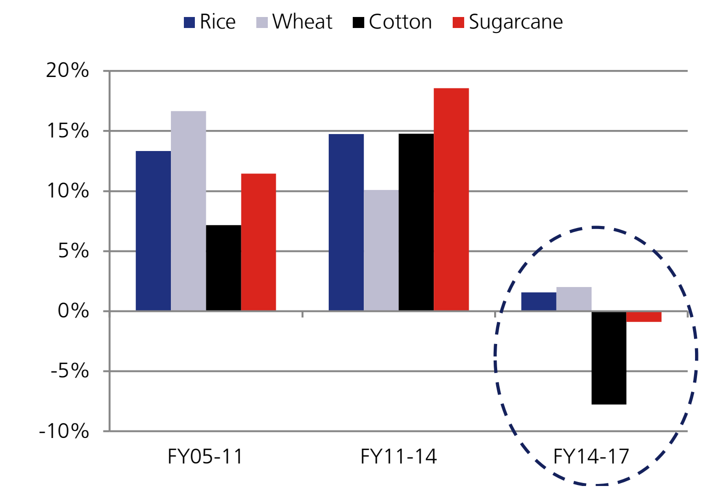
However, the strong MSP growth during last decade has also resulted in high inflation rates as the weightage of Food in inflation basket remains high (c.47%). We have seen MSP growth to be modest over past few years and the effort of Government is to improve productivity, raise efficiency, improve marketing of produce so that the share of farmer increases. However, these steps (discussed in detail earlier) would show results over medium term, and in near term, thereby we don't see sharp acceleration in income growth from farming.

Exhibit 129. MSP growth CAGR (%) – Slowed in past few years



Source: CACP, JM Financial

Exhibit 130. Correspondingly, profitability (Net income/acre) also slowed down during the past few years



Source: CACP, JM Financial

During FY17, we saw a clear divergence in the farm income growth for a small farmer/large farmer, as post demonetization, the small farmer was much more adversely impacted due to low financial access, small scale and hence had obtained lower prices as compared to a large farmer. **For FY18, we lower down our initial estimate of farm income as multiple disruptions (GST, sand mining ban in certain states) have driven the income growth to 2HFY18.** We did see healthy rural housing start (58% of target by mid-Oct'17), while due to issues in sand mining in key states of UP, Bihar, Tamil Nadu etc., the completion progress has been slower.

We expect a healthy Rabi crop output given adequate water levels across country (barring Central India) and limited impact on Kharif crop yield due to a sub-optimal time distribution of rain. Among key crops – prices of vegetables have been holding up, while pulses/oilseeds continue to be sluggish, but on a YoY basis, they are largely flat. **Net-net, we expect modest growth in farm income and supplemented with non-farm income to drive a high-single-digit growth in income in FY18.**

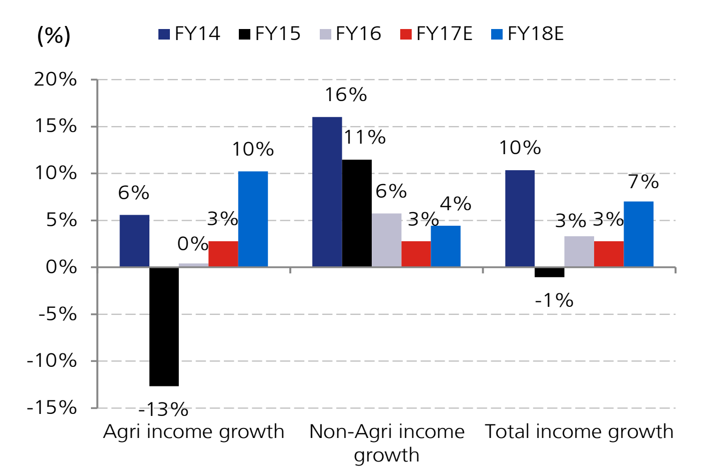
In terms of leverage, the credit metrics remain largely in-line and in states where farm loan waiver has been implemented, incremental cash flow would be received by **(a)** farmers who had earlier defaulted on loans or **(b)** in cases such as Maharashtra, the eligible farmers would get incentive benefit for payment on time. For a farmer who has been repaying his crop loan in time, farm loan waiver essentially only aids him in easing on the interest payments, which is already on subsidised rates (4%).

Exhibit 131. A sample income profile for a small farmer (2.7 acres)

		FY13	FY14	FY15	FY16	FY17E	FY18E
Average Land Holding (acres)	Acres	2.7	2.7	2.7	2.7	2.7	2.7
Cost of Land (INR)	INR	270,758	297,834	282,942	254,648	229,183	217,724
Land Value		731,047	804,152	763,944	687,550	618,795	587,855
Kharif Crop							
Adjustment of net crop sown area	(x)	0.70	0.70	0.70	0.65	0.65	0.65
Adjustment for liquidity	(x)	1.0	1.0	1.0	1.0	0.92	1.0
Productivity	(qtl/acre)	14.9	14.6	14.4	14.5	15.4	15.0
Price	MSP – INR	1,280	1,345	1,400	1,450	1,510	1,590
Revenue from crop	INR	13,320	13,762	14,155	13,663	13,892	15,503
Byproduct	INR	1,127	1,235	1,432	1,297	1,237	1,345
Cost	INR	6,763	7,026	8,109	8,112	8,691	9,413
Rabi Crop							
Incidence of crop failure / net crop sown area adjustment	(x)	0.70	0.70	0.70	0.66	0.65	0.65
Adjustment for liquidity	(x)	1.0	1.0	1.0	1.0	1.0	1.0
Productivity	(qtl/acre)	12.6	12.7	11.1	12.3	12.9	13.2
Price	MSP – INR	1,350	1,400	1,450	1,525	1,625	1,723
Revenue	INR	11,918	12,474	11,295	12,358	13,581	14,684
Byproduct	INR	2,578	3,025	2,763	2,605	2,550	2,550
Cost	INR	5,630	5,994	6,274	6,486	6,818	7,306
Annual agri Income	INR	44,687	47,186	41,209	41,377	42,530	46,879
Share of Non-agri Income	INR	46%	48%	54%	55%	55%	54%
Wages		20,736	24,883	28,616	30,762	31,685	33,269
Farming of animals		9,816	10,994	11,654	11,887	12,124	12,609
Others		7,116	7,828	8,454	8,876	9,143	9,417
Non-agri Income	INR	37,668	43,705	48,723	51,525	52,952	55,295
Total Income		82,355	90,891	89,932	92,902	95,482	102,175
Consumption - INR (yearly)	INR	77,084	84,793	89,032	93,484	97,223	101,112
Surplus/Deficit (INR)	INR	5,271	6,098	899	(582)	(1,741)	1,063
Average Debt	INR	54,800	60,280	63,294	66,459	70,363	74,156
Additional debt (repayment)	INR		0	0	582	261	-319
Total Debt	INR	54,800	60,280	63,294	67,040	70,625	73,837
Debt/Asset	%	7.5%	7.5%	8.3%	9.8%	11.4%	12.6%
Debt/Income	%	66.5%	66.3%	70.4%	72.2%	74.0%	72.3%
Interest	x	4,932	5,425	5,696	6,034	6,356	6,645
Interest / income	%	6.0%	6.0%	6.3%	6.5%	6.7%	6.5%
EMI	x	14,089	15,498	16,272	17,236	18,157	18,983
EMI/Income	%	17.1%	17.1%	18.1%	18.6%	19.0%	18.6%

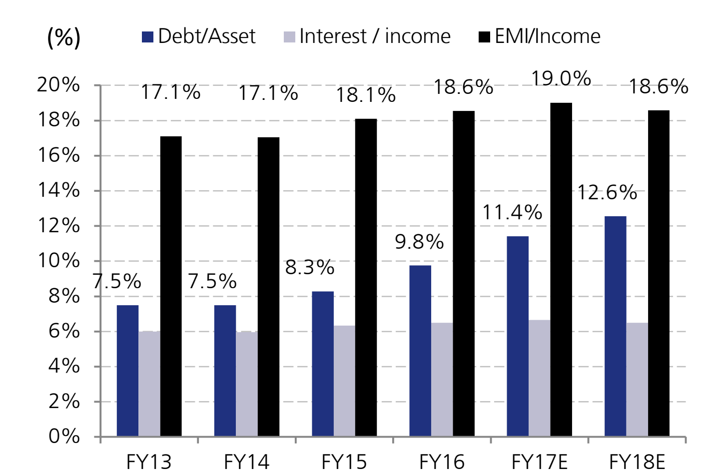
Source: JM Financial, NSSO,

Exhibit 132. Income forecast for a small farmer



Source: JM Financial

Exhibit 133. Leverage movement for a small farmer



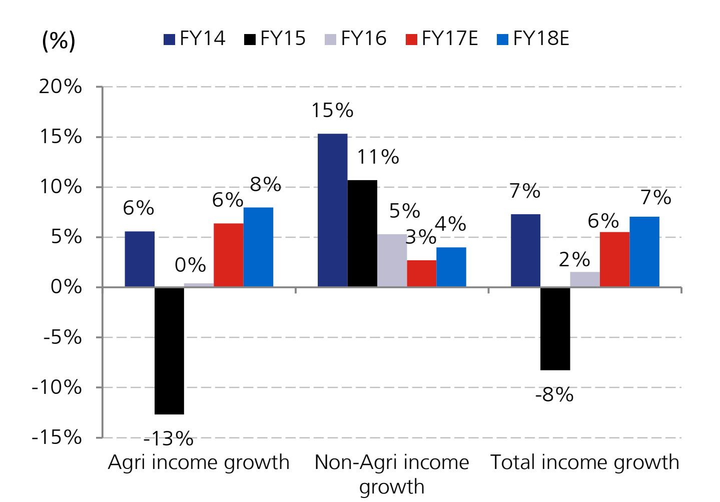
Source: JM Financial

Exhibit 134. Sample income profile for a large farmer (15 acres)

		FY13	FY14	FY15	FY16	FY17E	FY18E
Average Land Holding (acres)	Acres	15.0	15.0	15.0	15.0	15.0	15.0
Cost of Land (INR)	INR	270,758	297,834	282,942	254,648	229,183	217,724
Land Value		4,061,372	4,467,509	4,244,134	3,819,721	3,437,749	3,265,861
Kharif Crop							
Incidence of crop failure / net crop sown area adjustment	(x)	0.70	0.70	0.70	0.65	0.65	0.65
Adjustment for liquidity	(x)	1.0	1.0	1.0	1.0	0.95	1.0
Productivity	(qtl/acre)	14.9	14.6	14.4	14.5	15.4	15.2
Price	MSP – INR	1,280	1,345	1,400	1,450	1,510	1,590
Revenue	INR	13,320	13,762	14,155	13,663	14,345	15,740
Byproduct	INR	1,127	1,235	1,432	1,297	1,278	1,345
Cost	INR	6,763	7,026	8,109	8,112	8,691	9,413
Rabi Crop							
Incidence of crop failure / net crop sown area adjustment	(x)	0.70	0.70	0.70	0.66	0.65	0.65
Adjustment for liquidity	(x)	1.0	1.0	1.0	1.0	1.0	1.0
Productivity	(qtl/acre)	12.6	12.7	11.1	12.3	12.9	13.2
Price	MSP – INR	1,350	1,400	1,450	1,525	1,625	1,723
Revenue	INR	11,918	12,474	11,295	12,358	13,666	14,684
Byproduct	INR	2,578	3,025	2,763	2,605	2,566	2,550
Cost	INR	5,630	5,994	6,274	6,486	6,860	7,306
Annual agri Income	INR	248,261	262,146	228,936	229,874	244,543	264,002
Share of Non-agri Income	INR	18%	19%	23%	24%	23%	22%
Wages		24,372	29,246	33,633	36,156	37,241	38,730
Farming of animals		18,012	20,173	21,384	21,812	22,248	23,138
Others		10,332	11,365	12,274	12,888	13,275	13,806
Non-agri Income	INR	52,716	60,785	67,292	70,856	72,763	75,674
Total Income		300,977	322,931	296,228	300,729	317,306	339,676
Consumption - INR (yearly)	INR	225,733	252,820	271,782	285,371	299,640	323,611
Surplus/Deficit (INR)	INR	75,244	70,111	24,446	15,358	17,666	16,065
Average Debt	INR	184,000	202,400	212,520	223,146	234,303	247,324
Additional debt (INR)	INR		0	0	0	-5,300	-4,819
Total Debt	INR	184,000	202,400	212,520	223,146	229,003	242,504
Debt/Asset	%	4.5%	4.5%	5.0%	5.8%	6.7%	7.4%
Debt/Income	%	61.1%	62.7%	71.7%	74.2%	72.2%	71.4%
Interest	x	12,880	14,168	14,876	15,620	16,030	16,975
Interest / income	%	4.3%	4.4%	5.0%	5.2%	5.1%	5.0%
EMI	x	44,876	49,363	51,832	54,423	57,144	60,320
EMI/Income	%	14.9%	15.3%	17.5%	18.1%	18.0%	17.8%

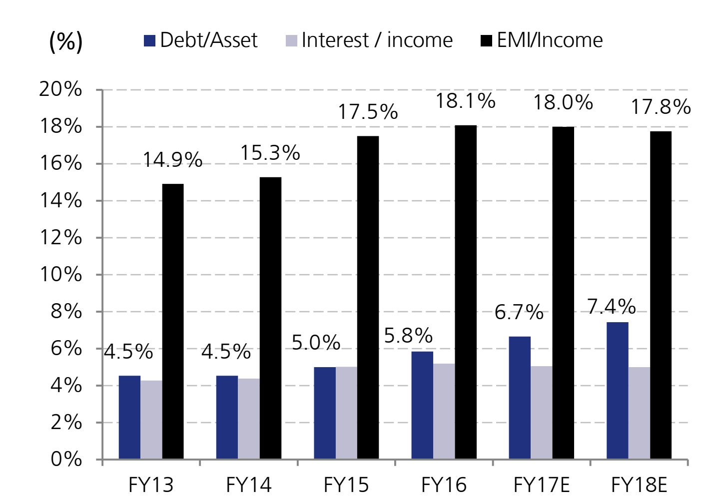
Source: JM Financial

Exhibit 135. Income growth forecast for a large farmer



Source: JM Financial

Exhibit 136. Credit metrics movement for a large farmer

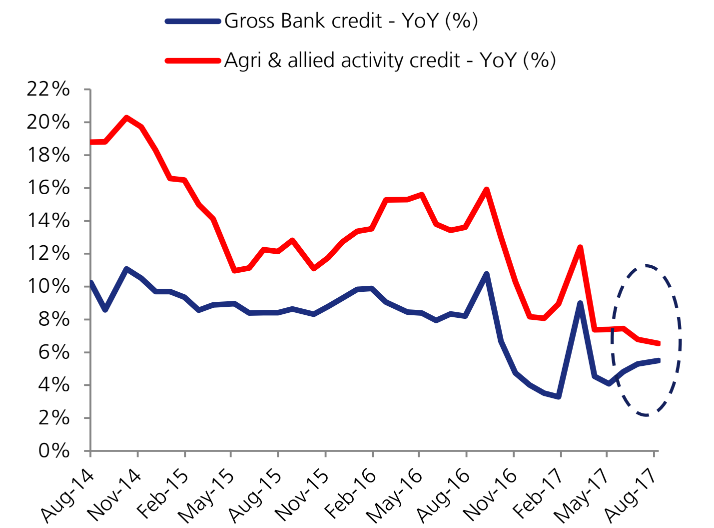


Source: JM Financial

How has been credit growth in agriculture over past few months?

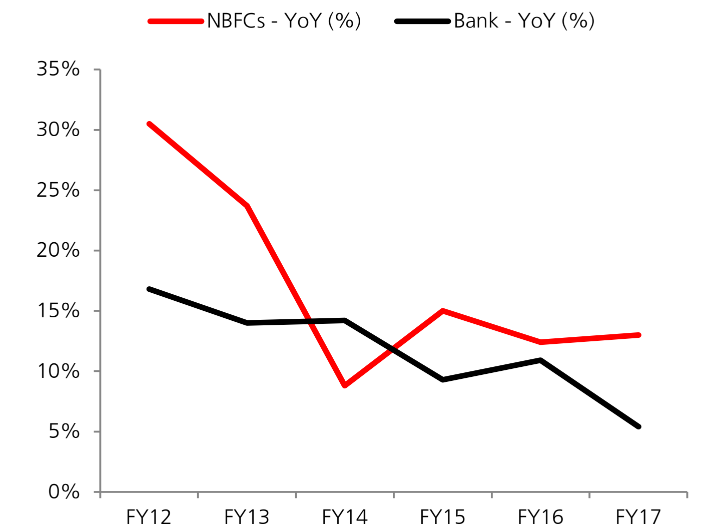
Overall credit growth has been weak during 2017 and growth in agri-loans (growing at a higher rate than the total credit) has also slackened its pace in recent months to single-digit growth rates.

Exhibit 137. Agri-credit growth has remained weak last few months – Disbursements impacted on account of farm loan waivers



Source: RBI

Exhibit 138. Credit growth overall has been driven by NBFCs over the past few years



Source: RBI, Note – NBFC non deposit taking and systematically important

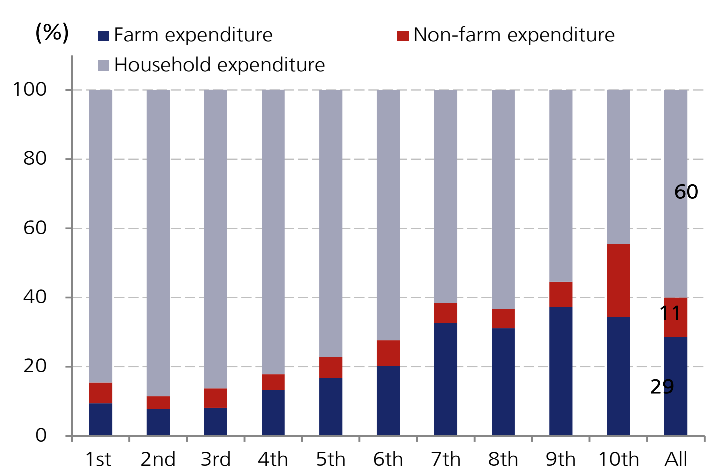
Our interactions with farmers across regions indicated that the key institutional debt is the short-term crop loans (KCC, 46mn as of Mar'17) which is in the nature of overdraft. One key development during 2017 has been the announcement of farm loan waivers across five state (exhibit below) and our channel checks indicated disbursements had reduced in states which were implementing farm loan waivers (UP and Maharashtra in particular). **We believe as the implementation of farm loan waiver starts, credit growth will revive back for agriculture in the coming months.**

In anticipation of farm loan waivers, farmers in few states had delayed repayment of agri-loans in last few months

Debt at agri-households geared towards consumption expenditure

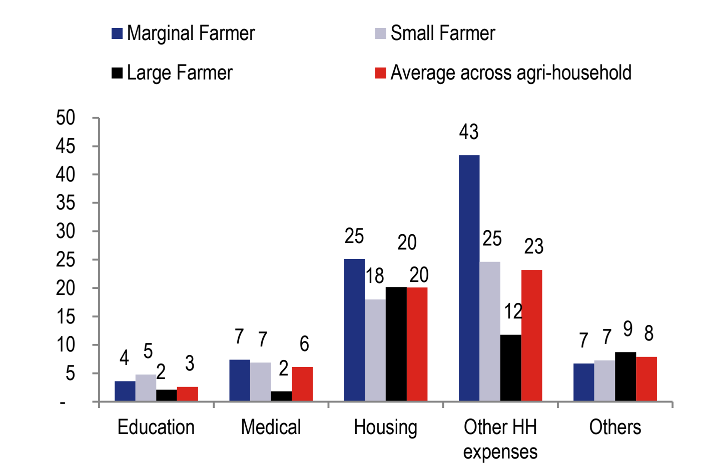
Past surveys and our rural interactions clear indicate that fulfilling of house-hold expenses are the prime driver for indebtedness in rural India, and this is much more enhanced in case of smaller farmers (indicated by the lower decile).

Exhibit 139. Break-up of agri-household debt by usage (arranged as per income deciles) - Debt is primarily driven by Household expenditures, while farm-related expenses are only 30% of debt



Source: NSSO

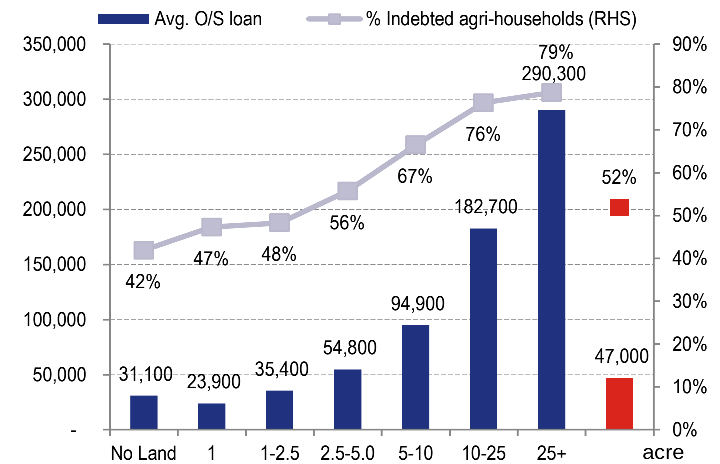
Exhibit 140. Break-up of house-hold consumption funded by debt across farmers – A small and marginal farmer has – Key reasons for debt by farmers (%)



Source: NSSO, Note – Income decile

Overall, 60% of debt is for household expenses, while 30% for agri-related expenses and 10% on non-agri expenses. However, the share of consumption expenditure is much higher 80% or above for marginal/small farmers. Breaking the household expenditure by category of farmers (exhibit above), indicates the key consumption categories – **education, medical, housing and other expenses (such as marriages etc.) drive the increase in household debt. So, the additional inflow from farm loan waiver is likely to be spent similarly.**

Exhibit 141. Average loan out-standing and % of indebted households: Large farmers have higher debt also because of better access to credit



Source: NSSO

Exhibit 142. Heightened anticipation among farmers to know their eligibility under farm loan waiver (Aurangabad, Maharashtra)

Source: JM Financial

Farm loan waivers – Contributor to rural consumption?

During Apr'17, the UP government announced a farm loan waiver for the marginal and small farmers (less than 5 acres) and up to INR0.1mn loan and thereafter four other states also have announced farm loan waivers – Maharashtra, Punjab, Karnataka and Rajasthan and total outgo is estimated to be INR1.2tn.

Five states have announced farm loan waiver, total cost could be INR1.2tn

Exhibit 143. States have announced farm loan waiver of INR1.2Tn, UP and Maharashtra have started disbursements

State	Announced	Quantum of Waiver (INR bn)	Type of loans	Limit per beneficiary (INR mn)	Status	Other Details
Uttar Pradesh	Apr-17	360	All Crop loans	0.1	Disbursement started in phases from September onwards	For the small and marginal farmers for loans taken before Mar 31, 2016. There are a few additional beneficiaries, namely 0.7mn farmers that had seen their farm loans turn to NPA and were being denied banking facilities; now their NPA's would be written off
Maharashtra	Jun-17	c.370 (initial announced), c.240bn (likely)	All Crop loans	0.15	Disbursement started one day before Diwali in mid of October	Loans of Small and Marginal farmers (1 per family) to be completely written off. Apart from this, regular loan payers will be given a bonus of INR 25K or 25% of loan paid, whichever is higher, under a one-time special scheme. From an initial period of Jun'12 the eligibility was extended to loans taken up to Apr'08. The state also added farm lands of serving army jawaans also under the loan waiver scheme and also the earlier restructured loans
Punjab	Jun-17	250	All Crop loans	0.2	TBD	For small and marginal farmers; Expert committee appointed for details of the scheme. It has made an initial budget provision of INR 15bn for FY18.
Karnataka	Jun-17	82	Crop loans Cooperative Banks only	0.05	TBD	Loans up to INR50K will be waived in full but loans above INR50K will be eligible only if the farmer repays the remaining debt
Rajasthan	Sep-17	200	All farm loans	0.05	TBD	Loans up to INR50K will be waived in full, set up a committee to look into the implementation details

Source: Media articles, PIB

Among the above-mentioned states, Uttar Pradesh started the waiver process from mid of September and Maharashtra has also initiated from mid-Oct'17. **As per the information released, in the first phase, 1.2mn families will benefit in UP with INR74bn farm loans waived off, while 0.9mn farmer families will benefit in Maharashtra with INR40bn benefit.**

Exhibit 144.Disbursement of initial benefits across – Maharashtra and Uttar Pradesh

	Farmer families (mn)	Amount allocated by state Government - INR bn	Waiver per family – INR
UP	1.2	74.	61,774
Maharashtra		40	
Farm waiver	0.5	32	69,264
Incentive	0.4	8	21,164

Source: JM Financial, Media articles

Revival of debt to earlier NPA declared accounts in farming, incentives to regular paying farmers (Maharashtra) provides additional cash flow

As mentioned earlier, most farm loans are taken under the Kisan Credit Card (46mn, Mar'17) where the farmer obtains an overdraft limit based on his/her land-holding and the crop he grows. Based on the limit assigned, he withdraws debt amount and if he repays within the year, has to pay only the subsidised 4% interest rate and can again withdraw for next season. Only in cases when the farmer is not able to pay the interest in one year, the interest rate increases on the loans.

The criteria for loan waiver varies across states and any farmer who has been repaying loans on time, his benefit from the farm loan waiver would be largely limited to only the interest component (4% on out-standing loans), **while the key beneficiary are the farmers who have failed to pay their earlier loans and now are under stress or NPA status. The credit to this set of farmer is stopped by the banks and what the farm loan waiver does is that it restarts credit for this set of farmers and thereby aids consumption and investment.**

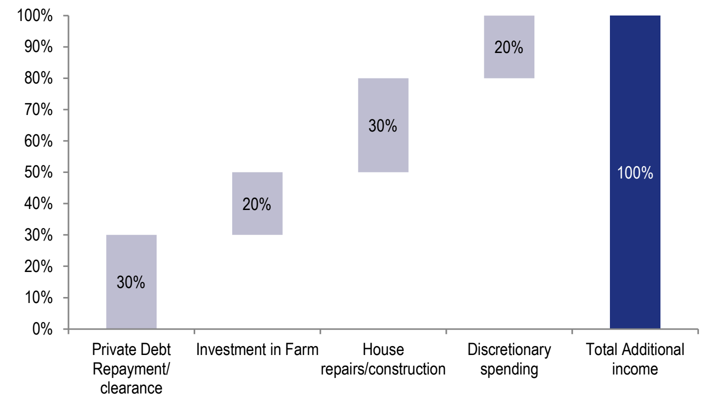
In the two states which have started disbursal of the farm loan waiver, new beneficiaries are

- **(a)** UP Government will be waiving off loans for 0.7mn farmers whose loans are in NPA status and would spend around INR73bn. **This would be clearly a new inflow and would add to the consumption/investment.**
- **(b)** Maharashtra Government **is providing incentive to the farmers who have repaid on time with a one-time incentive of INR25K or 25% of the loan paid, whichever is higher.** This would act as a boost to the farmer income in the state by the given amount.

However, it must be stated that generalised debt waivers discourage prompt repayment in future in the expectation that there may be more such waivers in the pipeline. **In this case, the provision of incentive for farmers which have repaid promptly and on time is a welcome step.**

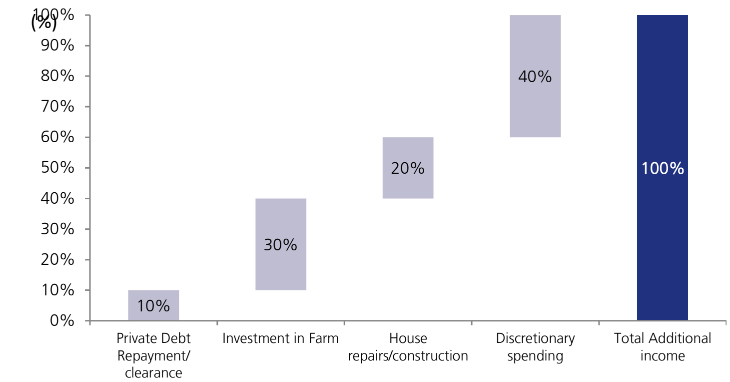
Our survey across the regions undergoing farm loan waiver indicated the likely usage of additional cash flow from the benefits of farm loan waiver. Given the consumption and investment requirements, larger farmer would be spending a higher share on discretionary consumption, while smaller farmer's discretionary consumption remains limited.

Exhibit 145. Break-up of additional gain of INR50K by a small farmer from farm loan waiver – 20% of the allocation for discretionary spending



Source: JM Financial

Exhibit 146. Break up of additional gain of INR100K by a large farmer from loan waiver – 40% of allocation could go for discretionary spending



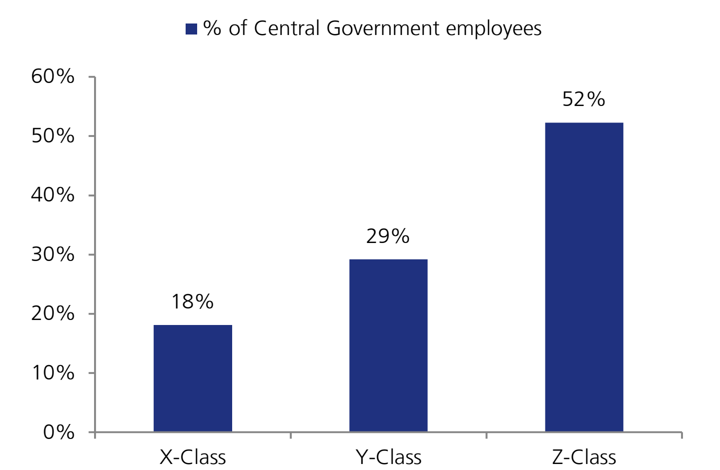
Source: JM Financial

Additional driver for rural spending – Benefits from the 7th Pay Commission

In addition to the cultivation related income, the economic activity in a rural region **is also impacted by the spending pattern of Government employees.** As per the census on central government employees, around 53% of the employees stay in z-class cities (Tier-III and below).

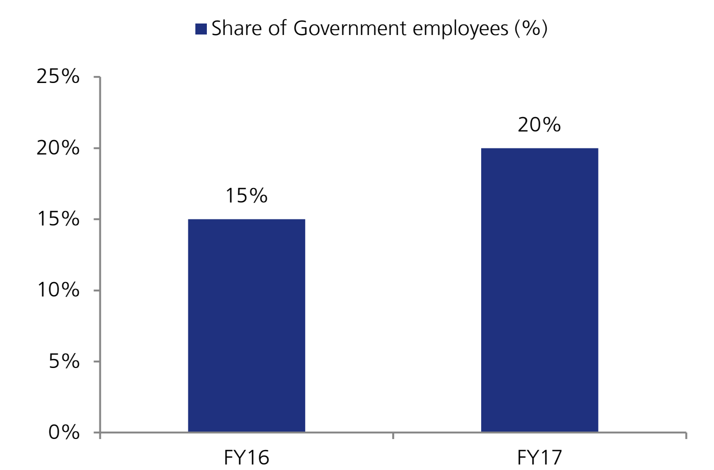
Hence, an increase in Government salaries would enable a rise in income levels and spur consumption in tier-III towns and also adjacent rural areas. Just to note, during FY17 (initial year of benefit from 7th pay commission), the share of vehicle purchase by Government employees was 20% for Maruti, against 15% earlier.

Exhibit 147. Distribution of Central Government employees across regions – 53% around Tier-III cities



Source: Central Govt Census, 2014, X-Class: Tier-1 (8 cities), Y-Class: Tier-II, Z-Class: Tier-III cities

Exhibit 148. Share of purchases by Government employees up by 5% points for Maruti (domestic)



Source: Company

After the Central Government implemented pay commission recommendations, various state Government have been revising salaries of their staff during FY18. The budgeted estimate of growth in salaries for FY18BE indicates the states where pay commission benefits would be higher during FY18.

Exhibit 149. State-wise implementation of the 7th pay commission & budgeted growth in wages and salaries

States	Whether implemented	FY17RE	FY18BE
Rajasthan	Yes	14%	39%
Odisha	Yes	17%	27%
MP	Yes	14%	18%
Haryana	Yes	22%	17%
UP	Yes	12%	15%
Maharashtra	Yes	11%	15%
Karnataka	Yes	9%	14%
Chhattisgarh	Yes	25%	13%
Jharkhand	Yes	23%	12%
Gujarat	Yes	9%	9%
Tamil Nadu	Yes	10%	2%
Bihar	Yes	25%	1%
Kerala*	No	17%	16%
Andhra Pradesh*	No	28%	11%
Telangana*	No	-	-
West Bengal	No	14%	-
Punjab	No	13%	5%

Source: JM Financial, Note: Kerala, Andhra Pradesh and Telangana follow their own state pay commission

During Oct'17, the department of education announced salary revision for 0.75mn college faculty members, (estimate 22 to 26% YoY growth). The announcement will benefit the faculty at 43 central universities, 329 state universities, and 12,912 government and private aided colleges affiliated to state universities (a number of them would be in tier-III towns and below), thereby aiding consumption growth..

Consumption to remain steady, large ticket purchases to remain contained

Our interactions across regions indicate large discretionary purchases from the non-Government/non-corporate segment would still be contained until the uncertainty around cash usage, GST implementation eases over the next few months.

Payout from 7th pay commission across states would aid in consumption sentiment

The states where farm loan waivers are implemented will likely benefit from additional cash flow to farmers as well as the states with higher growth in salaries/wages of Government employees. **The agri-based income growth remains modest and thereby consumption is likely to be steady and acceleration in consumption spending can be expected after good Rabi crop realisations.**

Sector Comments

Agrochemicals

During our safari, we observed wide disparity in brand awareness and decision making criteria with regard to pesticide purchases among farmers in the various states. For example, while brand awareness was as high as 80% in AP and Telangana, the awareness was as low as 10% in UP and Bihar and c.50-60% in Maharashtra and Gujarat. The use of spurious pesticides (based on dealers' recommendations) is still high in many states and this has impacted the quality of agricultural produce to a large extent. While there are good amount of farmer engagement initiatives taken up by many of the companies in the organised space (such as Coromandel, Rallis, Dhanuka, etc), it is yet to make an impact in many remote villages, where farmers entirely rely on dealers recommendations for making their purchase. We believe that there is huge potential lying ahead in the sector driven by rising number of farmers realising the need of using quality agri-inputs, and with rising farm incomes and increased regional penetration by organised players, the Indian agrochemical sector is capable of growing at 8-10% annually.

- **Monsoon in southern states and GST re-stocking to drive pesticide sales in 2Q; higher cotton acreages bodes well:** While 1QFY18 was impacted by the late onset of the monsoon, especially in southern states and destocking on the back of GST, we believe the pick-up of the monsoon in mid-2Q could benefit agrochemicals players to some extent. Further the quarter is also expected to witness some re-stocking by dealers following GST, which could act as a tailwind in making up for some of the losses caused in 1Q18. In addition, higher cotton acreages (+18% YoY for Kharif) bodes well for agrochemical players, and thereby is expected to provide further push for 2QFY18 earnings
- **Higher pest infestation driven by dry spells in Western and Northern states**: While monsoon 2017 kicked off on time in Western and Northern regions, it was followed by 1-1.5 months of dry spells during July-August that impacted sowing and yields in most parts of India. During our survey, we came across various instances of high pest infestation (especially in Maharashtra and Haryana) driven by these dry spells. We believe this has significantly benefitted companies like PI Industries, UPL, Nagarjuna Agrochemicals and Bayer Cropscience and expect these companies to report c.8-10% growth in pesticides for the quarter.
- **Expect Kharif agrochemical sales (1HFY18) to end flat to marginally positive YoY:** Overall, we expect 1HFY18 to be flat to marginally positive, with 2Q making up for the negative revenue growth of 1Q. While the outlook for rabi currently appears mixed with reservoir levels still lower than that of last year, healthy monsoon towards the end of the season has helped boost farmer sentiments. For the full-year FY18, we expect mid- to high-single-digit YoY revenue growth for key domestic agrochemical companies.

Expect YoY flat agrochemical sales in 1HFY18

Exhibit 150.Summary of agro-chemical market in key states

State	Market size	Organised share
AP and Telangana	INR 25-30bn	60%
Maharashtra	INR 15-16bn	50%
Punjab	INR 14-15bn	60%
Gujarat	INR 9-10bn	on the rise
UP	Low	low

Source: JM Financial

- **Key companies:** To mitigate monsoon-related uncertainty specific to India-focussed companies, we prefer companies that are based in India but have a global presence. **UPL** remains our top pick in the segment on the back of the company's integrated business model and well-diversified presence across the globe. Another company to focus on is **PI Industries**, with an order book of USD 1bn in the contract synthesis and manufacturing (CSM) business as well as a strong brand presence in India. We note that PI has corrected recently and therefore offers a good entry point.

Exhibit 151. Neem coated urea in AP

Source: JM Financial

Exhibit 152. Neem coated urea in Uttar Pradesh

Source: JM Financial

Exhibit 153. Agri input dealer at Bhatinda, Punjab

Source: JM Financial

Exhibit 154. Agri-input dealer in AP

Source: JM Financial

DBT in Fertilisers – Need to implement in a calibrated manner

- **Progress witnessed in PoS installation but benefits of the scheme unlikely to be witnessed soon:**

  - In an earlier report (Rural Safari V), we had highlighted that for the full implementation of DBT in fertilisers to take place and the scheme being able to meet its intended cause, (with (i) companies benefitting from timely subsidy disbursements and (ii) government benefitting from lower subsidy outgo) it is likely to take another 2-3 years.

Exhibit 155. Fertiliser companies and subsidy receivables

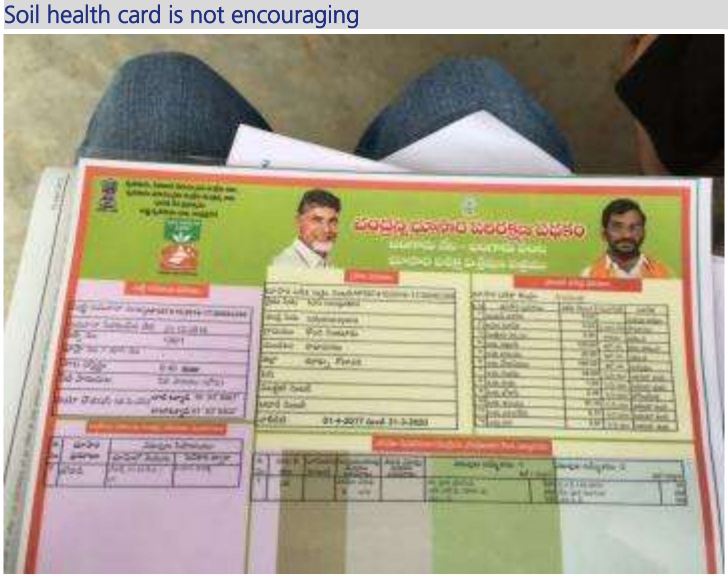
Company	Market cap (INR bn)	Subsidy receivables (INR bn)	Total assets (INR bn)	Subsidy receivable as a % of total assets
National Fertilizers Ltd	30	40	102	40%
Chambal Fertilizers	61	26	80	33%
Zuari Agrochem	25	15	45	33%
Coromandel International	148	26	86	30%
Gujarat State Fertilizers and Chemicals	57	20	90	22%
Gujarat Narmada Valley Fertilizers	81	12	79	15%
Rashtriya Chemicals and Fertilizers Ltd	23	12	77	15%

Source: Bloomberg, Company, Receivables as of Mar 31, 2017

- Currently, as per recent statements given out by the fertilizer ministry, DBT has been introduced in October, in 7 states including Delhi, and the government plans to launch the programme in another 12 states including Punjab, MP and AP by next month. The government targets to cover the entire country by January 2018.
- **In our rural safari, while we observed that POS machines installation has undergone a substantial progress, we believe there are still many operational challenges and a lot of work yet to be done in terms of digitisation of land holding records and increasing penetration of soil health cards, which are pre-requisites of the successful implementation of the scheme.**

Accordingly, we expect that the scheme needs to be implemented **in a calibrated manner** as the infrastructure across the country is yet to be completely ready for the adoption.

Exhibit 156. Soil Health card in AP – However usage and feedback on Soil health card is not encouraging



Source: JM Financial

Exhibit 157. POS machine usage at a retailer in AP

Source: JM Financial

Exhibit 158. Pesticide spray in our fields – Inadequate protection taken which can be dangerous to health

Source: JM Financial

Exhibit 159. A sample recommended protective dress for pesticide spray

Source: JM Financial

Automobiles

Our latest trip across rural hinterlands over the past few weeks VIth 'Rural Safari' series, 2017) brought to light healthy farm output in most parts of country barring a few southern states. This, with stable realisations, we believe, is likely to convert into better net farm income. As expected, tractor sales witnessed healthy double digit growth. Both two wheelers (2W) and passenger vehicles (PV) saw healthy growth led by improving rural sentiments and festive cheer. Both Hero Motocorp and Bajaj Auto witnessed robust retail demand during the festive season. In PV, Maruti Suzuki saw strong double digit growth above the company average from rural areas. Tractors continue to grow at a robust pace largely led by agricultural demand even while a few key states such as UP, MP have bans on sand mining.

Expect double digit growth in two wheelers during FY18

Our trip also reassures our belief in the long-term demand potential and growth drivers of automobiles in the rural/semi-urban India. As farm mechanisation increasingly picks pace, we expect tractor volumes to grow at a healthy clip over medium-long term. Similarly, given the structural drivers (like greater aspirations, growing income, better infrastructure, and lower penetration) in place, we see strong growth opportunities for both PV and 2-wheeler players over the medium-long term. Coming to FY18, we expect a double-digit growth in two wheelers on the back of two successive healthy crops and robust urban demand. We estimate 10-12% YoY growth in two wheelers in this year. In passenger vehicles, new launches/refreshes would keep the excitement up amongst buyers and we expect a healthy build-up of rural demand complementing the already strong urban demand leading to 11-12% YoY growth.

PV and tractor demand also remains strong

Two Wheelers

Festive cheer and upbeat rural sentiments led to strong retail sales: **In most rural/semi-urban areas we visited, two wheeler sales were robust.** The entry/commuter segment saw strong growth. Most dealers in the Northern rural India sounded positive on demand outlook led by improving rural sentiments. Bajaj Auto recorded 25%YoY retail growth during the festive season (from Navratri until Diwali). Hero Motocorp sold ~300k (40-50% of a month's wholesales) 2Ws on one day "Dhanteras" indicating strong retail demand. In South India, post August, rainfall returned to normalcy and we expect broad based growth across the country.

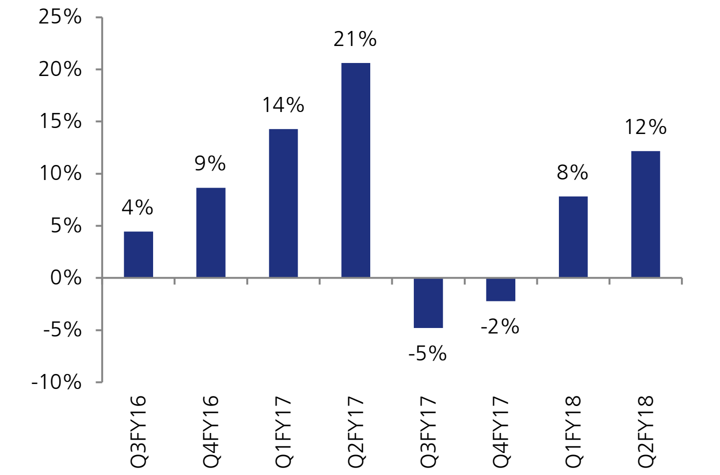
Increasing trend to buy higher displacement motorcycles – Hero Glamour/Achiever (125cc/150cc) grew much ahead of the industry growth rates

While entry level motorcycles such as Hero Motocorp's HF deluxe saw 34%YoY (YTD FY18), there is an increasing trend to buy higher displacement motorcycles. For ex: most Hero dealers we spoke to were very positive on the Hero Glamour 125, a 125 cc commuter motorcycle and Hero Achiever 150 (150 cc). Hero Achiever witnessed +58% YoY growth (until Sep'17) compared to overall motorcycle industry growth of 7.5% YoY.

Scooter penetration of 32%, gaining popularity in semi-urban areas

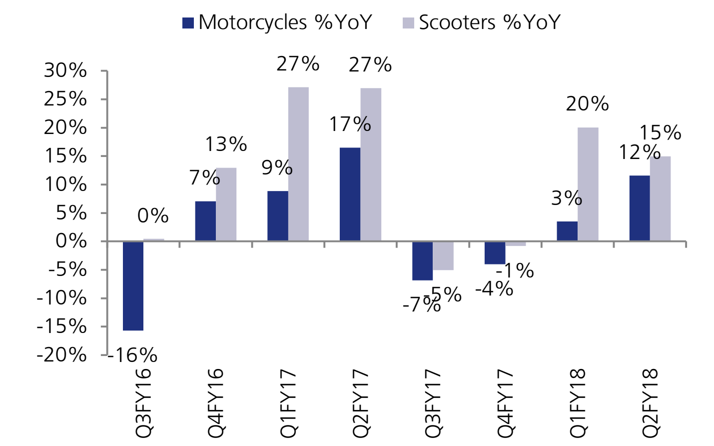
Interestingly, scooters are gaining increasing popularity in semi-urban areas. While penetration of scooters in rural areas continues to remain below national averages of 32%, we believe as infrastructure improves in these areas scooter penetration would continue to deepen.

Exhibit 160. Overall 2-wheeler growth on a healthy trajectory



Source: SIAM

Exhibit 161. Scooters growth has outpaced motorcycles over the past two years



Source: SIAM

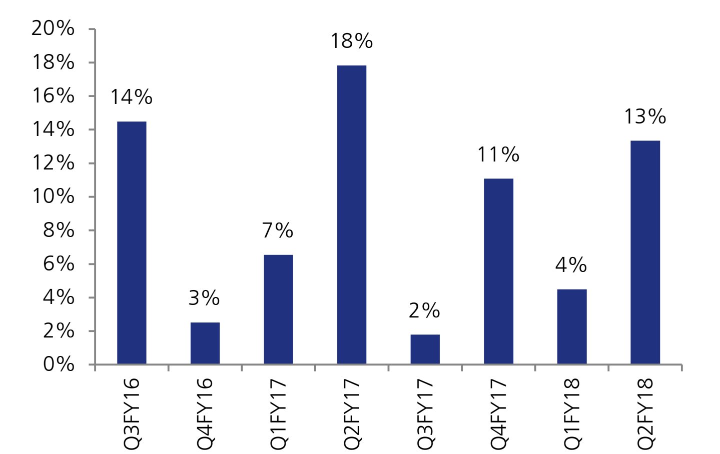
Passenger Vehicles

Passenger car penetration to increase as infrastructure improves: Rural road infrastructure has been improving over the last 3-5 years. Central schemes such as Pradhan Mantri Gram Sadak Yojana have provided an impetus to construction of rural roads. Such focus of the Central and state governments on improving rural infrastructure augurs well for increasing penetration of compact cars. Our discussions with dealers suggest this shift towards cars such as 'Celerio' and 'Dzire' is aided by increasing rural incomes. Furthermore, the lower entry price of compact cars is attractive for first time buyers as opposed to higher priced entry level UVs.

YTD Rural growth of 19% YoY vs. 16.5% YoY overall growth for Maruti , expect rural portfolio share to increase from 33% at present

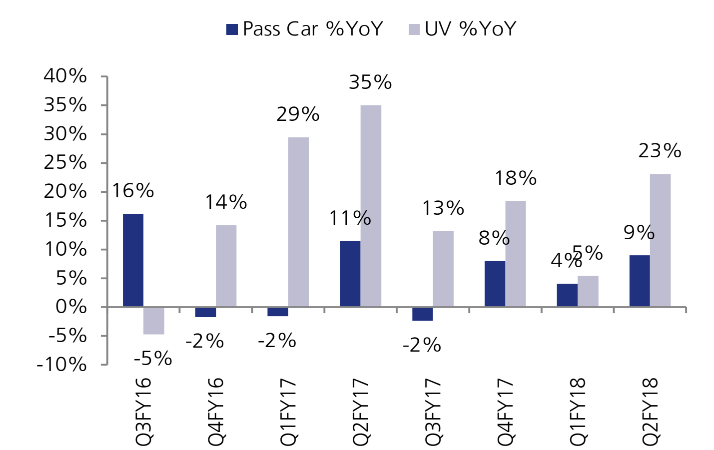
Maruti Suzuki's rural sales (33% of volumes) grew 19% YoY YTD FY18 compared with 16.5% overall growth. **We expect Maruti Suzuki's rural portfolio to steadily improve from current level of 33% of volumes led by increasing rural traction.**

Exhibit 162. Robust growth in Passenger Vehicle volume – YoY (%)



Source: SIAM

Exhibit 163. Utility vehicles (UV) growth has surpassed car growth



Source: SIAM

Maruti Suzuki's premium offerings find a lot of traction: Maruti Suzuki's premium offerings find strong traction in semi-urban / rural areas. Across regions, Maruti Suzuki's premium products of 'Baleno', 'Ciaz' and 'Vitara Brezza' have strong traction amongst customers. Although Brezza is positioned as an urban compact SUV, it has found traction in rural areas as well. **As per company, rural areas contribute to 33% of 'Vitara Brezza' sales.**

Rural regions account for 33% of sales of Vitara Brezza, which is considered as an urban product

Furthermore, with the launch of 'Baleno RS', Maruti Suzuki has managed to keep up the excitement.

Tractors

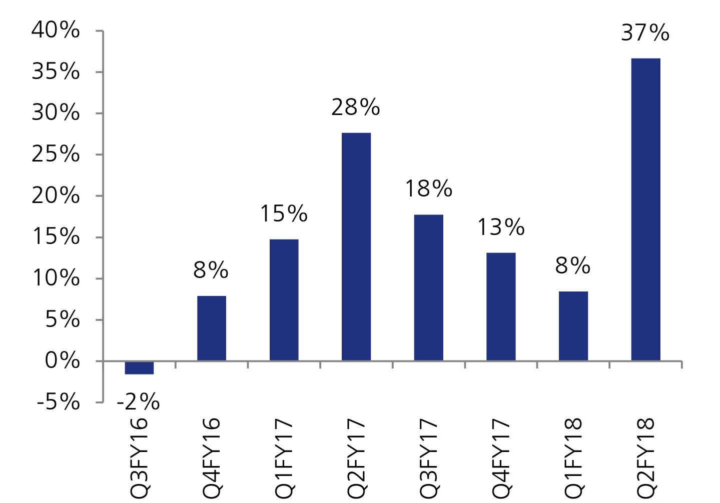
Tractor demand remains healthy

On the back of normal monsoons and healthy crop sowing, tractor demand continues to remain robust in FY18 following a strong 18%growth in FY17. **YTD FY18, domestic tractor sales recorded 21% YoY growth largely led by agri-demand.**

UP, MP, Telangana, Tamil Nadu continues to face ban on illegal sand mining while Punjab has gone the e-auction way to allow sand mining. The non-agri usage of tractors will gradually pick up as construction and sand mining activities gather pace.

Tractor demand to remain strong as revival of sand mining ban across many states would drive sales of tractors

Exhibit 164. Tractor sales have seen a sharp jump in 2QFY18, momentum remains strong



Source: JM Financial

Exhibit 165. Tractor demand remains high across regions we visited

Source: JM Financial

Increasing farm mechanisation augurs well for tractor demand

Farm mechanisation in India is much lower than the prevailing levels in developed countries and is the lowest among BRIC nations. The often cited reasons are a) higher capital cost of implements compared with manual labour b) lack of skill required to operate the machinery c) fragmented land holdings prevent optimum utilisation of mechanisation

However, of late, mechanisation is increasingly picking up pace. **The Government of India also provides capital subsidy to the tune of 40-50% of the cost of the implement**. During our visit to Guntur district in Andhra Pradesh, we observed, most paddy farmers had started using harvestors in lieu of manual labour since the cost of labour has been continuously moving upwards. Farmers in that region typically rent the harvestors for a fixed rate per acre (c.INR2,500 per acre) as opposed to daily labour wages (typically INR400-500 per day).

The increasing usage of farm implements also warrants usage of higher HP tractors since more engine power is required to pull the implements. Hence in states such as Punjab where farm mechanisation is very high, demand for higher HP (50 HP and above) tractors is greater than lower HP tractors.

Long-term tractor demand intact: Long-term tractor demand remains intact at 6-7%. In the near term, multiple factors drive demand such as **a)** monsoons given that 53% of the cropped area is dependent on monsoons, **b)** pick-up in commercial activities (construction, mining) and **c)** availability of financing at attractive interest rates.

M&M continues to lead the tractor market: Industry leader M&M leads the domestic tractor sales with a formidable c.43-44% market share currently that has increased from c.40% at the beginning for FY17. The company has registered c.23% growth in domestic tractor sales in FY17 ('Industry: 15%). Going forward, we expect M&M to outpace industry growth and maintain their leadership position.

M&M remains the industry leader with 43-44% market share and has gained share during last few quarters

eRickshaws: Unorganised to Organised shift :

eRickshaws have become highly visible across the mid and smaller towns across the North and East India and even in some areas in the Western belt. We could clearly see the multifold expansion of eRickshaws across the country and it is clearly one area of growth.

Interestingly, these eRickshaws (speed limit: 25km/hour, battery operated) are replacing manually driven Rickshaws, and are not replacing the traditional three-wheelers.

In terms of volume, eRickshaws market is highly unorganised and estimated to be of 120K units/per year, c.20% of the traditional 3-wheeler market. The major auto players - Atul Auto, Mahindra, Lohiya Auto etc. would be the major branded players along with Bajaj Auto and Kinetic. The Society of Manufacturers of Electric Vehicles (SMEV) records all the electric 3-wheelers data.

In terms of geographic segmentation, majority of the sales happen in the states of Uttar Pradesh, Bihar, Assam, Chhattisgarh and Orissa.

A highly unorganised market, lack of registration requirement deterred organised players earlier

As there were no registration norms till last year, there could not be any insurance/financing provisions and thereby organised players were not focused on this market. Majority of the unorganised players imported components from China and assembled it. With the introduction of registration norms in 2016, we expect many big brands to launch products in this space and a shift from unorganised to organised players is underway.

Target segment:of eRickshaws are the manual rickshaws

On account of the product characteristics of limited travel range of 70-80 kms and then charging time period of 8-10 hours fits with the work profile of a manual rickshaw puller, while the traditional rickshaws run potentially for 24 hours/day (12 hours self-driven, 12 hours on rent)

Cost of operating Rickshaws

For the operations of the vehicle, four 12V batteries are required with total cost of INR22K-25K each while imported batteries from China cost in the range of INR15-20K The motor cost is between INR5-10K and the life of battery is to be replaced every 10-12 months. In terms of charging costs, it comes to INR 25-30 per charge and in practise can be INR50 per charge if done externally.

In terms of companies operating, such as Atul Auto, the company sells the products through the same dealers as its existing 3-wheelers. There are Government incentives, but the process to claim is cumbersome.

Box 11: eRIchshaw "economics"

- eRickshaws are replacing manual rickshaw puller and in terms of overall income, its largely in line with earlier income, but saves on effort for the rickshaw puller.

Exhibit 166. eRickshaw in Nagpur, Maharashtra

Source: JM Financial

Exhibit 167. eRickshaw in Sonepat, Haryana

Source: JM Financial

Exhibit 168. Cost economics of an e-Rickshaw

Details	Amount
Revenue:	
Running Hours -daily (no.)	7
Average. distance travelled per hour (in km)	5
Average distance covered in 1 day (in km)	35
Revenue earned per km (in INR)	13
Revenue earned in a day (in INR)	455
No. of days of operations	30
Total Revenue earned per month (in INR)	**13,650**
Investment	
Battery purchase cost INR) - Replaced annually	24,000
Cost of the vehicle (INR. Per unit)	140,000
Loan margin percentage	85%
Loan Amount taken (in INR.)	119,000
Tenure of loan (in years)	3
Rate of interest (% p.a.)	12%
Cost break-up	
EMI payable per month (in INR) (a)	**4,129**
Battery amortisation cost per month (INR) (b)	**2,000**
Battery charging cost per day (INR)	25
Battery Charging cost per month ©	750
Other Maintenance cost (d)	500
Total Cost per month (a to d)	7,379
Net income per month (INR)	6,271

Source: JM Financial

eRickshaws are replacing the manual rickshaw puller in many states, highly unorganised market

Cement

Rural housing accounts for a significant, c.40% of the overall cement demand. There is increased focus on rural housing (10 mn houses to be built in 3 years) and rural infrastructure (roads, irrigation). A housing shortfall c.29 mn units translates into a potential demand of 260mn tonnes, and a focus on the 'pucca' houses (~66% of the rural), translates to total demand potential of 290 mn tonnes). Recent trends show volumes being negatively impacted due to demonetisation/GST and sand shortage in some regions in the short term; production data released by the government showed decline since demonetisation. However, expected rural wage growth realised due to favourable monsoon (-5% all India monsoon deficit) aided by loan waiver schemes announced in some states is expected to provide impetus to the cement demand going forward. We expect the pent-up demand to kick-in as well from 2HFY18. Implementation of the 7th CPC as well as the government's increased focus towards housing, rural infrastructure and irrigation will give significant push to the demand going forward.

Recent trends in the sector:

- **Cement production declined by c.3% YoY YTD FY18 (Apr'17-Aug'17), as against a growth of c.4% in same period FY17.** The decline was triggered by demonetisation followed by GST implementation causing disruptions in the supply chain. **We expect the demand to pick up in 2HFY18 on the back of improvement in rural income aided by the farm loan waivers offered by various states and Government's focus on housing/infrastructure.**
- **Cement prices declined in 2QFY18 sequentially after a sharp surge in 1QFY18. However**, average prices for the quarter were flat YoY. **Going forward, cement prices will be contingent on the cement demand recovery in 2HFY18.**

Rural housing accounts for c.40% of total cement demand

Factors indicating potential revival:

- Increase in discretionary spending: Growth in the farm incomes aided by loan waiver schemes in some states, positive effects of 7th CPC and favourable monsoons (-5% monsoon deficit in 2017) will help the discretionary spending like Housing.
- Focus on rural Housing: Rural housing is one of the major initiatives under PMAY (**total allocation of INR230bn under PMAY rural**). Additionally, CLSS schemes are expected to give fillip to the housing demand. These initiatives from the Government are likely to have a positive impact on the cement demand.
- Focus on rural infrastructure: **Government in its budget for FY18 allocated INR 190bn for Pradhan Mantri Gram Sadak Yojana**. Additionally, concretisation of the roads is expected to give boost to the cement demand as well. Other rural infrastructure initiatives like irrigation, hydro power projects will boost the cement demand going forward.
- Pent-up demand: Cement demand from rural segment was impacted on account of slowdown in the rural economy for last two years. This coupled with the demand decline on account of demonetisation/GST implementation is expected to drive the pent-up demand leading to growth in the volumes for cement.

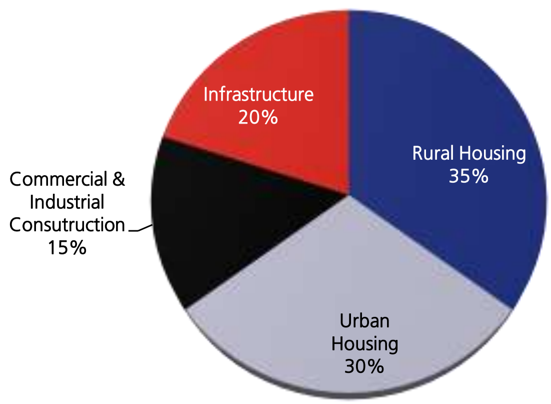
Structural drivers remain intact:

- Rural/Urban Housing: There is a shortfall of ~29 mn houses in India. Housing schemes such as "Housing for all by 2022" will help drive the demand in this segment. Government foresees construction of 10mn and 20mn houses under rural and urban housing schemes. **We expect a demand potential of 125MT from rural housing. Additionally, toilet building initiatives under Swacch Bharat is also expected to drive the cement demand**
- Focus on the 'Pucca' Houses: Major proportion of houses in the rural areas is either Kutcha or Semi-Pucca. Conversion of these to Pucca houses will also drive the cement demand.

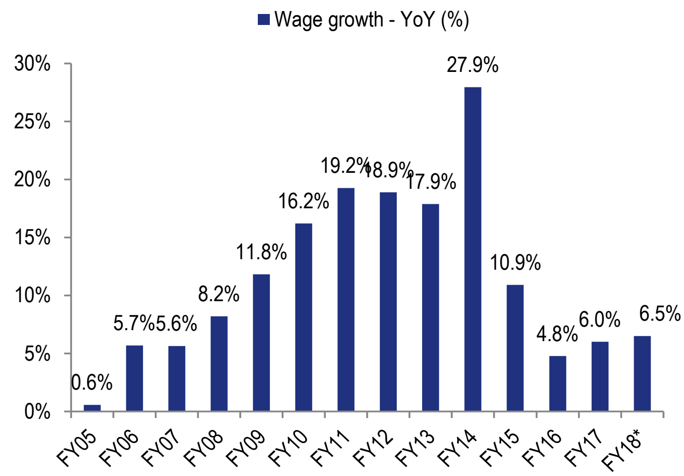
Expected uptick in Rural Wages: We expect the better monsoon (-5% monsoon deficit) to have a positive impact on the rural wage growth. This aided by loan waivers in some states, implementation of 7th CPC and government schemes devised for the agro economy are also expected to positively impact the rural wage growth

Exhibit 169. Cement demand – Rural demand remains an important demand driver, Rural housing contributes 35% to the cement demand, rural infrastructure is an additional driver

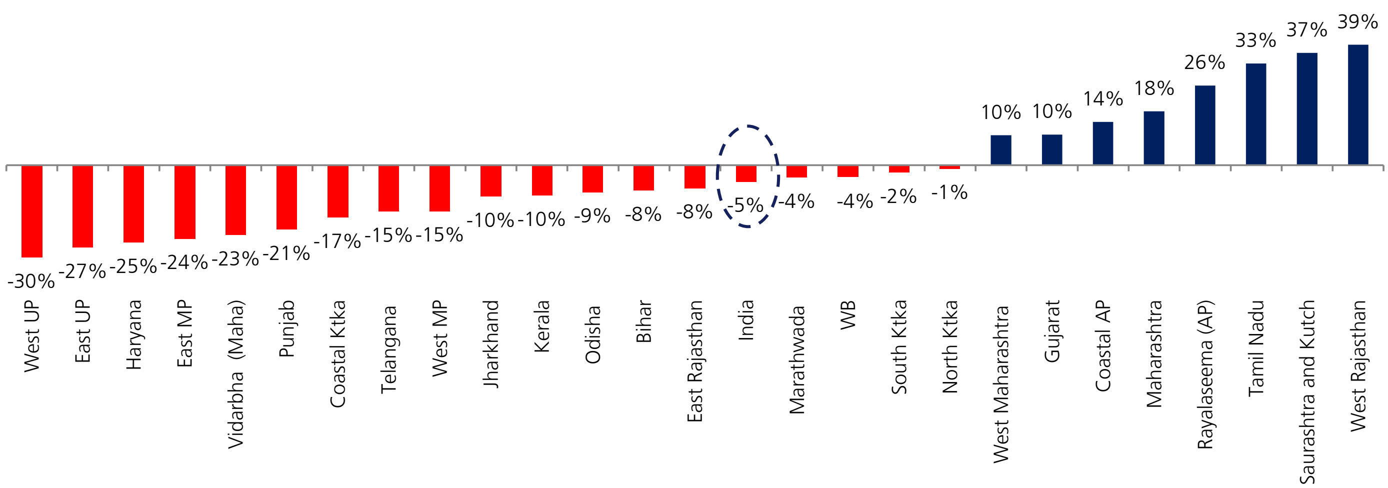
Rural housing continues to form a c.35% of the demand



Rural wage growth; key for the cement demand



Cumulative rainfall data 2017



Source: JM Financial, CMIE, IMD

Exhibit 170. Potential demand from housing of 125mn tonne

	Housing Shortages
Housing (mn units)	10
Average size of house (sq ft)	500
Estimated number of bags required per sq ft	0.5
Cement per bag (kg)	50
Potential cement demand (mn tonnes)	125

Source: JM Financial, Industry estimates

Exhibit 171. Demand segment Outlook

Demand Segment	% of total demand	Key Monitorable	Impact	
			Short Term	Medium Term
Urban Housing	25-30%	**Real Estate Regulator:** Expected to be implemented by mid-2017; will impact launches post implementation resulting in lower demand from developers	▼	=
		Budget Announcement: Could improve the disposable income; higher tax rebate could lead to revival in Urban demand; however with Government focus on EWS/LIG segment limited policy support expected in MIG/HIG segment markets	?	
		Housing for all envisages construction of 20mn houses replacing slum with potential cement consumption of 160mnT over 5 years. Till Sep Government has sanctioned 1mn houses. Execution will be a key monitorable	=	▲
Rural Housing	35-40%	**Demonetisation** led deferrals; demand could come back once liquidity eases	▼	=
		Normal monsoon in FY18 essential for Rural demand recovery	=	▲
		Housing for all rural envisages construction of 10mn houses in 3 years. This could have a potential of 100mnT of cement demand. Execution remains the key here	=	▲
Infra/Government Spend	15-20%	Government spend expected to improve with launch of various irrigation/road projects. The segment growth is essential to offset urban housing demand decline especially in the short term	=	▲
Commercial/Industry	10-15%	Economy growth linked	=	▲

Source: JM Financial

Exhibit 172. Highway construction work in UP driving cement demand – However, sand mining ban has impacted during 1HFY18

Source: JM Financial

Exhibit 173. Construction of capital city of Amravati is driving healthy demand of cement, beneficiaries could be companies like KCP

Source: JM Financial

Consumer

Our recent rural trip has given us some sense on the reasons for demand recovery being more gradual in rural areas as there has been mix of positive and negative factors that have led to some cautiousness in rural spending. Our conclusions in previous rural trips have been largely dependent on the monsoon factor, given its ability to swing rural incomes, but, as in recent trip, we saw some negative factors emerge that could keep rural spending under check despite a near-normal monsoon. Uneven distribution of rainfall (with some areas facing drought), lower crop output, GST-related disruption and a subdued growth in non-farm income have – to some extent – offset the positive effects of a near-normal monsoon, farm-loan waivers and better crop realisations. These reasons have probably driven most consumer staples companies to moderate their expectations on rural recovery (now expected to be more gradual). However, discretionary demand could receive some fillip from a sharp increase in retail credit penetration. Hence, we expect companies in the discretionary space (paints, jewellery, apparel, etc.) to be in a better position to leverage rural recovery relative to staples.

- **Rural spending recovery expected to be more gradual on account of moderate growth in rural income, despite a near-normal monsoon:** While a near-normal monsoon should have aided in driving higher rural incomes, a mixture of negative factors such as uneven distribution of rainfall (with some areas facing drought), lower crop output, GST-related disruption and subdued growth in non-farm income are expected to constrict growth in rural incomes in the near term (expected to be in high-single digits).

- **Staples demand to return to pre-GST levels, but pace of recovery could be more subdued than expectations:** Staples companies recorded near-flat to declining volumes in 1QFY18 as inventory clearance within the supply chain before GST implementation impacted primary demand. While market research agencies signalled a strong revival in retail offtakes, the experience of staples' companies led them to conclude that recovery in rural demand is more gradual than that being suggested by market research companies. Overall, while growth is expected to revert to pre-GST levels (mid-single digits for HUL), it may not reach the levels seen in better times such as FY11-FY12, especially given the more subdued growth in rural incomes.

- **However, penetration of retail credit should help discretionary consumption:** In recent times, there has been a sharp increase in the penetration of retail credit for consumer durables in rural areas. Given that rural incomes are improving, a major part of the surplus would be directed towards purchases of more discretionary items such as apparels and jewellery; it would also be spent on renovation of houses (painting, home improvement, etc.), in our view. This demand would also be aided by higher credit availability, which would help enhance purchasing power. Some utility items such as bikes/scooters, tractors, warehouses, etc. could also see healthy demand.

- **Stable marriage spending could help apparel demand on a low base; V-mart could continue to benefit:** Demand for value-conscious fashion apparel has seen a healthy recovery over the past 9-12 months owing to a better monsoon and a small shift from the unorganised segment. With improved rural incomes and the high likelihood of apparel purchases during weddings, we expect the growth trajectory for value-conscious fashion to sustain. V-Mart has a higher presence in agrarian states such as UP and Bihar and could remain a beneficiary of this trend. V-Mart also sells products at low prices, which makes it affordable for rural consumers.

- **Patanjali products' availability in rural areas remains limited:** As per our survey, availability of Patanjali products in rural areas remains limited. While stores in some areas prominently displayed Patanjali advertisements, other stores did not even stock Patanjali products on account of low demand. Ayurvedic/natural products' attractiveness remains lower among farmers due to lower price competitiveness (synthetic products such as lifebuoy soaps available at lower prices) and lower fascination with natural products. Patanjali also continues to face competition from other Ayurvedic brands such as Kesh King and Himalaya.

Exhibit 174. Two-wheeler penetration in a village of landless labour at Raisen, MP– 5% of the household owned 2W's indicating high unmet potential

Source: JM Financial

Exhibit 175. A village in Bhatinda, Punjab – High level of consumer durable penetration, use of air coolers for livestock…. -

Source: JM Financial

NBFC: Growth outlook improving, asset quality stress stabilizing

We visited Mahindra Finance, Magma Finance, Repco Finance, Satin Creditcare and other financier's branches during our recent rural trip. Our interactions at branches and with dealers and customers indicate rural sentiments improvement has been limited despite good monsoons due to i) lower crop yields in some parts of North India, ii) floods in Bihar iii) weak property prices and iv) weak business sentiments due to GST related issues. However, first few days of the festive season has seen good growth traction. Collections efficiency for NBFC such as MMFS witnessed slight improvement YoY and stood at 95-96% while for Microfinance players such as Satin, improved from 50-60% during Demonetization to more than 90% in 2QFY17. After the announcement of loan waivers, some of the banks such as Axis Bank have reduced its rural disbursements by almost half while some of the NBFCs like Magma has become cautious in tractor lending. Further, many of the NBFCs including Magma, Repco and Satin have tightened their credit appraisal process post demonetization. We believe the Government's renewed focus on the rural economy, infrastructure, affordable housing and significant increase in allocation of funds towards rural sector in the Union Budget of 2017, shall definitely help create the demand which in turn will revive the economic growth. In the short term, we expect growth trends to improve, however credit costs for NBFCs could remain elevated as some players are yet to migrate to 90DPD.

Improvement in collections at rural financiers

- Collection trends improving for NBFCs: We interacted with various financial institutions including Mahindra Finance, Magma Finance, Repco Finance, Satin, Equitas and most of the financiers have witnessed slight improvement in collection efficiency in July-Sept. While events such as GST, floods in Bihar, Dera event in Haryana/Punjab impacted the business for few days, it has now returned to normalcy. Despite good monsoons in most parts of India, farm cash flows has been impacted due to lower crop yields (due to unseasonal rains) in some parts of North India, floods in Bihar.

- Takeaways from MMFS' management about its performance: Management expects 15%+ growth in FY18 driven by i) good monsoons, ii) increased govt. spending in states due for elections next year – Gujarat, Karnataka, Rajasthan, Chhattisgarh and MP; iii) an increase in direct marketing initiatives, which now accounts for 20-25% business sourcing; iv) acceleration of growth in the pre-owned vehicle segment and v) an increase in penetration – management expects to enter another 0.1 mn villages (from 0.33 mn as of FY17) over the next 3 years. Additionally, management expects the upcoming festival to have a positive impact on growth and farm waivers are expected to boost consumption. The migration from a geography-centric collection mechanism to bucket-specific collections has clearly helped the company, leading to a 5-6% improvement in collections efficiency YoY. This, coupled with lower incremental slippages, an improvement in customer sentiments due to a good monsoon and a reduction in disposable losses due to lower repossessions would lead to stable or lower GNPL despite migrating to 90DPD. Therefore, with higher growth and improvement in collection efficiency, management expects RoA to improve to 2% by FY18 (vs. 1.1% in FY17) on a like-to-like basis (120DPD).

- Expect govt. spending to pick up: Multiple measures were announced in the Union Budget to improve credit uptake in rural areas, to improve insurance coverage as well as increased allocation to MGNREGA (rural employment guarantee scheme). The government has also stepped up spending on infrastructure-related projects sharply by increasing allocation to roads and rural infrastructure. Going forward, we believe, government spending in rural India coupled with pick up in infra activities should improve the non-agri. income for farmers. Additionally, there would be positive impact of the 7th Pay Commission, which is likely to improve customer cash flows. The current scenario is reminiscent of FY11, when rural India bounced back from a drought year, thanks to 2% above-normal monsoons and the government's rural stimuli. In that year, agri. GDP rose 8%, while, tractors grew 20% YoY and 2-wheelers 19% YoY. Furthermore, rural financiers such as MMFS witnessed 47% AUM growth, while its GNPL declined to 4.2% in FY11 (vs. 7% in FY10).

Box 12: MMFS branch visit summary (Punjab/Bihar) (Sep 2017)

- We visited MMFS' branch in Punjab (Bhatinda) and Bihar during our recent rural trip to understand the current rural economic scenario.
- Punjab - Stable asset quality trends: Though the farm cash flows were stable in Punjab, outlook was slightly weak due to lower yields (on account of unseasonal rains, higher humidity and few incidences of pest attacks) and lower realisations (cotton prices were weak at INR 4,200 – 4,400 vs. INR 5,000 – 7,000 YoY). On the positive side, there was some improvement in non-farm income due to resumption of sand mining in Amritsar and up gradation of National highway.
- MMFS disbursements have remained flat in Bhatinda due to i) limitations on cash collections post Demonetization ii) GST and iii) event like "Ram Rahim Dera Sacha Sauda" which impacted the sales for 8-10 days in Punjab/Haryana. However, growth traction during first few days of festivals seasons was strong and expects to pick up from here. Further, used vehicles saw good traction and the company wants to increase its penetration in this segment as the market risk is lower (65% LTV and ticket size of INR 0.25- 0.28mn for used tractors and INR 0.15-0.18mn for used cars). Asset quality trends remained stable YoY in Punjab with GNPL at 10% and 40-50% cases are between 90-120DPD bucket. Of this most of the overdue is in tractor portfolio, however branch manager expects some recovery during November. There was some disruption in collections due to the protests from Ram Rahim Dera which has now normalised. The collection efficiency in Bhatinda remained stable at 96%.
- Shift from unorganised to organised channels in lending business post demonetization: A trend which is seen in at least Punjab/Haryana is the reduction in the role of local village financiers and increased usage of formal financing. The local financiers (Sarpanch, large farmer in a village, moneylenders) are evaluating the environment and have reduced their cash businesses which could be a growth driver for the organised lenders. This is also reflected in the sharp increase in financing share for Rural customers' increase across PV's (from 50% one year back to 70-75% now, tractors from 70-75% to 85% now.
- Stable collection efficiency at 96% in Bihar/Jharkhand: With around one-third area of Bihar impacted by the floods, collections were down in August with branch able to achieve only 50% of its target but branch manager expects sharp recovery from September/October onwards. Overall collections efficiency remained stable at 96.2% in Bihar. In terms of tractor sales, growth in Bihar was sluggish and sales declined by 4% YoY YTD in FY18 (vs. 4% in FY17) while Jharkhand witnessed healthy growth of 35% YoY. But branch management expect expects strong recovery in 2H and expects to close the year at 5-6% YoY growth as the festive season commences.

Stable asset quality, flat disbursements

Box 13: Axis Bank Rural Lending Branch, Bhatinda

- Disbursement for the branch was down by 50% YoY at INR 40mn due to the i) reduction in maximum loans that can be sanctioned: Disbursement/acre is now reduced from INR 0.25mn to INR.109mn. (This includes cultivation cost, cost to buy up to 6 cattle). Most farmers get the maximum loan irrespective of the crop they are growing. There is no monitoring of the end use ii) the bank has become reluctant to lend to farmers with land holding less than 2 acres post farm waivers. iii) Increase in prepayments during Demonetization phase (farmers repaid through old currency).
- Despite the impact of loan waiver, NPLs are less than 1% (book size of INR 3bn)

Reduction in disbursements

Box 14: Magma Finance branch visit summary (Chennai) (Sep 2017)

- We visited Magma Finance's branch in Chennai during our recent rural trip to understand the current rural economic scenario. While loan growth in TN stood at 13% YoY, collection efficiency remained stable at 95% (stable YoY)

- Asset-based financing: 13% YoY growth in Tamil Nadu: This branch has AUM of INR 10bn with 70% asset-based financing (45% new car, 15% used car, 10-15% CV) and 30% business loans. The company mainly caters to No income proof (NIP) segment. Loan growth for the TN has grown by 13% YoY and incrementally, company is focusing more on used cars/CVs (Yields 15.5% to 19%). i) Tractor: The company has become cautious in tractor financing where it has witnessed higher NPLs historically and is only giving loans to the existing customers due to concerns about loan waiver which affects customer behaviour. The company is mainly focusing mostly on companies such as M&M, Escorts, and John Deere and LTV is 75% ii) CV: Customer profile is mainly earn and use customers. Growth in New CV business is muted except for de-silting CV, back-loaders etc. Excavator sales are muted due to the ban on sand mafia. GNPL in CV is 8-9% iii) Cars: Car segment has growth by 12% YoY with main focus on MUV (Maruti, Hyundai, M&M - Scorpio, Toyota - Innova). Its competitors such as Mahindra Finance have a slight edge as it provides trade advance to dealers which helps them create relationships. Magma is not engaged in trade financing currently. iv) Used CV: For Used CV, valuations are done based on both internal and external valuation methods. The company does not finance CVs that are over 12 years old for CVs and more than 8 years for tippers. Companies such as Sundaram Finance and TVS credit have a strong presence in CV due to good third-party settlements which need a lot of expertise and are not easy to replicate. Magma is trying to compete with them by tying with RTO empanelled agents.

- Changes at the underwriting and operational level augur well for the growth: The company has made various changes in its processes in the past year including: i) Salespeople are given tablets and are accountable for first year collection ii) Implementation of early warning signals - If credit quality breaches a trigger, company would stop disbursement in that product. First three months are critical and closely monitored. eg: The company entered into taxi segment and exited the segment when it witnessed some stress (Ola, Uber market) iii) LTV has been reduced to 70% for car segment iv) Branches are now classified based on the their asset quality performance. Further, distance of branch operations is reduced from 200 to 125km.

- SME Loans – most profitable segment with RoA of more than 4%: It is the most profitable segment for the company with RoA of more than 4% and GNPLs at 2%. This vertical mainly focuses on WC loans for businesses (90%) where yields are 18-21%. Typical business turnover of its customers is INR 10-500 mn and the company offers unsecured loans to its customers. It is primarily dependent on DSAs (90%) to source its business. Company expects 25% growth in SME in FY18E.

- SME - Credit risk for Magma Finance has improved and incremental slippages have reduced YoY due to the various changes made in the past year: i) It has **reduced geographic limits** or branch operations from 125 to 75 km ii) **Tightened DSCR policies** from historical to internal projections. iii) The company has listed out few sectors where it will not lend including sectors dealing with TN govt, textiles, granites etc. iv) Its **book has become more granular** and avg. ticket size has come down from INR 2.5 mn to INR 19 mn. v) **Digitisation initiatives –** All collection officers are now provided tablets and every activity of their officers is tracked through geo tagging. The company heavily uses analytics to improve its underwriting practices which has helped it to reduce decision time to 6 hours vi) **Credit assessment process has become more stringent** and is done based on financials for past 3 years and underwriting is based on 6-7 parameters (turnover ratios, CF analysis, debt-to-capital etc.) and if more than 3 criteria are not met; decision is taken from HO. On-ground assessment by branch and rejection ratio is 50%. While the company does not factor unaccounted income for loan assessment, it gives top-up loans on it.

Improvement in under-writing and operational process, optimistic on growth, stable collection efficiency at 95%

Exhibit 176.Meeting with borrowers at Bhatinda, Punjab

Source: JM Financial

Exhibit 177. Meeting with borrowers at Bhojpur district, Bihar

Source: JM Financial

We also interacted with borrowers at micro-finance loans at UP & Bihar and among our sample set the key areas for taking the loans were –

(a) Small business purpose (40%),

(b) Livestock (25%),

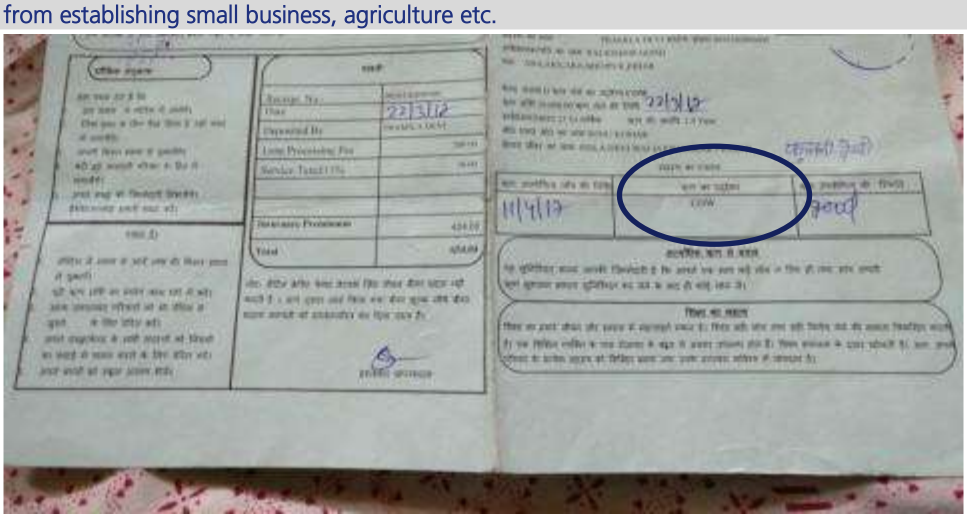
(c) Farming (15%),

(d) Others (20%).

Essentially, the microfinance institutions are helping rural population to substitute high cost informal debt (2%-10% monthly interest) with c.18%-24% per annum debt.

Borrowers value the access to formal financing much more in regions with low infrastructure such as North and Eastern India

Exhibit 178.Why do rural folks borrow - Livestock purchase is a key driver of borrowing, apart from establishing small business, agriculture etc.



Source: JM Financial, Example from borrowers at Bhojpur, Arrah

Collection efficiency reverting to normal levels, cautious in disbursements

Box 15: Satin Creditcare Network Ltd (SCNL) centre visit summary (Punjab) (Sep 2017)

- We visited SCNL centres in Bihar/Punjab/UP during our recent rural trip to understand the current scenario in the MFI industry.
- Focus on collections has led to muted loan growth: Post Demonetization, the company has focused on collections and incremental growth is primarily coming from the existing customers. In Patna/Muzaffarpur/Varanasi centres, overall portfolio has declined 10-25% while Bhatinda saw 15-20% improvement in growth. Average ticket size for the first cycle customer stood at INR 20,000 and INR 25,000-30,000 for the second cycle customer. In order to improve its fee income and diversify its portfolio, SCNL has tied up with Capital First for 2W loans and is also planning to enter Housing Finance
- Well-defined process in place: In a bid to de-risk the cash collection model, SCNL is in the process of adopting cashless collection and disbursement process which will augment operational efficiencies. Cashless disbursement is being implemented in some of the geographies we visited including Bihar. Additionally, cost-rationalisation efforts in the form of process automation (all loan officers are now given tablets), increase in the ratio of borrower/loan per employee could lead to some improvement in cost ratios.
- Asset quality issues moderating, however credit costs to remain elevated due to stress in UP: Intense training programmes, three layers of credit appraisal, regular inspections and audits are integral to the business model which has enabled SCNL to ensure credit control. However, post Demonetization, asset quality deteriorated with GNPL increasing to INR5.5bn in 1Q18 (vs. INR55mn in FY16) due to stress in states such as UP/MH/MP. After the initial issues related to Demonetization, RBI dispensation-related confusion, and state and local elections, the situation has been slowly normalizing since March 2017. From the borrowers' demand for complete loan waiver to waiver of charges to reduction in interest rates, lenders have ultimately agreed to extend the loan tenures (lack of options). At PAR (>30d), delinquency levels are still elevated and are unlikely to fall steeply, given the inability of customers to make balloon payments of overdue instalments. Collection efficiency has started improving after Demonetization and company saw 96% collection efficiency in Eastern UP and 90-95% in Punjab (vs. 50-60% during demon). Collection efficiency in Western UP has remained low but is showing signs of improvement.
- Focus on improving underwriting policies has led to improvement in collection efficiency: Company has made several changes in its underwriting policies including i) Aadhar card has been mandatory which helps to filter duplicate loans. ii) Company has migrated to fortnightly collections (vs. monthly collections earlier) which has led to improvement in collection efficiency iii) Collection officers have been given tablets which helps the company to monitor collections on real time basis and track misreporting iv) Most of the officers are recruited from outside the city and are rotated periodically and v) It only lends to the customers which owns a house in a village. We believe these changes would positively support asset quality going ahead. However, despite such changes, there have been few concerns related to i) monitoring of end use ii) presence of relatives within the same group iii) political risk iv) ever-greening of loans and v) competition from players that do aggressive lending, which could keep delinquencies higher than the normal.
- Increasing awareness of self-regulatory organisations is promoting credit discipline: The introduction of self-regulatory organisations such as the Microfinance Institutions Network (MFIN) and Sa-Dhan, and the establishment/prominence of credit information bureau, Equifax Credit Information Services Private Limited (Equifax) and CRIF High Mark Credit Information Services (Highmark) have played a vital role in bringing about integrity, transparency towards clients and protecting them from unethical practices and ensuring privacy.

Box 16: Repco Finance visit summary (Chennai) (Sep 2017)

- We visited Repco Finance's Chennai branches. Our interaction at branches indicates improvement in asset quality with GNPLs to reduce to below 3% in 2QFY18 (vs. 3.9% in 1Q) driven by i) higher recoveries ii) company tightening its underwriting standards after demonetization and iii) reducing its exposure to high ticket LAPs. Currently, its loan growth has been impacted due to the ban on the registration of unapproved projects in Tamil Nadu, rising sand prices and limitations imposed on cash transactions. With issues such as registration and sand availability getting partially resolved, we expect business momentum to pick up going forward.

- Slow disbursement growth: We visited Repco's branches in Adyar (INR 3.8bn portfolio) and Ashok Nagar (INR 3.2bn portfolio) in Chennai. Disbursements run rates for these branches have slowed down from INR 100mn-150mn per month to INR 60mn-100mn per month. Further, prepayments have increased to 20-30% (vs. 10% earlier). The company has high exposure to TN (62% of total portfolio) which has been impacted due to i) Regularisation of Unapproved Plots: TN govt. imposed a ban on property registrations in unauthorised housing layouts during Sep'16 but relaxed during May'17 by allowing regularisation of unauthorised layout. ii) Rising sand prices – Govt. has addressed this by making e-auctioning of sand compulsory. iii) Capping of cash component in registration: Earlier, cash advances were allowed; now a maximum of INR 20,000 is allowed to be in cash. Govt. mandates all property-related transactions to happen through banking channels. iv) Decrease in the guidelines value of the land by 33% while increasing registration fees from 1% to 4% leading to increase in property cost; clampdown on cash component of purchases has negatively impacted the property prices hindering property sales. With issues such as registration and sand availability getting resolved, we expect business momentum to pick up going forward and expect 16% CAGR over FY17-20E.

Deceleration in disbursement growth

- Underwriting policies have been tightened since demonetization: After Demonetization, Repco tightened its underwriting standards owing to rising risks in its portfolio. i) Loan appraisal for LAP is now based on 3x reported business income (earlier there was no limit) ii) Home Loan assessment is now based on value on sales agreement (earlier, cash component was also considered); further, valuations are now based on distressed value (~20% of market value) iii) DTCP, CMDA approval is mandatory; iv) proof of agreement (Margin money paid at the time of agreement) through banking channels has been made mandatory (Earlier only a letter from client and the seller was required); v) the company is now focusing on home loans with ticket size <INR 5mn and has reduced its exposure in loan accounts more than INR 10mn; vi) branch feedback suggests that customers are willing to pay penal interest of 2% but don't want to take out capital from their business for loan repayment. The increase in NPLs is primarily on account of a delay in EMIs, which the company is confident of recovering. The company expects GNPL to improve to below 3% in 2QFY18 (vs. 3.9% in 1Q) and below c.1.5% by FY18.

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Company

Exhibit 179. Valuations

Company	Reco	Mkt Cap (`INR bn)	CMP	TP	EPS (INR)			EPS Gr (%) 17-19E	PE (x)			EV/EBITDA (x)		P/BV (x)		ROE (%)	
					FY17	FY18E	FY19E		FY17A	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E
Coromandel International	NR	146	501	NR	16.4	21.4	25.4	24.6	19.1	23.4	19.7	14.1	12.4	4.4	3.9	19.6	20.8
Finolex Industries	NR	89	718	NR	28.4	28.3	33.1	8.0	20.4	25.4	21.7	15.9	14.0	4.1	4	17	18
KCP Limited	NR	16	125	NR	2.3	3.1	3.9	30.2	37.5	40.2	32.0	-	-	-	-	-	-
M&M Financial	BUY	232	408	500	7.1	14.9	20.9	71.7	57.6	27.4	19.5	2.7	2.5	2.7	2.5	11.6	13.2
V-Mart Retail	NR	26	1,410	NR	21.9	31.3	41.4	37.5	37.7	45.0	34.1	22.3	17.5	7.9	6.5	18.7	20.6

Source: JM Financial, Bloomberg, Valuations as on Oct 24, 2017

Coromandel International | NOT RATED

Helping farmers gro(w) mor(e)

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Coromandel International (CRIN) is a flagship company of the Murugappa Group and is among India's largest integrated agri solutions providers, operating across plant nutrition, crop protection, agri retailing and extension services segments. With a phosphatic fertiliser capacity of 3.5MTPA (24% of domestic capacity), CRIN is the largest private sector phosphatic fertiliser manufacturer in India and enjoys a 14.5% market share with strong presence in South, East and West India. Its flagship brand "Gromor" commands significant farmer goodwill and has strong brand recall among farmers, especially in southern states. In the crop protection business (of which 60% is exports), the company is the 5th largest player in India with total technical manufacturing capacity of 50,000TPA and the 3rd largest mancozeb manufacturer globally. CRIN is also one of the pioneers and market leaders in the specialty nutrients business and is India's top organic manure player. We do not have a rating on the stock.

- **An integrated agri solutions provider:** CRIN primarily operates in two business segments: **(a) Nutrient and allied businesses** (86% of revenues), comprising **(i) subsidy business** - manufacture and sale of **phosphatic fertilisers and SSP**, and **MOP trade, (ii) specialty nutrients business** - water soluble fertilisers (WSFs), sulphur products and micro nutrients and (iii) **organic manure business**, and **(b) Crop protection business** (14% of revenues), which involves the manufacture and sale of technicals and formulations in India (40%) and overseas (60%). **The company also operates a retail arm through its 800 Mana Gromor centres across the states of Andhra Pradesh, Telangana and Karnataka.**

- **A positive outlook across segments:** In our recent interactions, management guided for **10%-15% growth in the fertiliser segment for the current year and c.90% capacity utilisation (from 70% currently) in the next 2 years**. Further, the company expects to see benefits on the margin front, driven by expansion of phosphoric acid capacity (phosphoric acid is a key raw material for CRIN, of which 25% is currently captively sourced) by 0.1MT, from which management expects a delta of USD 100-125/ton. In FY17, the company also augmented its mancozeb capacity by c.30%, which is likely to aid higher volumes in FY18. Management also expects strong growth of c.20%-25% in the specialty nutrients segment in FY18 and doubling of revenues in the segment to INR 5bn (from INR 2.5bn currently).

- **Financials and valuations:** While CRIN's subsidy business has remained flat, the non-subsidy business posted a revenue/EBITDA CAGR of 14%/3% over FY12-FY17. While the subsidy receivable from the government stood at INR 25bn as of FY17, management expects the release of a portion (likely 10%) of the subsidy before DBT kicks in, thereby alleviating some of its working capital burden. With c.70% of revenues coming from South India, vagaries of the monsoon in southern states remain a key risk.

Key Data – CRIN IN	
Current Market Price	INR 505
Market cap (bn)	INR 148.0/$2.3
Free Float	95.1%
Shares in issue (mn)	292
Diluted share (mn)	292
3-mon avg daily val (mn)	INR 103.2/US$1.6
52-week range	505/229
Sensex/Nifty	32,556/10,217
INR/US$	65.1

Price Performance			
%	1M	6M	12M
Absolute	13.3	37.6	81.9
Relative*	12.9	26.5	65.9

* To the BSE Sensex

Exhibit 1: Financial Summary (INR mn)

Y/E March	FY13	FY14	FY15	FY16	FY17
Net sales	90,337	1,00,532	1,13,064	1,14,814	1,00,308
Sales growth (%)	-8.8	11.3	12.5	1.5	-12.6
EBITDA	7,679	8,052	8,535	7,668	9,827
EBITDA (%)	8.5	8.0	7.5	6.7	9.8
Adjusted net profit	4,320	3,565	4,018	3,574	4,770
EPS (`INR)	15.3	12.5	13.8	12.3	16.4
EPS growth (%)	-36.1	-18.4	10.8	-11.1	33.3
ROCE (%)	13.3	12.8	14.0	10.9	12.5
ROE (%)	18.8	15.9	17.4	14.4	17.3
PE (x)	33.1	40.5	36.6	41.2	30.9
Price/Book value (x)	4.5	4.3	4.2	3.7	3.4
EV/EBITDA (x)	15.7	13.5	13.1	15.4	11.7

Source: Company data, JM Financial. Note: Valuations as of 23/10/2017

Financial Tables (Consolidated)

Profit & Loss			(INR mn)		
Y/E March	FY13	FY14	FY15	FY16	FY17
Net sales (Net of excise)	**90,337**	**1,00,532**	**1,13,064**	**1,14,814**	**1,00,308**
Growth (%)	-8.8	11.3	12.5	1.5	-12.6
Raw material (or COGS)	68,190	74,806	86,225	87,231	71,210
Personnel cost	2,298	2,705	2,779	2,919	3,108
Other expenses (or SG&A)	12,171	14,969	15,526	16,997	16,163
EBITDA	**7,679**	**8,052**	**8,535**	**7,668**	**9,827**
EBITDA (%)	8.5	8.0	7.5	6.7	9.8
Growth (%)	-27.2	4.9	6.0	-10.2	28.2
Other non-op. income	701	608	566	665	548
Depreciation and amort.	711	961	1,046	1,061	1,007
EBIT	**7,669**	**7,699**	**8,055**	**7,272**	**9,368**
Add: Net interest income	-2,102	-2,403	-2,096	-2,209	-2,238
Pre tax profit	5,567	5,297	5,959	5,062	7,130
Taxes	1,231	1,521	1,902	1,716	2,353
Add: Extraordinary items	0	-126	-39	250	0
Less: Minority interest	17	84	0	22	7
Reported net profit	4,320	3,565	4,018	3,574	4,770
Adjusted net profit	**4,320**	**3,565**	**4,018**	**3,574**	**4,770**
Margin (%)	4.8	3.5	3.6	3.1	4.8
Diluted share cap. (mn)	282.90	286.15	291.15	291.31	291.54
Diluted EPS (INR.)	**15.27**	**12.46**	**13.80**	**12.27**	**16.36**
Growth (%)	-36.1	-18.4	10.8	-11.1	33.3
Total Dividend + Tax	5	5	5	4	5

Source: Company, JM Financial

Balance Sheet			(INR mn)		
Y/E March	FY13	FY14	FY15	FY16	FY17
Share capital	283	283	291	291	292
Other capital					
Reserves and surplus	21,683	22,526	23,099	26,048	28,616
Networth	21,966	22,810	23,390	26,340	28,908
Total loans	29,458	18,429	21,220	26,267	22,284
Minority interest	1,063	254	0	0	0
Sources of funds	**52,487**	**41,492**	**44,610**	**52,607**	**51,192**
Intangible assets	4,867	3,641	213	202	199
Fixed assets	21,045	21,841	22,340	23,119	23,755
Less: Depn. and amort.	7,349	8,141	9,136	10,018	10,596
Net block	18,563	17,341	13,418	13,303	13,358
Capital WIP	4,201	744	386	309	137
Investments	1,599	3,418	4,497	4,772	3,885
Def tax assets/- liability	-1,877	-1,890	-1,899	-1,679	-1,495
Current assets	59,758	54,545	64,159	72,471	68,366
Inventories	14,775	17,529	22,522	23,458	17,246
Sundry debtors	18,201	14,835	13,034	16,419	16,217
Cash & bank balances	5,346	4,722	3,099	1,978	1,678
Other current assets	126	142	20,805	25,817	28,002
Loans & advances	21,310	17,319	4,700	4,800	5,223
Current liabilities & prov.	29,270	32,190	36,560	37,230	33,508
Current liabilities	27,462	30,435	36,493	37,151	33,360
Provisions and others	1,808	1,755	67	79	147
Net current assets	30,488	22,355	27,599	35,241	34,858
Others (net)	-487	-473	608	661	449
Application of funds	**52,487**	**41,495**	**44,610**	**52,607**	**51,192**

Source: Company, JM Financial

Cash flow statement				(INR mn)	
Y/E March	FY13	FY14	FY15	FY16	FY17
Reported net profit	4,320	3,565	4,018	3,574	4,770
Depreciation and amort.	677	792	994	882	578
-Inc/dec in working cap.	-4,147	1,161	-3,361	-4,466	6,553
Others	905	-809	-254	0	0
Cash from operations (a)	**1,755**	**4,709**	**1,398**	**-10**	**11,901**
-Inc/dec in investments	-104	-1,819	-1,080	-275	887
Capex	-5,215	3,887	3,286	-690	-461
Others	4,223	6,347	-3,506	-4,297	-6,470
Cash flow from inv. (b)	**-1,096**	**8,415**	**-1,299**	**-5,261**	**-6,043**
Inc/-dec in capital	-6,353	-2,717	-3,433	-621	-2,196
Dividend+Tax thereon	-5	-5	-5	-4	-5
Inc/-dec in loans	24	-11,030	2,791	5,047	-3,983
Others	1,173	-1	-1,073	-272	28
Financial cash flow (c)	**-5,160**	**-13,752**	**-1,719**	**4,150**	**-6,157**
Inc/-dec in cash (a+b+c)	-4,501	-627	-1,620	-1,121	-300
Opening cash balance	9,847	5,346	4,722	3,099	1,978
Closing cash balance	5,346	4,719	3,101	1,978	1,678

Source: Company, JM Financial

Key Ratios					
Y/E March	FY13	FY14	FY15	FY16	FY17
BV/Share (INR`)	113.0	117.3	120.3	135.4	148.2
ROCE (%)	13.3	12.8	14.0	10.9	12.5
ROE (%)	18.8	15.9	17.4	14.4	17.3
Net Debt/equity ratio (x)	1.0	0.5	0.6	0.7	0.6
Valuation ratios (x)					
PER	33.1	40.5	36.6	41.2	30.9
PBV	4.5	4.3	4.2	3.7	3.4
EV/EBITDA	15.7	13.5	13.1	15.4	11.7
EV/Sales	1.3	1.1	1.0	1.0	1.1
Turnover ratios (no.)					
Debtor days	74	54	42	52	59
Inventory days	60	64	73	75	63
Creditor days	13	15	12	11	15

Source: Company, JM Financial

Finolex Industries | NR

Time to back a champion

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Finolex Industries limited (FIL) is the leading branded supplier of PVC pipes and fittings (primarily in agriculture sector – c.70% of FY17 revenue commanding significant market share in organised space) with strong distribution reach and regional presence (very strong in West and South India). FIL is the only large backward-integrated player in the domestic market that manufactures PVC resins at its plant in Ratnagiri. FIL tied up with global CPVC giant Lubrizol in Feb'17 to launch FlowGuard Plus CPVC pipes and fittings in India, riding on its ambition to generate 50% of revenue from non-agri sectors over the next 4-5 years. The company has set an ambitious target of USD 1bn sales by 2020 (more than 25% CAGR) by doubling its capacities to cater to increasing demand arising out of a) the government's aim to double farm income by FY22, b) heavy investments planned in irrigation and water sanitation projects, c) foray into CPVC piping (focus on non-agri revenue) and d) a market share shift from the unorganised sector on GST implementation. As per a recent CRISIL report, the Indian piping industry is expected to post 12-14% CAGR over FY17-22E; FIL is the second largest player with a 9% market share in FY17. The stock currently trades at 15x FY17 EV/EBITDA and 24x FY17EPS (without excluding value for the stake in Finolex Cables).

- Key industry growth drivers: The plastic pipes industry in India is estimated to post 12-14% CAGR over FY17-22E, reaching ~INR 460bn (source: CRISIL Research Report), largely driven by a) government focus on irrigation (investments to record 12-13% CAGR over FY17-22E– cumulative spending of c.INR 5.7tn across irrigation belts of the country to increase area under irrigation), WSS projects (focus on urban infrastructure under Smart Cities, AMRUT and Swachh Bharat Mission; investments to record 11-12% CAGR over FY17-22E– cumulative spending of c.INR 3.6tn primarily in North and South India) and real estate sector (driven by implementation of RERA, Housing for All by 2022 and housing shortage in country amid increasing urbanisation and finance penetration); b) an expected increase in India's per-capita plastic consumption (from current 11kg; global average of 30kg); c) an increase in the application of CPVC products (which are placed high on qualitative parameters vs UPVC pipes and segment is highly organised given entire polymer demand is met by imports); and d) expected market share shift towards organised players after the GST roll-out.

- Foray into high-margin CPVC segment to aid growth and profitability: As per CRISIL's report, CPVC polymer accounts for a meagre 12% of the INR 250bn Indian Piping Industry, which is expected to rise to 20% by FY22E (industry size estimated to be at INR 460bn by FY22E). CPVC is a premium product category (largely organised) which commands higher realisations and margins. Currently, Astral (market leader), Ashirwad and Supreme are the key players in the segment accounting for 70-75% of the market share. The company is aggressively setting up a parallel distribution channel of non-agri dealers in cities where agri-dealers are not capable of selling CPVC products and expand manufacturing bases to all plants (currently manufacturing out of Pune plant only), to achieve its target of quadrupling CPVC volumes over next 2 years (increasing share from current 5% to more than 10%). Also, Lubrizol India (highly preferred by technicians) aims to garner 50% of the CPVC market share between Ashirvad and Finolex by 2020.

Key Data – FNXP IN	
Current Market Price	INR723
Market cap (bn)	INR89.7/US$1.4
Free Float	42%
Shares in issue (mn)	124.1
Diluted share (mn)	124.1
3-mon avg daily val (mn)	INR38.9/US$0.6
52-week range	756/381
Sensex/Nifty	32,507/10,185
INR/US$	65.0

Price Performance			
%	1M	6M	12M
Absolute	17.6	29.2	58.3
Relative*	17.2	17.0	37.0

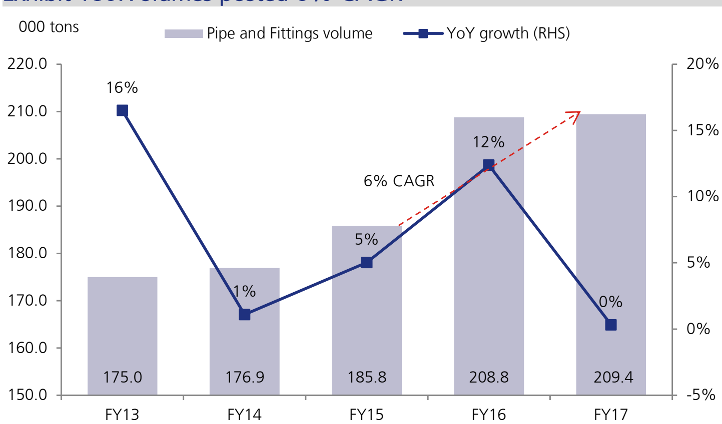
* To the BSE Sensex

Financial Summary					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Net Sales	21,448	24,530	24,761	24,819	26,024
Sales Growth (%)	2.1	14.4	0.9	0.2	4.9
EBITDA	3,587	3,966	2,111	4,075	5,630
EBITDA Margin (%)	16.7	16.2	8.5	16.4	21.6
Adjusted Net Profit	2,141	2,239	623	2,402	3,484
Diluted EPS (INR)	17.3	18.0	5.0	19.4	28.1
Diluted EPS Growth (%)	146.3	4.6	-72.2	285.4	45.0
ROIC (%)	18.4	19.2	7.5	21.5	32.9
ROE (%)	31.0	29.6	7.9	20.4	18.0
P/E (x)	41.9	40.1	143.9	37.3	25.8
P/B (x)	12.4	11.4	11.4	5.7	3.9
EV/EBITDA (x)	27.3	24.4	45.4	22.5	16.1
Dividend Yield (%)	0.8	1.0	0.0	0.3	1.4

Source: Company data, JM Financial. Note: Valuations as of 23/10/2017

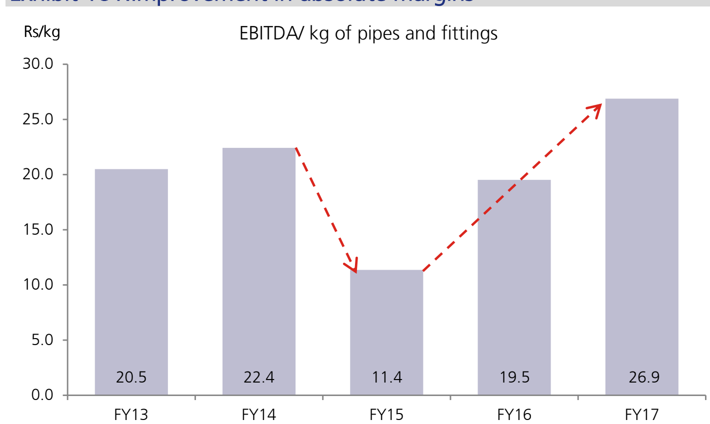
- **Government's focus on farm income and irrigation sector augurs well for FIL:** The irrigation sector is the largest end-use segment for plastic pipes (FIL also derives 70% of the revenue from agri-products), which accounts for c.45% of the industry. Of India's approximately 142mn hectares of cultivated land, a little less than 50% is irrigated, which is one of the biggest reason for lower farm income in India (ratio of income per non-agriculture worker to income per cultivator has always been above 3x since FY84). Resultantly, Niti Ayog estimates need for an **a)** increase in land productivity (agriculture land is declining) by enhancing access to irrigation and technological advancements and **b)** increase in crop intensity i.e. taking multiple short duration crops on same piece of land (poor access to water sources is main reason for low intensity), as key ingredients to double farm income by FY22. While irrigation investments are state matters (85-90%), the Central Government has also laid emphasis on PMKSY (converged various schemes with INR 500bn spending target till FY20) to enhance the area under cultivation. Moreover, as per recent CRISIL report, overall irrigation investments are expected to be at INR 5.7tn over FY18-FY22 compared with INR 3.3tn over the past five years (FY13-FY17); of which c.75% is estimated to be spent on construction activity which will lend support to pipes and fittings industry. FIL, being a market leader in the agri-space, is expected to benefit strongly out of these government initiatives.
- **Recent financial performance improved on higher spreads:** FIL reported strong growth in profitability over FY15-FY17 (over 100% CAGR) mainly due to higher margins (13% improvement in EBITDA margins over FY15-17) led by lower raw material prices amid a stable PVC pricing scenario (PVC-VCM and PVC-EDC spreads recorded c.22%/2% CAGR over FY15-17 respectively). While pipe volumes saw 6% CAGR over FY15-FY17, overall revenue posted 2% CAGR due to lower external sales of PVC resin (FIL believes it will continue to decline as captive consumption is increasing). Resultantly, ROCEs improved by c.23ppts over FY15-FY17 and operating cash flows were at record highs in FY16 and FY17 (recorded higher cash flows collectively in 2 years than cumulative cash flow earned over FY11-FY15). However, profitability declined in 1QFY18 on lower margins due to a 6% decline in PVC prices QoQ, which led to lower realisations for pipes (volume growth was at 8% YoY) along with inventory losses amid GST transition issues. Management is seeing a continuous increase in spreads, which augurs well for future profitability amid a strong expected demand scenario.
- **Key growth strategies:** FIL is focusing on **a)** Expanding footprint: more focus on northern and eastern geographies (contributing 20%/10% to revenue) while expanding distribution network across the country (currently has 800 dealers and 18,000 retailers); **b)** Capacity expansion: increase in installed capacities of PVC pipes and fittings (from existing 280 Ktpa to 450 Ktpa by FY20, including 50 Ktpa of CPVC) to capture the expected increase in demand; **c)** Focus on B2C segment: high captive consumption of PVC resin and increased focus on branding to maintain leadership position in market; and **d)** Cash and carry model: will help keep the balance sheet light (though CPVC products are launched at a credit period of 30 days as FIL is a late entrant in the segment).

Exhibit 180.Volumes posted 6% CAGR



Source: Company, JM Financial

Exhibit 181.Improvement in absolute margins



Source: Company, JM Financial

Financial Tables (Standalone)

Income Statement					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Net Sales	21,448	24,530	24,761	24,819	26,024
Sales Growth	2.1%	14.4%	0.9%	0.2%	4.9%
Other Operating Income	0	0	0	0	0
Total Revenue	**21,448**	**24,530**	**24,761**	**24,819**	**26,024**
Cost of Goods Sold/Op. Exp	14,340	16,760	18,329	16,477	16,096
Personnel Cost	721	717	740	925	1,049
Other Expenses	2,800	3,087	3,582	3,342	3,249
EBITDA	**3,587**	**3,966**	**2,111**	**4,075**	**5,630**
EBITDA Margin	16.7%	16.2%	8.5%	16.4%	21.6%
EBITDA Growth	55.1%	10.6%	-46.8%	93.0%	38.2%
Depn. & Amort.	544	623	587	506	550
EBIT	3,043	3,343	1,524	3,569	5,080
Other Income	334	437	202	396	187
Finance Cost	514	664	704	447	153
PBT before Excep. & Forex	2,862	3,116	1,023	3,519	5,113
Excep. & Forex Inc./Loss(-)	-961	-698	-165	-31	56
PBT	1,902	2,419	858	3,488	5,170
Taxes	540	717	330	1,189	1,648
Extraordinary Inc./Loss(-)	0	0	-50	245	0
Assoc. Profit/Min. Int.(-)	0	0	0	0	0
Reported Net Profit	1,361	1,701	478	2,544	3,522
Adjusted Net Profit	**2,141**	**2,239**	**623**	**2,402**	**3,484**
Net Margin	10.0%	9.1%	2.5%	9.7%	13.4%
Diluted Share Cap. (mn)	124.1	124.1	124.1	124.1	124.1
Diluted EPS (INR)	**17.3**	**18.0**	**5.0**	**19.4**	**28.1**
Diluted EPS Growth	146.3%	4.6%	-72.2%	285.4%	45.0%
Total Dividend + Tax	793	1,016	0	298	1,494
Dividend Per Share (INR)	5.5	7.0	0.0	2.0	10.0

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Shareholders' Fund	7,212	7,897	7,874	15,698	22,914
Share Capital	1,241	1,241	1,241	1,241	1,241
Reserves & Surplus	5,971	6,656	6,633	14,458	21,673
Preference Share Capital	0	0	0	0	0
Minority Interest	0	0	0	0	0
Total Loans	8,395	7,134	6,371	2,115	942
Def. Tax Liab. / Assets (-)	936	1,063	1,108	1,027	909
Total - Equity & Liab.	**16,543**	**16,094**	**15,352**	**18,841**	**24,765**
Net Fixed Assets	9,301	9,377	8,782	8,563	8,769
Gross Fixed Assets	17,710	18,500	18,939	8,965	9,559
Intangible Assets	0	0	0	0	0
Less: Depn. & Amort.	8,915	9,448	10,262	469	1,008
Capital WIP	506	325	104	66	217
Investments	3,596	2,215	1,797	8,172	12,222
Current Assets	7,488	7,770	8,013	6,503	8,128
Inventories	4,828	5,059	5,587	4,472	5,574
Sundry Debtors	387	410	487	176	525
Cash & Bank Balances	90	209	123	104	163
Loans & Advances	2,182	2,092	1,817	1,750	1,865
Other Current Assets	0	0	0	0	0
Current Liab. & Prov.	3,843	3,267	3,239	4,397	4,354
Current Liabilities	1,851	1,114	2,000	2,432	2,275
Provisions & Others	1,992	2,153	1,239	1,965	2,079
Net Current Assets	3,645	4,503	4,774	2,106	3,774
Total – Assets	**16,543**	**16,094**	**15,352**	**18,841**	**24,765**

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Profit before Tax	1,902	2,419	808	3,733	5,170
Depn. & Amort.	544	623	587	506	551
Net Interest Exp. / Inc. (-)	414	530	524	310	48
Inc (-) / Dec in WCap.	-45	-985	491	2,005	-1,531
Others	319	392	103	-201	-144
Taxes Paid	-390	-524	-392	-663	-1,752
Operating Cash Flow	**2,744**	**2,455**	**2,122**	**5,690**	**2,342**
Capex	126	-675	-307	-313	-936
Free Cash Flow	2,870	1,780	1,815	5,377	1,405
Inc (-) / Dec in Investments	438	1,686	442	-573	1,326
Others	55	92	48	113	89
Investing Cash Flow	**619**	**1,103**	**183**	**-772**	**479**
Inc / Dec (-) in Capital	0	0	0	0	0
Dividend + Tax thereon	-433	-789	-981	-291	-1,474
Inc / Dec (-) in Loans	-2,553	-1,984	-832	-4,205	-1,125
Others	-578	-667	-580	-441	-162
Financing Cash Flow	**-3,563**	**-3,439**	**-2,392**	**-4,937**	**-2,761**
Inc / Dec (-) in Cash	**-200**	**119**	**-87**	**-19**	**59**
Opening Cash Balance	291	90	209	123	104
Closing Cash Balance	90	209	122	104	163

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Net Margin	10.0%	9.1%	2.5%	9.7%	13.4%
Asset Turnover (x)	1.2	1.5	1.6	1.5	1.2
Leverage Factor (x)	2.5	2.2	2.0	1.5	1.1
RoE	31.0%	29.6%	7.9%	20.4%	18.0%

Key Ratios					
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
BV/Share (INR)	58.1	63.6	63.5	126.5	184.6
ROIC	18.4%	19.2%	7.5%	21.5%	32.9%
ROE	31.0%	29.6%	7.9%	20.4%	18.0%
Net Debt/Equity (x)	1.2	0.9	0.8	0.1	0.0
P/E (x)	41.9	40.1	143.9	37.3	25.8
P/B (x)	12.4	11.4	11.4	5.7	3.9
EV/EBITDA (x)	27.3	24.4	45.4	22.5	16.1
EV/Sales (x)	4.6	3.9	3.9	3.7	3.5
Debtor days	7	6	7	3	7
Inventory days	82	75	82	66	78
Creditor days	38	20	32	43	41

Source: Company, JM Financial

KCP Ltd | Not Rated

Key beneficiary of cement demand in AP/Telangana

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KCP Ltd is a diversified business group with interests across segments such as cement, sugar, engineering, etc. Cement contributes c.80% to the standalone company's revenues. KCP operates two cement plants in Andhra Pradesh, with cumulative capacity of 2.66MTPA, expected to go up to 4.32MTPA by mid-FY19. It currently operates at 67% utilisation in existing plants, providing significant headroom for volume growth, expected on the back of exposure to the region with high demand growth. KCP also operates in power, engineering, hotels, RMC and brick manufacturing businesses in the standalone entity. It owns a 67% stake in the KCP Vietnam Industries Ltd., which manufactures sugar in Vietnam, with crushing capacity of 9,000TCD, expected to go up to 11,000TCD by FY18 (capacity doubled in 4 years). Its JV with Fives Group of France (40% held by KCP) provides turnkey sugar plants and cogeneration plants.

- **Exposure to high-growth markets:** Cement demand in Andhra Pradesh and Telangana has been growing rapidly on account of infrastructure (irrigation, roads, power projects, etc.) and housing projects by the Telangana government. Additionally, Amravati in Andhra Pradesh is being developed as a new capital. Industry estimates, cement demand in AP/Telangana is expected to post 20% CAGR over the next few years. KCP's cement plants – in Macherla (0.8MTPA) and Muktyala (1.86MTPA) – are in the vicinity of these demand centres and are would be key beneficiaries of the demand uptick.

- **Capacity expansion at a significantly lower rate:** The company is in the process of expanding its capacity at the Muktyala plant from 1.86MTPA to 3.52MTPA; this is expected to come online by mid-FY19. The brownfield expansion is being carried out at USD45/t, significantly lower than the benchmark (USD90/t for brownfield expansion). With the expansion in the pipeline and currently capacity utilisation at 66%, the company is well placed to tap the demand uptick in the region.

- **Rapidly growing sugar business:** The company holds a c.67% stake in KCP Vietnam Industries Ltd, which has 9,000TCD cane crushing capacity in Vietnam (expected to go up to 11,000TCD crushing capacity by FY18). Additionally, t

- he company has 30MW of co-generation capacity. Crushing capacity will almost be doubled from 6,000TCD to 11,000TCD in 4 years.

- **Balance sheet to be under pressure on expansion:** The company has tied up loans to the extent of 75% of the total cost for the expansion (total cost for the expansion project is estimated at INR 5bn). Net debt-to-equity and net debt-to-EBITDA stood at 0.94x and 2.77x, respectively, in FY17 on a standalone basis. Debt taken over by the company for capacity expansion would be one of the key risks.

- **Valuations:** KCP Ltd is currently trading at 8.7x EVE on FY17 consolidated EBITDA and at USD70/t on FY19E EV/t basis.

Key Data – KCPL IN	
Current Market Price	INR121
Market cap (bn)	INR15.6/$0.2
Free Float	52.8%
Shares in issue (mn)	128.92
Diluted share (mn)	128.92
3-mon avg daily val (mn)	INR31.3/US$0.5
52-week range	138/79
Sensex/Nifty	32,433/10,167
INR/US$	64.9

Price Performance			
%	1M	6M	12M
Absolute	-2.7	1.1	13.0
Relative*	-3.5	-9.0	-4.3

* To the BSE Sensex

Financial Summary					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Net Sales	11,361	10,606	11,877	12,960	12,822
Sales Growth	11.8	-6.7	12.0	9.1	-1.1
EBITDA	1,062	1,269	1,656	2,631	2,288
EBITDA Margin	9.3	12.0	13.9	20.3	17.8
Adjusted Net Profit	652	345	504	934	728
Diluted EPS (INR)	4.9	2.5	3.9	7.2	5.6
Diluted EPS Growth		-48%	54%	85%	-22%
ROIC	12.8	10.4	11.0	14.7	11.6
ROE	13.7	6.6	9.8	16.3	11.2
P/E (x)	22.6	45.1	30.1	16.7	20.9
P/B (x)	3.1	3.1	2.9	2.5	2.3
EV/EBITDA (x)	16.7	15.7	11.5	7.6	8.7

Source: Company data, JM Financial. Note: Valuations as of 23/10/2017

Financial Tables (Consolidated)

Income Statement					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Net Sales	11,361	10,606	11,877	12,960	12,822
Sales Growth	11.8	-6.7	12.0	9.1	-1.1
Other Operating Income					
Total Revenue	**11,361**	**10,606**	**11,877**	**12,960**	**12,822**
Cost of Goods Sold/Op. Exp	6,712	5,888	6,913	7,060	6,937
Personnel Cost	651	696	713	882	1,006
Other Expenses	2,936	2,753	2,594	2,386	2,592
EBITDA	**1,062**	**1,269**	**1,656**	**2,631**	**2,288**
EBITDA Margin	9.3	12.0	13.9	20.3	17.8
EBITDA Growth	-44.6	19.5	30.5	58.9	-13.0
Depn. & Amort.	810	208	146	48	107
EBIT	444	471	482	483	647
Other Income	1,427	1,005	1,320	2,196	1,748
Finance Cost	-397	-463	-515	-523	-497
PBT before Excep. & Forex	1,030	542	805	1,672	1,251
Excep. & Forex Inc./Loss(-)	0	0	0	0	0
PBT	1,030	542	805	1,672	1,251
Taxes	180	43	130	498	313
Extraordinary Inc./Loss(-)	39	1	15	2	19
Assoc. Profit/Min. Int.(-)	198	154	171	241	211
Reported Net Profit	691	346	519	936	746
Adjusted Net Profit	**652**	**345**	**504**	**934**	**728**
Net Margin	5.7	3.2	4.2	7.2	5.7
Diluted Share Cap. (mn)	128.98	128.98	128.98	128.98	128.98
Diluted EPS (INR)	**4.9**	**2.5**	**3.9**	**7.2**	**5.6**
Diluted EPS Growth		-48%	54%	85%	-22%
Total Dividend + Tax	3,841	3,842	4,752	6,788	10,182
Dividend Per Share (INR)	17.0	17.0	21.0	30.0	45.0

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Shareholders' Fund	84,211	86,415	90,746	95,881	100,918
Share Capital	129	129	129	129	129
Reserves & Surplus	4,757	4,843	5,190	6,023	6,690
Preference Share Capital	150	80	0	0	0
Minority Interest	572	798	953	1,217	1,397
Total Loans	3,270	4,673	4,508	4,793	5,193
Def. Tax Liab. / Assets (-)	516	562	648	867	1,005
Total - Equity & Liab.	**9,394**	**11,084**	**11,427**	**13,029**	**14,414**
Net Fixed Assets	5,684	5,698	6,440	9,732	9,908
Gross Fixed Assets	8,736	9,277	10,417	9,732	9,908
Intangible Assets	0	0	0	0	0
Less: Depn. & Amort.	2,559	3,052	3,580	3,977	0
Capital WIP	1,029	1,753	1,214	0	0
Investments	48	48	48	48	48
Current Assets	5,846	6,029	6,265	6,172	7,510
Inventories	2,004	2,669	2,306	2,199	2,800
Sundry Debtors	864	939	660	1,413	1,035
Cash & Bank Balances	1,077	318	1,011	450	854
Loans & Advances	1,342	1,561	1,747	1,340	1,728
Other Current Assets	558	541	542	770	1,095
Current Liab. & Prov.	3,212	2,444	2,540	2,923	3,053
Current Liabilities	754	825	669	722	901
Provisions & Others	2,458	1,619	1,871	2,201	2,151
Net Current Assets	2,634	3,585	3,725	3,249	4,458
Total – Assets	**9,394**	**11,084**	**11,427**	**13,029**	**14,414**

Source: Company, JM Financial

Cash Flow Statement					(INR mn)
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
Profit before Tax	1,030	542	805	1,672	1,251
Depn. & Amort.	493	527	398	-3,977	0
Net Interest Exp. / Inc. (-)	-397	-463	-515	-523	-497
Inc (-) / Dec in WCap.	1,728	-1,508	739	-263	-93
Others	572	226	155	264	180
Taxes Paid	180	43	130	498	313
Operating Cash Flow	**3,485**	**-409**	**1,810**	**-3,041**	**833**
Capex	-1,049	-1,265	-602	1,900	-176
Free Cash Flow	2,435	-1,674	1,209	-1,141	657
Inc (-) / Dec in Investments	0	0	0	0	0
Others	-546	-202	-187	178	-712
Investing Cash Flow	**-1,595**	**-1,467**	**-788**	**2,078**	**-888**
Inc / Dec (-) in Capital	-50	-70	-80	0	0
Dividend + Tax thereon	-142	-142	-142	-142	-285
Inc / Dec (-) in Loans	-264	1,403	-164	285	400
Others	-500	-143	-23	259	344
Financing Cash Flow	**-956**	**1,048**	**-410**	**402**	**459**
Inc / Dec (-) in Cash	934	-828	612	-561	404
Opening Cash Balance	498	1,077	318	1,011	450
Closing Cash Balance	1,431	249	930	450	854

Source: Company, JM Financial

Key Ratios					
Y/E March	FY13A	FY14A	FY15A	FY16A	FY17A
BV/Share (INR)	39.0	39.2	41.2	47.7	52.9
ROIC	12.8	10.4	11.0	14.7	11.6
ROE	13.7	6.6	9.8	16.3	11.2
Net Debt/Equity (x)	0.4	0.9	0.6	0.7	0.6
P/E (x)	22.6	45.1	30.1	16.7	20.9
P/B (x)	3.1	3.1	2.9	2.5	2.3
EV/EBITDA (x)	16.7	15.7	11.5	7.6	8.7
EV/Sales (x)	1.6	1.9	1.6	1.5	1.6
Debtor days	28	32	20	40	29
Inventory days	64	92	71	62	80
Creditor days	175	151	134	151	161

Source: Company, JM Financial

M&M Financial | BUY

JM FINANCIAL

Asset quality improvement to boost RoA going forward

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We believe an improved crop outlook, increased budget allocation and a good monsoon for 2 consecutive years will boost farm income and accelerate recoveries for MMFS. i) Management expects asset quality to improve significantly due to a 5-6% improvement in collection efficiency YoY and a reduction in disposable losses on account of lower repossessions. 2) With incremental NPLs coming down, focus has now shifted to accelerate its growth; the company expects 15%+ growth in FY18 (vs. 14% in FY17) driven by growth in segments such as pre-owned vehicles, tractors and CEs. 3) Management expects RoA to improve to 2% at end-FY18 (vs. 1.1% in FY17) on a like-to-like basis (120DPD). 4) Management expects the housing subsidiary to continue its growth momentum of 40-50% and its book size to increase to INR 100bn (vs. INR 48bn) by FY20. We believe MMFS is well-placed to benefit from rural recovery driven by i) improvement in higher farm related cash flows, ii) an increase in government spending and iii) two consecutive good monsoons. We maintain BUY with a Mar'19 TP of INR 500.

- **Best placed to benefit from rural recovery:** With 80-90% of MMFS branches in rural regions, the company will be a direct beneficiary of any pick-up in the rural economy. Management expects 15%+ growth in FY18 driven by **i)** good monsoons, **ii)** increased govt. spending in states due for elections next year, **iii)** an increase in direct marketing initiatives, which currently account for 20-25% of business sourcing, **iv)** acceleration of growth in the pre-owned vehicle segment and **v)** an increase in penetration - targets to enter another 0.1mn villages (from 0.33mn as of FY17) over the next 3 years. We expect AUM CAGR of 17% over FY17-FY20.
- **Asset quality to significantly improve:** The migration from a geography-centric collection mechanism to bucket-specific collections has helped the company, leading to a 5-6% improvement in collections efficiency YoY. This, coupled with lower incremental slippages, an improvement in customer sentiments due to a good monsoon and a reduction in disposable losses due to lower repossessions would lead to lower GNPL despite migrating to 90DPD. Therefore, with higher growth and improvement in collection efficiency, management expects RoA to improve to 2% by FY18 (vs. 1.1% in FY17) on a like-to-like basis (120DPD). While we expect higher recovery in FY18, credit costs could remain elevated due to migration to 90DPD.
- **Subsidiaries to add significant value:** **a)** Housing Finance - portfolio has posted a 56% CAGR in the past 3 years and its AUM proportion to the consolidated AUM has increased to 7% (vs. 4% in FY14). The company has now also started focusing on higher ticket size loans; management believes growth momentum will continue and expects 50% growth over the next 2 years. **b)** AMC Business - will focus on rural and semi-urban markets and group employees leveraging further on parent M&M relationship to sell these products.
- **On track to deliver improved profitability:** We expect earnings CAGR of c.60% (on a lower base) over FY17-FY20 and with RoA improving to 2.4% and RoE of 15% by FY20. We are factoring in a dilution of 9.4% in FY18E in line with the INR 22.5bn fund raise. We value MMFS standalone at 2.3x Mar'20 BV, implying value of INR442. We value Mahindra Rural Housing Finance (MRHF) at INR34 per share, and Mahindra Insurance Brokers Ltd. (MIBL) at INR22 per share, implying a Mar'19 TP of INR500.

Recommendation and Price Target	
Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	500
Upside/(Downside)	22.3%
Previous Price Target	471
Change	6.3%

Key Data – MMFS IN	
Current Market Price	INR409
Market cap (bn)	INR232.5/US$3.6
Free Float	44%
Shares in issue (mn)	564.1
Diluted share (mn)	564.1
3-mon avg daily val (mn)	INR990.4/US$15.3
52-week range	456/244
Sensex/Nifty	33,043/10,295
INR/US$	64.9

Price Performance

%	1M	6M	12M
Absolute	1.3	20.1	14.8
Relative*	-3.1	8.9	-2.4

* To the BSE Sensex

Financial Summary (INR mn)

Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Net Profit	6,726	4,002	9,201	12,899	16,134
Net Profit (YoY) (%)	-19.1%	-40.5%	129.9%	40.2%	25.1%
Assets (YoY) (%)	12.8%	16.2%	16.0%	16.4%	17.1%
ROA (%)	1.8%	0.9%	1.9%	2.2%	2.4%
ROE (%)	11.5%	6.4%	11.6%	13.2%	14.9%
EPS	11.9	7.1	14.9	20.9	26.1
EPS (YoY) (%)	-19.2%	-40.5%	110.2%	40.2%	25.1%
PE (x)	**34.3**	**57.7**	**27.5**	**19.6**	**15.7**
BV	107	114	151	166	184
BV (YoY) (%)	7.2%	6.3%	32.4%	9.7%	11.0%
P/BV (x)	**3.81**	**3.58**	**2.70**	**2.47**	**2.22**

Source: Company data, JM Financial. Note: Valuations as of 25/Oct/2017

Financial Tables (Standalone)

Profit & Loss					(INR mn)
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Net Interest Income	32,246	33,299	41,492	50,261	59,353
Profit on Investments	11	10	750	130	150
Exchange Income	0	0	0	0	0
Fee & Other Income	402	492	565	650	748
Non-Interest Income	412	502	1,315	780	898
Total Income	32,658	33,801	42,808	51,041	60,250
Operating Expenses	11,781	14,509	17,064	19,557	22,375
Pre-provisioning Profits	20,877	19,292	25,744	31,484	37,875
Loan-Loss Provisions	10,495	13,091	11,588	11,639	13,244
Provisions on Investments	0	0	0	0	0
Others Provisions	0	0	0	0	0
Total Provisions	10,495	13,091	11,588	11,639	13,244
PBT	10,382	6,201	14,156	19,844	24,631
Tax	3,656	2,198	4,955	6,946	8,498
PAT (Pre-Extraordinaries)	6,726	4,002	9,201	12,899	16,134
Extra ordinaries (Net of Tax)	0	0	0	0	0
Reported Profits	6,726	4,002	9,201	12,899	16,134
Dividend paid	2,713	1,610	2,760	3,870	4,840
Retained Profits	4,013	2,392	6,441	9,029	11,293

Source: Company, JM Financial

Balance Sheet					(INR mn)
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Equity Capital	1,129	1,130	1,236	1,236	1,236
Reserves & Surplus	59,508	63,396	92,214	101,243	112,537
Deposits	0	0	0	0	0
Borrowings	294,523	346,704	383,455	452,476	535,958
Other Liabilities	40,391	48,376	56,098	65,274	76,417
Total Liabilities	395,795	459,852	533,253	620,486	726,409
Investments	14,833	18,895	24,967	29,335	34,024
Net Advances	366,578	425,234	489,552	569,613	667,130
Cash & Equivalents	6,221	5,781	7,343	8,544	10,007
Fixed Assets	1,135	1,120	1,299	1,511	1,769
Other Assets	0	0	0	0	0
Total Assets	395,795	459,852	533,253	620,486	726,409

Source: Company, JM Financial

Key Ratios					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Growth (YoY) (%)					
Deposits	0.0%	0.0%	0.0%	0.0%	0.0%
Advances	11.3%	16.0%	15.1%	16.4%	17.1%
Total Assets	12.8%	16.2%	16.0%	16.4%	17.1%
NII	5.8%	3.3%	24.6%	21.1%	18.1%
Non-interest Income	2.5%	21.7%	162.0%	-40.7%	15.1%
Operating Expenses	17.0%	23.2%	17.6%	14.6%	14.4%
Operating Profits	0.3%	-7.6%	33.4%	22.3%	20.3%
Core Operating profit	-13.3%	-39.9%	125.4%	40.2%	22.3%
Provisions	26.8%	24.7%	-11.5%	0.4%	13.8%
Reported PAT	-19.1%	-40.5%	129.9%	40.2%	25.1%
Yields / Margins (%)					
Interest Spread	6.54%	5.86%	6.38%	6.67%	6.86%
NIM	8.80%	7.95%	8.54%	8.90%	9.00%
Profitability (%)					
Non-IR to Income	1.3%	1.5%	3.1%	1.5%	1.5%
Cost to Income	36.1%	42.9%	39.9%	38.3%	37.1%
ROA	1.80%	0.94%	1.85%	2.24%	2.40%
ROE	11.5%	6.4%	11.6%	13.2%	14.9%
Assets Quality (%)					
Slippages	0.00%	0.00%	0.00%	0.00%	0.00%
Gross NPA	8.34%	9.27%	9.36%	8.80%	8.22%
Net NPAs	3.37%	3.76%	4.81%	4.61%	4.29%
Provision Coverage	61.7%	61.8%	51.0%	50.0%	50.0%
Specific LLP	0.00%	0.00%	0.00%	0.00%	0.00%
Net NPAs / Networth	20.4%	24.8%	25.2%	25.6%	25.1%
Capital Adequacy (%)					
Tier I	14.59%	12.80%	17.14%	16.19%	15.38%
CAR	17.29%	15.20%	19.67%	18.68%	17.83%

Source: Company, JM Financial

Dupont Analysis					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
NII / Assets	8.64%	7.78%	8.36%	8.71%	8.81%
Other Income / Assets	0.11%	0.12%	0.26%	0.14%	0.13%
Total Income / Assets	8.75%	7.90%	8.62%	8.85%	8.95%
Cost / Assets	3.16%	3.39%	3.44%	3.39%	3.32%
PBP / Assets	5.59%	4.51%	5.18%	5.46%	5.62%
Provisions / Assets	2.81%	3.06%	2.33%	2.02%	1.97%
PBT / Assets	2.78%	1.45%	2.85%	3.44%	3.66%
Tax rate	35.2%	35.5%	35.0%	35.0%	34.5%
ROA	1.80%	0.94%	1.85%	2.24%	2.40%
RoRWAs	1.79%	0.90%	1.80%	2.24%	2.40%
Leverage	6.5	7.1	5.7	6.1	6.4
ROE	11.5%	6.4%	11.6%	13.2%	14.9%

Source: Company, JM Financial

Valuations					
Y/E March	FY16A	FY17A	FY18E	FY19E	FY20E
Shares in Issue	564.6	565.0	617.9	617.9	617.9
EPS (INR)	11.9	7.1	14.9	20.9	26.1
EPS (YoY) (%)	-19.2%	-40.5%	110.2%	40.2%	25.1%
PER (x)	34.3	57.7	27.5	19.6	15.7
BV (INR)	107	114	151	166	184
BV (YoY) (%)	7.2%	6.3%	32.4%	9.7%	11.0%
ABV (INR)	156	156	128	166	184
ABV (YoY) (%)	8.7%	0.0%	-18.2%	29.8%	11.0%
P/BV (x)	3.81	3.58	2.70	2.47	2.22
P/ABV (x)	2.62	2.62	3.20	2.47	2.22
DPS (INR)	4.8	2.8	4.5	6.3	7.8
Div. yield (%)	1.2%	0.7%	1.1%	1.5%	1.9%

Source: Company, JM Financial

V-Mart Retail | Not Rated

Consistent execution, value focus to aid performance

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V-Mart is a chain of 149 fashion retail stores primarily located in mid-tier cities and focused on apparel/non-apparel fashion products – c.65% of stores are in UP and Bihar, wherein consumers are largely dependent on agriculture and government for their incomes. Its portfolio consists of low-price products and is targeted at lower income rural/mid-tier city consumers. The company has delivered strong results in recent times (c.40% revenue growth in the past two quarters while profits have nearly tripled), which is also reflected in its share price performance, which has grown c.2.8x over the past 12 months. The company's strategy to target value conscious consumers by delivering fashion products at low prices places it well to capitalise on the attractive demand opportunity from rural households. While these structural factors should aid financial performance over the longer term, a near-normal monsoon in FY18 should also help drive recovery in rural demand, which could help it maintain a double-digit LTL growth. Consensus is currently forecasting 25%/32% revenue/EBITDA CAGR (FY17-19E) and it is presently quoting c.18x FY19 on EV/EBITDA despite the recent strong run-up. Hence, we continue to remain positive on the stock.

- **Growing rural incomes and focus on value fashion to drive growth:** V-mart's stores are located in mid-tier cities wherein the customers are rather price conscious and buying behaviour is primarily determined by rural incomes. It has high exposure to lower price apparel (average selling price of INR 334 for FY17) with complete focus on the value fashion segment. Currently, value fashion as a category is recording healthy growth rates due to consumer preferences for fast fashion. Given strong growth opportunities in this category and an improved scenario for growth in rural incomes, V-Mart could maintain its recent strong growth trends over the next few years. It is interesting to note that in good times such as FY11-FY15, the company posted EBITDA CAGR of 35%. While revenue growth trends are expected to remain healthy, there also remains good scope for margin expansion which should further aid earnings growth (V-Mart clocked 8.2% EBITDA margin in FY17 vs 10-11% in FY12-FY13).

- **Good cash flow generation potential, ability to drive high return ratios increases the business model's attractiveness:** V-Mart's business model has a capability to deliver a healthy mid-to-high teens ROCE (post-tax) and ROE (FY15 ROE: 20.5%, ROCE: 18.6%) The company has delivered 15-16% ROE/ROCE in FY17 (sharp improvement over 12-13% ROE/ROCE in FY16) aided by margin improvement and working capital controls. Continued strong operating performance should help achieve 20%+ ROE as seen in FY12. It has also managed working capital quite efficiently which declined from 18% in FY14 to c.10% in FY17 and has helped deliver c.170% growth in FCF in FY17. Valuations at c.18x FY19 on EV/EBITDA (consensus expectations) also appear reasonable relative to the growth opportunity, in our view.

Key Data – VMART IN	
Current Market Price	INR1394
Market cap (bn)	INR25.2/$0.4
Free Float	39.3%
Shares in issue (mn)	18.1
Diluted share (mn)	18.1
3-mon avg daily val (mn)	INR81.8/US$1.3
52-week range	1587/443
Sensex/Nifty	32,607/10,208
INR/US$	65.1

Price Performance

%	1M	6M	12M
Absolute	-3.1	51.7	164.4
Relative*	-5.2	41.8	148.7

* To the BSE Sensex

Exhibit 1: Financial Summary (INR mn)

Y/E March	FY13	FY14	FY15	FY16	FY17
Net sales	3,835	5,750	7,202	8,094	10,017
Sales growth (%)	36.0	49.9	25.3	12.4	23.8
EBITDA	392	523	636	622	826
EBITDA (%)	10.2	9.1	8.8	7.7	8.2
Adjusted net profit	180	252	374	276	395
EPS (INR)	10.0	14.0	20.7	15.3	21.9
EPS growth (%)	-29.6	39.7	48.0	-26.2	43.0
ROCE (%)	16.8	14.8	18.1	12.2	15.0
ROE (%)	17.8	15.8	19.9	12.7	15.8
PE (x)	NA	NA	69.9	94.7	66.2
Price/Book value (x)	17.6	15.3	12.7	11.3	9.7
EV/EBITDA (x)	65.9	49.9	41.1	42.0	31.3

Source: Company data, JM Financial. Note: Valuations as of 23/10/2017

Financial Tables

Profit & Loss Statement					(INR mn)
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**
Net sales	**3,835**	**5,750**	**7,202**	**8,094**	**10,017**
Growth (%)	36.0	49.9	25.3	12.4	23.8
Other operational income					
Raw material (or COGS)	2,613	3,969	5,141	5,712	7,028
Personnel cost	250	383	489	623	777
Other expenses (or SG&A)	581	875	936	1,138	1,387
EBITDA	**392**	**523**	**636**	**622**	**826**
EBITDA (%)	10.2	9.1	8.8	7.7	8.2
Growth (%)	38.7	33.5	21.7	-2.3	32.9
Other non-op. income	8	7	22	10	22
Depreciation and amort.	76	109	46	190	220
EBIT	324	421	612	442	628
Add: Net interest income	-58	-42	-42	-31	-35
Pre tax profit	266	378	571	411	593
Taxes	86	127	186	142	206
Add: Extraordinary items	0	0	-11	7	9
Less: Minority interest	0	0	0	0	0
Reported net profit	180	252	374	276	395
Adjusted net profit	**180**	**252**	**374**	**276**	**395**
Margin (%)	4.7	4.4	5.2	3.4	3.9
Diluted share cap. (mn)	18	18	18	18	18
Diluted EPS (Rs.)	**10.0**	**14.0**	**20.7**	**15.3**	**21.9**
Growth (%)	-29.6	39.7	48.0	-26.2	43.0
Total Dividend + Tax	15	27	33	27	27

Balance Sheet					(INR mn)
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**
Share capital	180	180	180	181	181
Other capital	0	0	0	0	0
Reserves and surplus	1,297	1,522	1,869	2,127	2,523
Networth	1,477	1,702	2,049	2,307	2,703
Total loans	354	438	306	270	355
Minority interest	0	0	0	0	0
Sources of funds	**1,831**	**2,139**	**2,355**	**2,577**	**3,058**
Intangible assets	0	0	0	0	0
Fixed assets	765	1,096	1,421	1,750	2,158
Less: Depn. and amort.	291	397	441	631	851
Net block	474	700	981	1,119	1,307
Capital WIP	13	10	7	7	7
Investments	406	342	218	324	676
Def tax assets/- liability	7	22	6	42	70
Current assets	1,396	1,862	2,077	2,340	2,929
Inventories	1,108	1,677	1,832	2,044	2,692
Sundry debtors	0	0	0	0	0
Cash & bank balances	158	23	34	43	29
Other current assets	0	0	0	0	0
Loans & advances	131	162	212	253	208
Current liabilities & prov.	457	766	870	1,255	1,932
Current liabilities	440	720	817	1,173	1,857
Provisions and others	17	46	53	82	75
Net current assets	940	1,096	1,207	1,085	997
Others (net)	-10	-31	-64	0	0
Application of funds	**1,831**	**2,139**	**2,355**	**2,577**	**3,058**

Cash Flow statement					(INR mn)
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**
Reported net profit	180	252	374	276	395
Depreciation and amort.	76	106	44	190	220
-Inc/dec in working cap.	-150	-289	-58	144	36
Others	0	0	0	0	0
Cash from operations (a)	**106**	**68**	**360**	**610**	**652**
-Inc/dec in investments	-406	64	124	-106	-353
Capex	-220	-328	-322	-329	-408
Others	-41	-2	-43	-12	38
Cash flow from inv. (b)	**-667**	**-266**	**-240**	**-446**	**-723**
Inc/-dec in capital	770	0	7	9	28
Dividend+Tax thereon	-15	-27	-33	-27	-27
Inc/-dec in loans	-57	83	-132	-36	85
Others	2	6	49	-100	-28
Financial cash flow (c)	**699**	**63**	**-109**	**-155**	**58**
Inc/-dec in cash (a+b+c)	138	-135	10	9	-13
Opening cash balance	19	158	23	34	43
Closing cash balance	158	23	34	43	29

Key Ratios					
Y/E March	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**
BV/Share (Rs)	82.2	94.7	113.7	127.7	149.6
ROCE (%)	16.8	14.8	18.1	12.2	15.0
ROE (%)	17.8	15.8	19.9	12.7	15.8
Net Debt/equity ratio (x)	-0.1	0.0	0.0	0.0	-0.1
Valuation ratios (x)					
PER	NA	NA	69.9	94.7	66.2
PBV	17.6	15.3	12.7	11.3	9.7
EV/EBITDA	65.9	49.9	41.1	42.0	31.3
EV/Sales	6.7	4.5	3.6	3.2	2.6
Turnover ratios (no.)					
Debtor days	0	0	0	0	0
Inventory days	105	106	93	92	98
Creditor days	0	0	0	0	0

Annexure I

Agriculture credit outs-standing per states (from scheduled commercial banks)

Exhibit 182.Scheduled commercial banks' credit outstanding (INR 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 (INR bn)	SCB agri-credit as % of total credit outstanding as % of state's total credit outstanding	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, SCB: Scheduled Commercial banks (excluding co-operative banks)

Exhibit 183.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 –INR (for small farmer) (less than 5 acre)	Average debt across all (INR)
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

Annexure II Crop economics

Exhibit 184. Per acre farn economics of Rice

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	13.5	14.5	14.9	14.6	14.4	14.5	15.4	15.2
Realization/Quintal	INR/Quintal	1,030	1,110	1,280	1,345	1,400	1,450	1,510	1,590
By-product	INR/Acre	1,231	1,463	1,610	1,764	2,046	1,996	2,069	2,069
Total Realization	**INR/Acre**	**15,162**	**17,508**	**20,639**	**21,424**	**22,268**	**23,015**	**25,299**	**26,285**
Human Labour	INR/Acre	3,081	3,296	3,629	3,718	4,262	4,626	5,039	5,341
Machine Labour	INR/Acre	1,256	1,364	1,509	1,623	1,910	2,122	2,372	2,609
Animal Labour	INR/Acre	649	840	833	972	885	965	1,003	1,055
Seeds	INR/Acre	649	697	744	823	933	910	943	932
Fertilizers & manure	INR/Acre	1,112	1,419	1,757	1,727	1,939	1,980	1,972	1,984
Pesticides & Insecticides	INR/Acre	246	296	324	335	383	389	427	469
Water & Electricity	INR/Acre	397	480	567	531	895	1,121	1,233	1,418
Working Capital	INR/Acre	231	262	293	304	351	342	355	351
Miscellaneous	INR/Acre	7	6	5	5	27	26	27	27
Total Cost	**INR/Acre**	**7,629**	**8,660**	**9,661**	**10,037**	**11,584**	**12,481**	**13,370**	**14,186**
Total Profit	**INR/Acre**	**7,533**	**8,848**	**10,978**	**11,387**	**10,684**	**10,534**	**11,929**	**12,099**

Source: JM Financial<CACP

Exhibit 185. Per acre farm economics of Wheat

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	12.1	12.9	12.6	12.7	11.1	12.3	12.9	13.2
Realization/Quintal	INR/Quintal	1,120	1,285	1,350	1,400	1,450	1,525	1,625	1,735
By-product	INR/Acre	2,958	3,341	3,683	4,321	3,947	3,947	3,947	3,947
Total Realization	**INR/Acre**	**16,504**	**19,863**	**20,709**	**22,142**	**20,083**	**22,671**	**24,971**	**26,843**
Human Labour	INR/Acre	986	1,155	1,242	1,384	1,419	1,555	1,676	1,808
Machine Labour	INR/Acre	1,894	2,081	2,346	2,571	2,641	2,872	3,114	3,344
Animal Labour	INR/Acre	234	167	195	204	220	221	238	250
Seeds	INR/Acre	853	871	992	1,117	1,178	1,278	1,408	1,536
Fertilizers & manure	INR/Acre	1,012	1,360	1,634	1,634	1,709	1,962	2,155	2,313
Pesticides & Insecticides	INR/Acre	107	110	135	141	126	132	132	132
Water & Electricity	INR/Acre	1,040	1,261	1,252	1,248	1,394	1,505	1,505	1,578
Working Capital	INR/Acre	192	219	244	259	272	297	320	342
Miscellaneous	INR/Acre	7	5	3	2	5	5	6	7
Total Cost	**INR/Acre**	**6,325**	**7,229**	**8,043**	**8,563**	**8,964**	**9,827**	**10,553**	**11,309**
Total Profit	**INR/Acre**	**10,178**	**12,634**	**12,666**	**13,579**	**11,120**	**12,845**	**14,417**	**15,534**

Source: JM Financial, CACP

Exhibit 186. Per acre farm economics of Arhar (Pulse)

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	2.7	2.7	3.1	3.3	2.9	2.6	3.3	3.2
Realization/Quintal	INR/Quintal	3,000	3,200	3,850	4,300	4,350	4,625	5,050	5,450
By-product	INR/Acre	624	922	937	1,226	900	900	900	900
Total Realization	**INR/Acre**	**8,579**	**9,499**	**13,027**	**15,372**	**13,724**	12,991	17,739	18,165
Human Labour	INR/Acre	2,360	2,224	2,665	2,669	2,548	2,765	3,012	3,272
Machine Labour	INR/Acre	832	881	1,212	1,629	1,704	1,893	2,116	2,370
Animal Labour	INR/Acre	1,084	1,184	1,303	1,323	1,365	1,489	1,548	1,629
Seeds	INR/Acre	427	422	494	524	477	523	575	638
Fertilizers & manure	INR/Acre	871	688	1,131	1,136	1,174	1,356	1,525	1,672
Pesticides & Insecticides	INR/Acre	549	563	810	907	976	1,093	1,200	1,319
Water & Electricity	INR/Acre	75	130	134	62	181	227	250	311
Working Capital	INR/Acre	194	191	242	258	264	294	325	358
Miscellaneous	INR/Acre	3	7	5	3	37	77	181	494
Total Cost	**INR/Acre**	**6,394**	**6,290**	**7,996**	**8,510**	**8,727**	**9,716**	**10,732**	**12,062**
Total Profit	**INR/Acre**	**2,185**	**3,209**	**5,031**	**6,861**	**4,997**	**3,274**	**7,007**	**6,102**

Source: JM Financial, CACP

Exhibit 187. Per acre farm economics of Cotton

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	9.4	9.7	9.7	10.7	10.3	9.9	10.0	9.5
Realization/Quintal	INR/Quintal	3,000	3,300	3,900	4,000	4,050	4,100	4,160	4,320
By-product	INR/Acre	454	508	585	712	788	769	799	816
Total Realization	**INR/Acre**	**28,730**	**32,407**	**38,409**	**43,428**	**42,569**	**41,535**	**42,297**	**41,756**
Human Labour	INR/Acre	3,873	4,593	5,250	5,674	5,636	6,204	6,698	7,124
Machine Labour	INR/Acre	788	1,100	1,288	1,461	1,832	2,270	2,722	3,285
Animal Labour	INR/Acre	1,392	1,296	1,601	1,728	1,695	1,791	1,948	2,048
Seeds	INR/Acre	1,070	1,456	1,557	1,400	1,547	1,715	1,793	1,864
Fertilizers & manure	INR/Acre	1,727	2,281	3,028	3,341	3,249	3,836	4,397	4,839
Pesticides & Insecticides	INR/Acre	793	974	986	1,018	1,130	1,356	1,423	1,527
Water & Electricity	INR/Acre	476	661	686	668	960	998	1,048	1,101
Working Capital	INR/Acre	313	387	450	478	504	491	509	503
Miscellaneous	INR/Acre	7	11	11	11	69	67	70	69
Total Cost	**INR/Acre**	**10,440**	**12,759**	**14,857**	**15,778**	**16,621**	**18,728**	**20,609**	**22,360**
Total Profit	**INR/Acre**	**18,291**	**19,648**	**23,552**	**27,649**	**25,948**	**22,807**	**21,689**	**19,396**

Source: JM Financial<CACP

Exhibit 188. Per acre farm economics of Sugarcane

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	284	290	276	285	289	286	277	291
Realization/Quintal	INR/Quintal	139	145	170	210	220	230	230	239
By-product	INR/Acre	2,958	3,341	3,683	4,321	3,947	3,947	3,947	3,947
Total Realization	**INR/Acre**	**42,413**	**45,395**	**50,639**	**64,252**	**67,615**	**69,772**	**67,767**	**73,638**
Human Labour	INR/Acre	7,156	8,925	9,502	9,752	10,235	11,226	11,892	12,582
Machine Labour	INR/Acre	1,554	2,219	2,115	2,621	2,610	3,012	3,269	3,657
Animal Labour	INR/Acre	939	961	1,113	859	1,062	1,112	1,171	1,203
Seeds	INR/Acre	3,000	2,478	2,651	2,450	2,719	2,283	2,322	2,329
Fertilizers & manure	INR/Acre	2,374	2,922	3,622	3,986	4,486	4,500	4,570	4,926
Pesticides & Insecticides	INR/Acre	87	189	244	192	190	131	131	131
Water & Electricity	INR/Acre	1,899	2,649	2,386	2,419	3,695	3,759	3,571	3,392
Working Capital	INR/Acre	1,063	1,272	1,352	1,392	1,562	1,312	1,334	1,338
Miscellaneous	INR/Acre	1	2	2	0	-	-	-	-
Total Cost	**INR/Acre**	**18,074**	**21,617**	**22,987**	**23,672**	**26,558**	**27,334**	**28,262**	**29,560**
Total Profit	**INR/Acre**	**24,340**	**23,779**	**27,652**	**40,580**	**41,056**	**42,437**	**39,505**	**44,079**

Source: JM Financial, CACP

Exhibit 189. Per acre farm economics of Onion

		2011	2012	2013	2014	2015	2016	2017	2018
Yield	Quintal/Acre	57.5	65.2	64.7	65.2	65.3	64.2	71.0	71.0
.0Realization	INR/Quintal	1,321	882	1,048	2,295	1,695	2,221	1,081	1,297
By-product	INR/Acre	447	490	470	688	435	435	435	435
Total Realization	**INR/Acre**	**76,429**	**57,985**	**68,269**	**150,398**	**111,098**	**142,980**	**76,724**	**91,982**
Human Labour	INR/Acre	4,669	7,461	7,809	10,421	10,595	11,572	12,638	13,804
Machine Labour	INR/Acre	1,177	1,721	1,496	1,856	2,270	2,417	2,573	2,739
Animal Labour	INR/Acre	513	457	334	654	610	621	632	643
Seeds	INR/Acre	5,365	3,530	2,554	6,204	10,652	10,387	10,803	11,033
Fertilizers & manure	INR/Acre	2,601	2,698	3,390	4,108	4,154	4,242	4,322	4,431
Pesticides & Insecticides	INR/Acre	362	618	641	1,100	949	962	1,287	710
Water & Electricity	INR/Acre	1,301	1,323	1,325	1,676	2,639	2,745	2,803	2,856
Working Capital	INR/Acre	500	557	550	813	996	972	1,011	1,032
Miscellaneous	INR/Acre	-	12	36	2	20	20	20	21
Total Cost	**INR/Acre**	**16,487**	**18,378**	**18,134**	**26,834**	**32,885**	**33,937**	**36,089**	**37,268**
Total Profit	**INR/Acre**	**59,942**	**39,607**	**50,135**	**123,564**	**78,213**	**109,043**	**40,635**	**54,714**

Source: JM Financial<CACP

APPENDIX I

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