19 April 2017

JM FINANCIAL

Rural Safari V
Decoupling of rural income from monsoon

In our 5th Rural Safari, we assess the progress of efforts to decouple Indian agriculture from monsoon, and also present the near term trends in income and wealth. Our analysts travelled 3,000km+ across 11 states accounting for 73% of agri-GDP of the country.

JM Financial Institutional Securities Limited

Table of Contents

19 April 2017

India | Strategy

Rural Safari - V

Decoupling of rural income from monsoon

In our 5th rural survey conducted across 11 states (c.73% of agri-GDP), we assess the progress of efforts to de-couple Indian agriculture from monsoon in addition to forming a hypothesis on near-term incomes and wealth. In the near-term, we estimate (a) farm income (in majority of states) to be higher YoY by high single-low double digits, (b) non-farm incomes to pick up by double digits after a stable but lacklustre FY17, (c) likely normalisation of "rural" sentiment and consumption for non-luxury goods; (d) though a weak rural real estate market is keeping a tab on overall sentiments. The measures that could decouple rural income from monsoons like (a) crop insurance; (b) the government rural housing program; (c) spending on rural/irrigation capex by states; (d) higher farm productivity and (e) expansion of contract farming and diversification to more remunerative crops are still more of a medium-term phenomenon though we expect the initial benefits to be visible from FY18 onwards. Given that decoupling is a medium-term phenomenon, the uncertainty on the monsoons remains a risk for FY18 where we are assuming a normal monsoon. Some rural related spending stocks, in our view, would be Bajaj Corp (BUY), Dhanuka Agritech (NR), Finolex Industries (NR), Mahindra Financial (BUY) and V-Mart (NR)

- **Farm income set to increase in Rabi crop season:** We expect the on-going Rabi (Nov-Apr) crop realisations to be ahead YoY, driven by: (a) higher net sown area (+6% YoY), (b) highest MSP increase in the past three years, and (c) favourable weather during the crop growth period. The farm income growth rates could be lower for the smaller/marginal farmer versus the larger farmer given higher area under fruits/vegetables for the former and the lower prices for them. We also witnessed an increase in non-farm activities—tractor rentals, construction activity, dairy production and infrastructure activity, particularly road expansion work. The disruption in the rural ecosystem after demonetisation is almost behind us and we witnessed increased adoption of formal banking/digital transactions in agri-mandis.

- **PM Awas Yojana to double the number of homes built:** The government's focus on increasing spending on rural areas will likely boost the share of non-farm income (2/3rd). The flagship central housing scheme PMAY envisages building 7.3mn houses during FY18, almost 2x the houses built during FY17. Our study of FY17-18 state government budgets (14 states) also indicates overall capex growth at 25% YoY compared to 10% for revenue expenditure. Rural-related spending (rural roads, rural housing, irrigation, agri. and allied activities) continues to be a strong focus area for the states with 14% YoY growth provided in FY18. Within irrigation, micro-irrigation seems to be a focus area in many states.

- **Consumption sentiment set to improve; buoyancy missing as yet:** Our interactions clearly indicate likely revival of consumption which will manifest after the Rabi season "realisation". However, the growth is likely to be gradual given (a) the sharp liquidity squeeze after 8 Nov'16 and delay in realisation from Kharif crops is still fresh in rural consumer's memory, (b) real estate in most places continues to be weak and has weakened even in states where hitherto the market was more buoyant, (c) amongst states, southern states are likely to see a decline in farm income due to weaker rainfall and low water levels; though given the low contribution of agriculture to the state GSDP (6-7% for TN and Kerala, 11% for Karnataka), the impact on consumption would be limited.

- **Other feedback:** (a) Agri-inputs—limited impact from demonetisation, higher Rabi acreage to drive mid-teen growth (vs. mid-single digit growth in FY16); stable inventory levels sets a good base for the upcoming Kharif; (b) Auto—revival in demand across segments; we estimate 2W/PV growth of 10-12%YoY in FY18; (c) Rural Financiers—improvement in collection efficiency (MMFS), though margin money in rural India still remains a partial challenge, focus on NPA rather than growth; (d) GST—limited awareness and concern about GST at retail level and partial preparations among distributors; and (e) Patanjali—reach remains limited in rural areas

Arshad Perwez
arshad.perwez@jmfl.com | Tel: (+91 22) 66303080
Suhas Harinarayanan
suhas.hari@jmfl.com | Tel: (+91 22) 66303037
Vaikam Kumar S
vaikam.kumar@jmfl.com | Tel: (+91 22) 66303018
Aishwarya Pratik Sonker
aishwarya.sonker@jmfl.com | Tel: (+91 22) 66303351
Shyam Sundar Sriram
shyam.sriram@jmfl.com | Tel: (91 22) 66303077
Vicky Punjabi
vicky.punjabi@jmfl.com | Tel: (+91 22) 66303065
Pramod Krishna
pramod.krishna@jmfl.com | Tel: (+91 22) 61781074
Jayant Kharote
jayant.kharote@jmfl.com | Tel: (+91 22) 66303099
Nikhil Walecha
nikhil.walecha@jmfl.com | Tel: (+91 22) 66303027
Roshan Paunikar
roshan.paunikar@jmfl.com | Tel: (+91 22) 66303563

Link for our previous reports

Rural Safari I

Rural Safari II

Rural Safari III

Rural Safari IV

Rural Update Dec 16

Rural Safari: 11 states, 15 districts, 3,000+ kms—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.

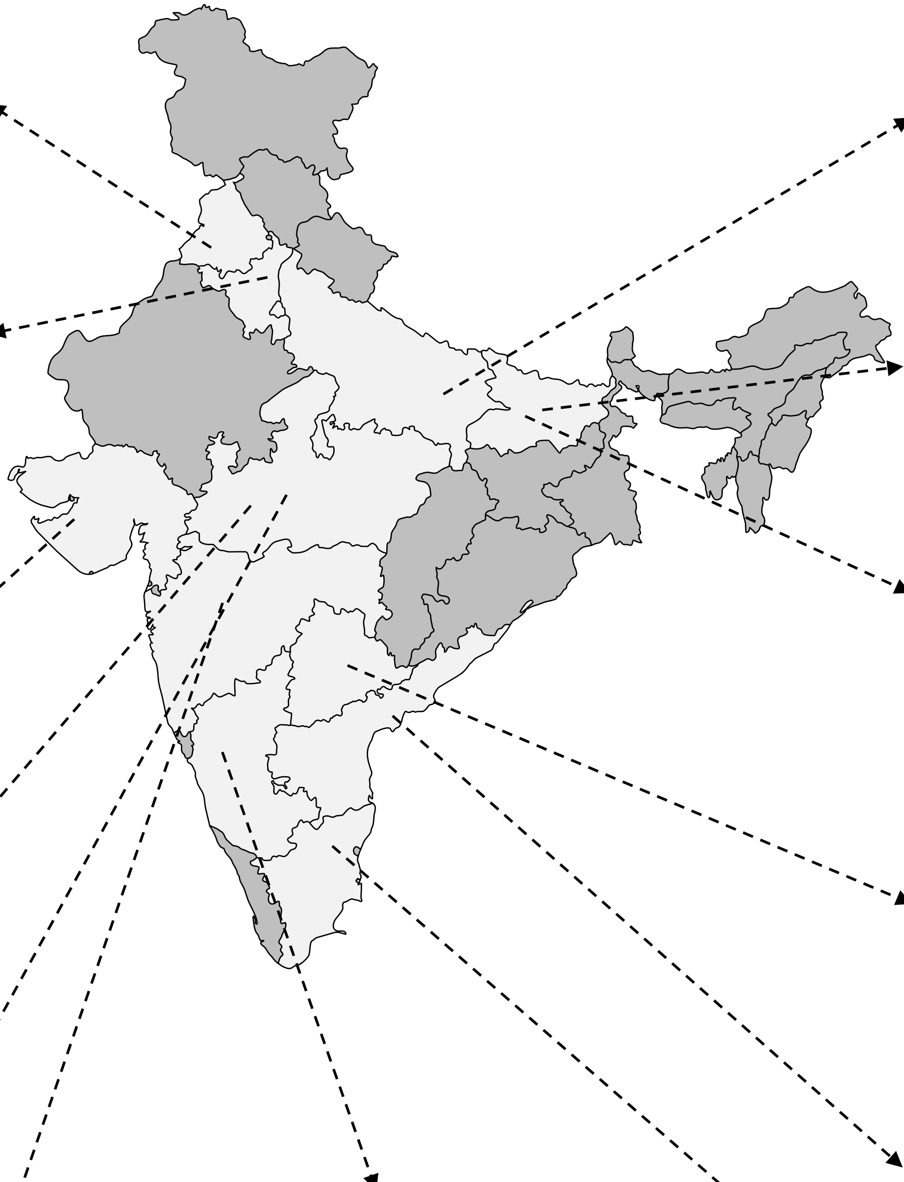
Kurukshetra
Kurukshetra is among 16 districts chosen by the government for the pilot implementation of DBT in fertilizers. This is also the site of the war in the epic narrative—the Mahabharata. Key crops: Paddy, wheat, gram and vegetables.

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.

Ratlam
Ratlam, in the Malwa region of West Madhya Pradesh, is also known for gold trading as well as local cuisines. Soya bean, wheat, gram and maize are key crops, while strawberry and grapes are also grown in the district.

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.



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-biggest 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.

Davanagere
The region is a cotton hub and popularly known as the Manchester of Karnataka. Primary commercial ventures of Davanagere are now dominated by education and agro-processing industries. It has been selected as one of the 100 Indian cities to be developed as a smart city under the Smart Cities Mission. Key crops: Maize and cotton.

Source: Rural Safari

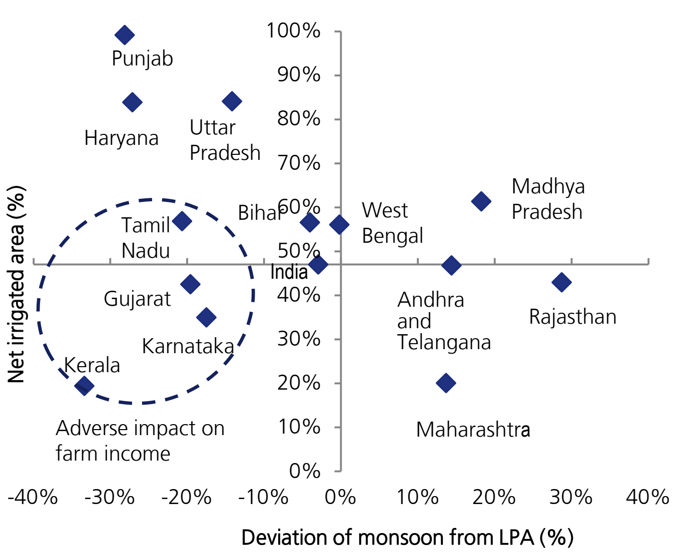
Focus Charts……

Exhibit 1. A summary of comments across states during our visit on the agricultural income

State we visited	Share of agri. in state GSDP (%)	Farm income trend - YoY	Detailed comments
Madhya Pradesh	27.2%	Strong	Healthy increase in yield of most of Rabi crops benefited by good monsoons in 2016 and conducive weather during the Rabi season in 2017 (optimum temperature, no unseasonal rains, no frost and other favourable conditions). Mandi trading activity on near normal levels.
Uttar Pradesh	20.2%	Strong	Rabi crop output to be ahead of last year and traditionally, due to weak procurement infrastructure, farmers have been selling their produce below MSP to traders. However, the current state government is focused on getting better farm realisations, and in case of successful implementation, at least 20-30% YoY gain could accrue only from **price benefits**.
Punjab	19.7%	Strong	Rabi crop produce has been ahead of last year (at least 10%, largely wheat) on good weather conditions. Harvesting will be done during April. Prices of crops such as cotton have also firmed up in the past few months, which will drive higher income.
Bihar	16.5%	Strong	Rabi crop output to be clearly ahead of last year, and situation is very similar to Eastern UP. We did hear some instances of pest attacks on gram, but that forms a relatively small proportion of output. Procurement infrastructure (mainly for wheat) remains weak.
Andhra Pradesh	14.8%	Modest	An across-the-board increase in crop output (paddy, chilli and others), barring few districts in the south. Due to the shift from cotton to chilli crop last year and better yield, chilli production has almost doubled YoY, while realisations have come down 60-70% YoY. Still, overall income for farmers is expected to be higher than the previous year.
Telangana	14.8%	Modest	The overall scenario is largely similar to Andhra Pradesh; irrigation projects such as Project Kakatia has led to an increase in irrigated areas and hence crop productivity is better on YoY basis. A healthy production of paddy and chilli during the current Rabi season.
Haryana	14.4%	Strong	Very similar to Punjab, overall Rabi output is expected to be YoY higher with harvesting underway in April. Mandi trading has reached normal levels.
Gujarat	11.4%	Flat	Rabi output on an average would be slightly higher YoY with wide disparity within the state, given non-uniform rainfall during the monsoon and an overall deficit. Harvesting to be almost over (gram, cumin, wheat, tur and others) by the last week of March.
Karnataka	11.3%	Decline	Consecutive third bad monsoon for the state (in southern and central parts), and low reservoir water levels have additionally impacted the yield for Rabi crops. As a result, there has been lower sowing and yield is also low across crops.
Tamil Nadu	6.3%	Decline	A deficit south-west monsoon as well as highly deficient south-east monsoon (provides 50% of water for Tamil Nadu) has led to a decline in yield across crops, and hence pressure on farm income. Situation Is overall weak for farm income growth (YoY).
Maharashtra	6.0%	Strong	A decent rainfall after two bad years has led to good Rabi crop output across crops—wheat, gram, onions and sugarcane (sowing done at present) in the state. Mixed trend in realisations with weakness in prices of onions and other vegetables; however, overall, a good produce and expected better income YoY.

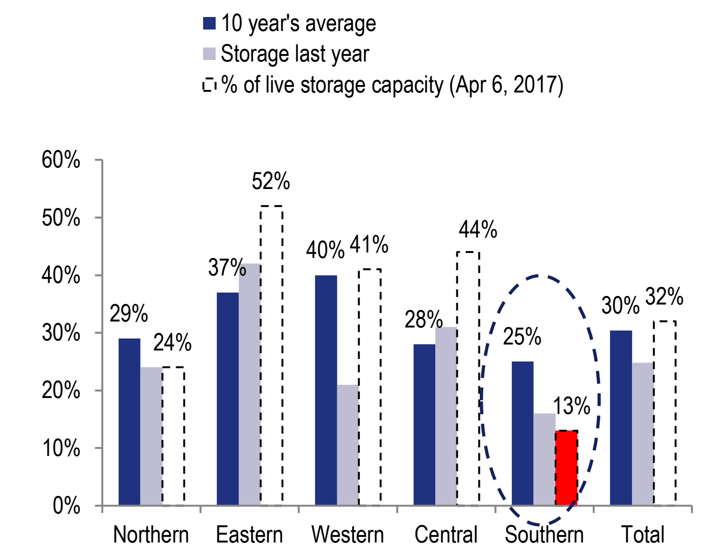
Source: Rural Safari : Strong : Modest : Flat : Decline

Exhibit 2. 2016 overall was a good rainfall year (-3% lower than LPA); though select states were impacted by deficit rain



Source: IMD, JM Financial

Exhibit 3. Water levels (Apr 2017) better than last year, barring in South India – A better start to the FY18 Kharif season…



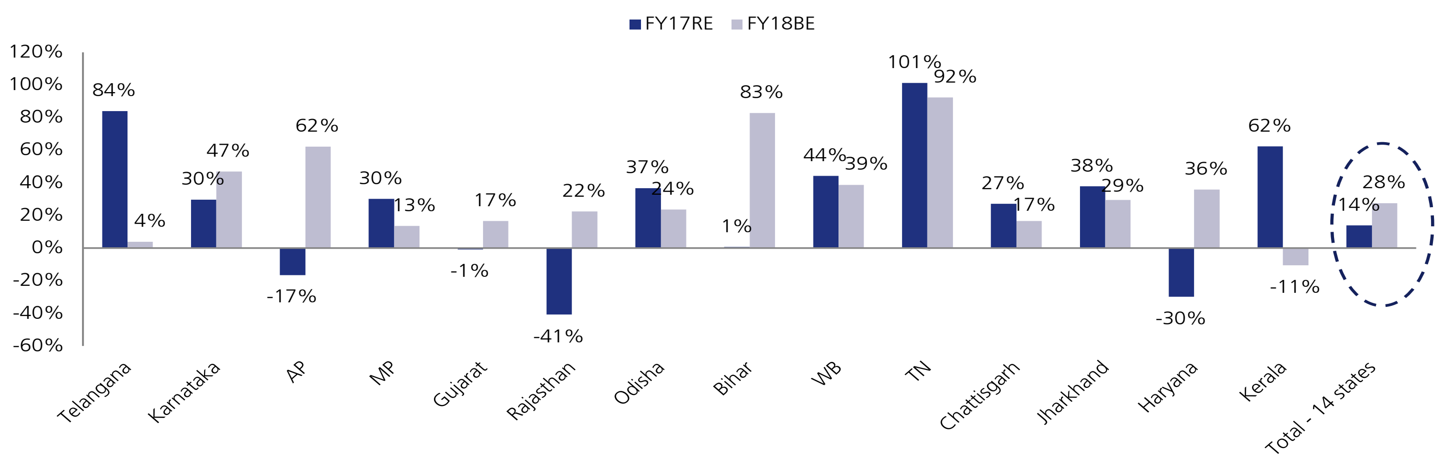
Source: PIB, JM Financial

Exhibit 4. Medium term themes which will likely decouple Indian agriculture with monsoon…

Key Long Term themes	Comments	Feedback from our survey
Investments in Irrigation	Increase in allocation to PMKSY, increase in fund (NABARD) for irrigation from Rs 200bn to Rs 400bn, creation of micro-irrigation fund of Rs50bn, State's capex increase of 28% YoY for irrigation in FY18	Key investment priority for farmers; despite delays in receiving subsidies, we heard more and more farmers opting for better irrigation methods, particularly drip and sprinkler irrigation systems
Expansion of Crop insurance coverage	Government plans expansion of crop coverage from 30% of gross cropped area in FY17 (25% in FY16) to 40% in FY18 and 50% in FY19	Overall mixed reaction, primarily due to lack of adequate information dissemination to farmers; Going ahead reduction in the granularity of insurance coverage (at present a village) will increase its appeal
Improvement in procurement process	State-specific actions undertaken to improve procurement (such as in UP for wheat), expansion of e-NAM market uniting 585 Mandis across states (already integrated 417)	Need for a long term strategy around improving procurement process, e-NAM awareness and usage building up, though these are initial days. State specific initiatives on procurement such as UP (MSP+Rs10/qtl for wheat) would augment farmer income in UP
Broadening the reach of agri-inputs	Soil testing and health card schemes to improve crop productivity, overall steady progress across the country and using of geo-tagging of soil to improve reliability and traceability	Increased awareness and inclination of usage of agri-inputs particularly in Eastern India; Distribution and reach of branded agri-inputs needs to increase. Soil Testing has overall favorable reception but with local variances
Other infrastructure investments – Housing, Roads	Allocation increases for rural housing PMAY (+44% YoY), Swachh Bharat Mission (+33%). Strong momentum on roads construction	Housing is an area with most traction and anticipation among the rural population (small and marginal). Increase in housing construction allocation across panchayats. Road construction momentum strong
Diversification of farming	Selected instances of corporates procuring from farmers, large investments in horticulture, polyhouses, etc. across states, Model contract farming law in progress	Once a model contract law is established, contract farming would scale up, Increased awareness of farmers through mobile/broadband connectivity aiding them in diversification to more remunerative crops - but still more prevalent among large farmers (10acre+) on account of access to capital

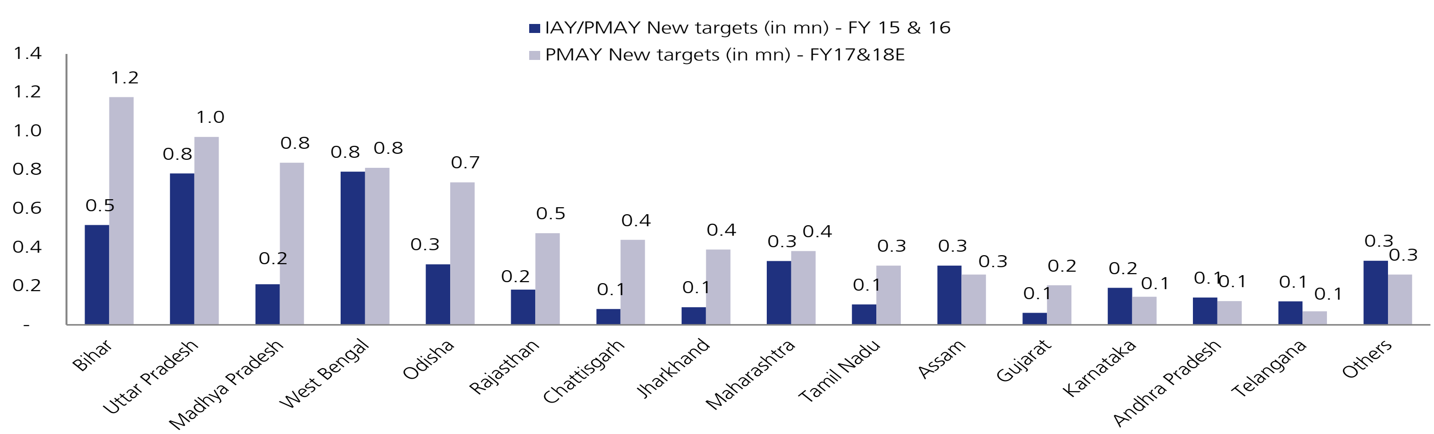
Source: PIB, JM Financial

Exhibit 5. Increase in Irrigation Spending during FY18 – Capex spend in FY18 up by 28% YoY (FY17: 14%) on irrigation by states; along with Centre's spending on PMKSY would boost irrigation efforts (particularly micro-irrigation)



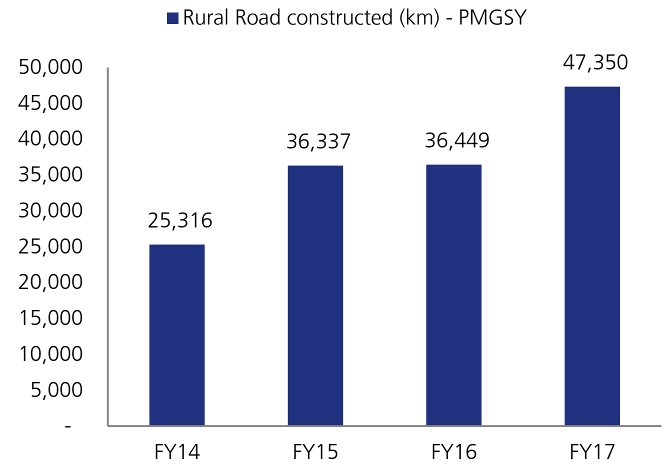
Source: State Budgets, JM Financial, Note:States arranged in decreasing order of absolute spending (FY18, Rs bn) for irrigation capital expenditure

Exhibit 6. Rural Housing – PMAY target to build 7.3mn houses in FY18, up from 3.2mn houses built in FY17 (from earlier schemes) – Construction related income thereby to accelerate during FY18 – Amount per house construction raised from Rs70,000 to 120,000



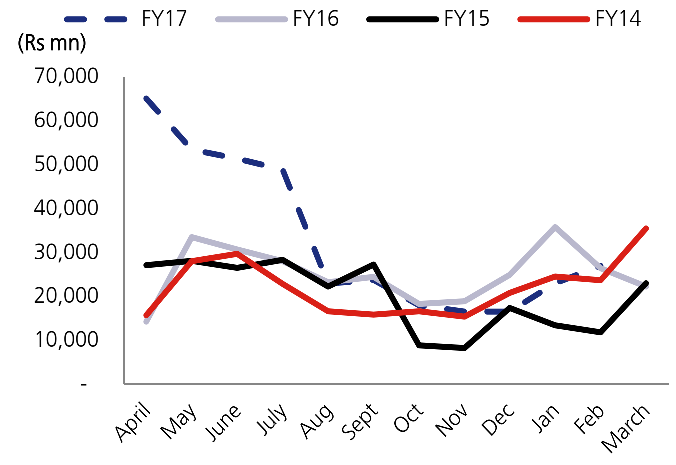
Source: PMAY, JM Financial: Note: Past allocations on new Indira Awas Yojana (IAY) house targets—FY13 & FY14 (5.3mn), FY15 & FY16 (4.2mn), FY17 & FY18 (7.3mn). During FY17, the government focused on completing earlier IAY houses and built c.0.32mn houses, therefore combined targets of PMAY (FY17 & 18)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

Exhibit 7. FY17 saw increase of 30% in Rural road constructed – momentum expected to continue in FY18



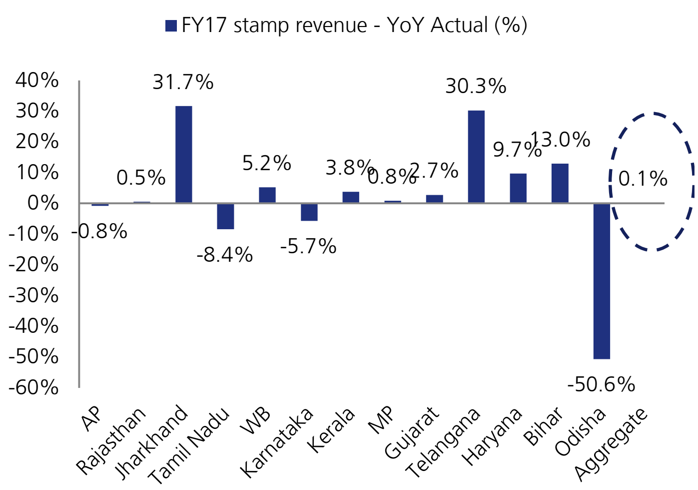
Source: PMGSY,JM Financial

Exhibit 8. NREGA allocation for FY18 (Rs480bn) retained at the elevated FY17 levels (Rs475bn) – would support wage growth



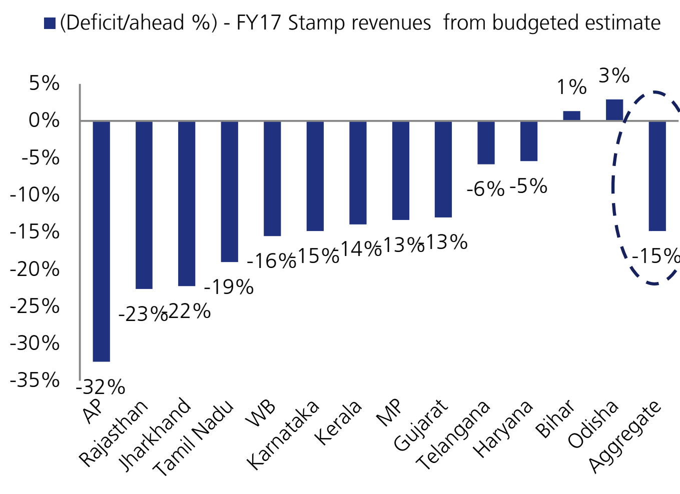
Source: nrgea.nic.in, JM Financial

Exhibit 9. …but real estate activity remains soft across the country—Stamp duty collections by 13 states flat in FY17, against 15% growth estimate



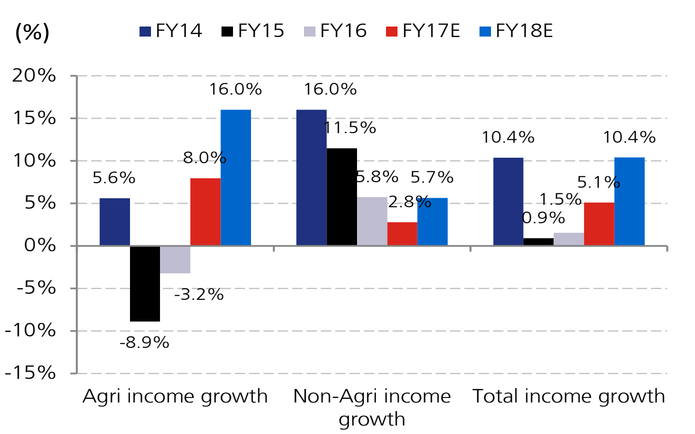
Source: State Budgets, JM Financial

Exhibit 10. (Deficit/ahead) of Stamp duty revenue across states from their budgeted estimates



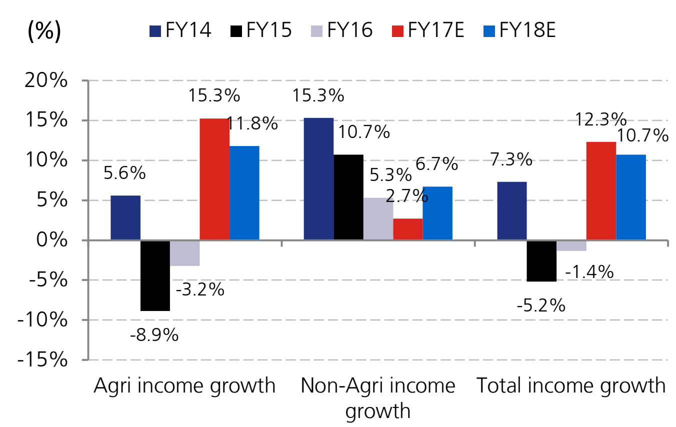
Source: State Budgets, JM Financial

Exhibit 11. In conclusion - we expect acceleration in a small farmer's income growth and thereby consumption in FY18 (FY17 adversely impacted by liquidity related challenges during Kharif season)



Source: JM Financial, Rural Safari

Exhibit 12. For a large farmer (10acre+), we expect broadly stable income growth during FY18 driven by expected MSP increase and acceleration in non-agri income growth; consumption to be steady



Source: JM Financial, Rural Safari

Exhibit 13. Snapshot from areas of visit: Current crop season vs. previous year's

	Gujarat	Punjab	Haryana	UP	Bihar	Madhya Pradesh		Maharashtra		Karnataka	Andhra/Telangana & Tamil Nadu		
	Jamnagar	Bhatinda	Kurukshetra	Varanasi	Bhojpur	Ratlam	Indore	Aurangabad	Ahmednagar	Davanagere	Vijayawada/ Guntur	Warangal	Tiruvallur
Agri-income													
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, Cumin	Soya bean, Wheat, Potato, Maize, Gram	Jowar, Paddy, Soya bean, Gram	Maize, Cotton, Paddy, Sugarcane	Maize, Arcanut, Paddy	Paddy, Cotton, Maize, Banana, Chilly	Paddy, Cotton, Green Gram, Castor, Red Gram, Orange	Paddy, Jowar, Maize, Gram, Sugarcane, Chillies, Coconut
Move towards cash crops	↑	↑	↑	↑	⇔	↑	↑	↑	↑	⇔	↑	↑	↑
Yield over last year	⇔	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↓
Price (non-MSP cash crops) over last year	⇔	↑	↑	↓	↓	↑	↑	↑	↑	↑	↓	↓	⇔
Overall farm income	⇔	↑	↑	↑	↑	↑	↑	↑	↑	↓	↑	↑	↓
Agriculture financing awareness and usage	↑	↑	↑	⇔	⇔	↑	↑	↑	↑	⇔	↑	↑	↑
Non-agri Income													
Dairy	↑	⇔	↑	↑	⇔	⇔	↑	↑	↑	⇔	↑	↑	↑
Tractor/Pick-ups	↑	↑	↑	↑	⇔	↑	↑	⇔	⇔	↓	↑	↑	↑
Remittances	↑	⇔	⇔	↑	⇔	⇔	↑	↑	⇔	⇔	↑	⇔	⇔
Local jobs	↑	↑	⇔	↑	⇔	⇔	↑	↑	⇔	↓	↑	↑	⇔
Wealth effect of land													
Urbanisation	↑	↑	↑	↑	↑	↑	↑	↑	⇔	↑	↑	↑	↑
Road connectivity	↑	↑	↑	↑	↑	↑	↑	⇔	⇔	↑	↑	⇔	↑
Price trend	↓	↓	↓	↑	↑	⇔	⇔	↓	↓	↓	⇔	⇔	⇔

Source: Rural Safar, Legend ↑: Strong ↑: Modest ⇔: Flat ↓: Decline, Note: *Fruits and Pulses grown at all the locations. The comparisons are over similar period last year

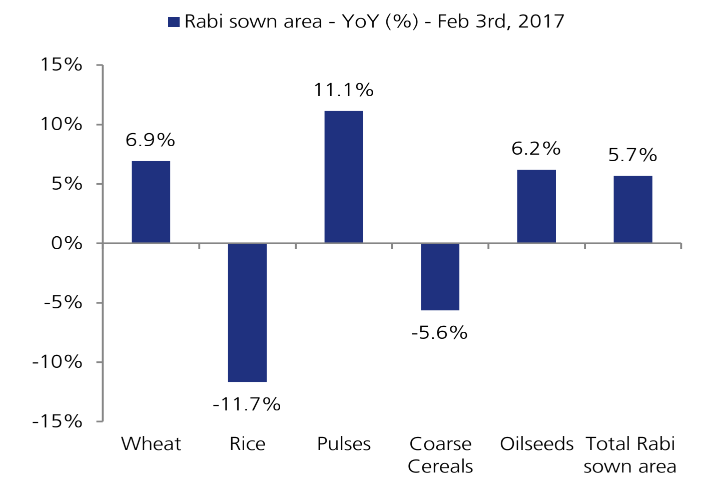
Rural Survey—near-term: Agriculture income set for YoY growth during current Rabi season

After two consecutive seasons of monsoon deficit in 2014 (-12% from LPA) and 2015 (-14.5% from LPA), India reported near-normal rainfall in 2016 (-3% from LPA). A healthy monsoon resulted in improved yield across Kharif crop (harvested during Oct-Nov'16) and now our current visits across 11 states clearly indicate a Rabi crop with higher yield and quality; this eventually would lead to higher agri-income over the next few months. However, the states with deficit rainfall and weak irrigation coverage (Karnataka, Tamil Nadu) are likely to report pressure on their agriculture incomes, going ahead.

Increase in Rabi sown area by 6% YoY sets a strong base for current crop output

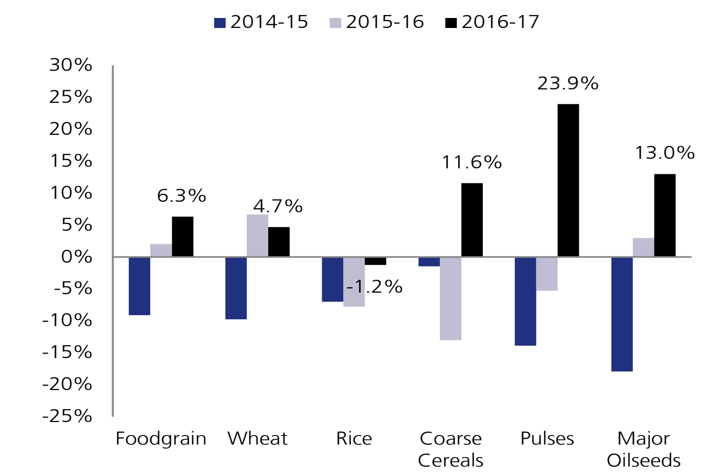
The sown area for FY17 Rabi crop had increased almost 6% YoY during FY17 with a decline only in rice (grown primarily during the Rabi season in South India and has a small share). The government's initial estimate of production accordingly indicates 6% YoY higher production in food-grains with a sharp growth of 24% YoY in pulses, 4.7% YoY in wheat (55% share of Rabi crop sowing) and 13% YoY growth in major oil-seeds.

Exhibit 14. Total Rabi sown area up 6% YoY in 2017



Source: PIB, JM Financial

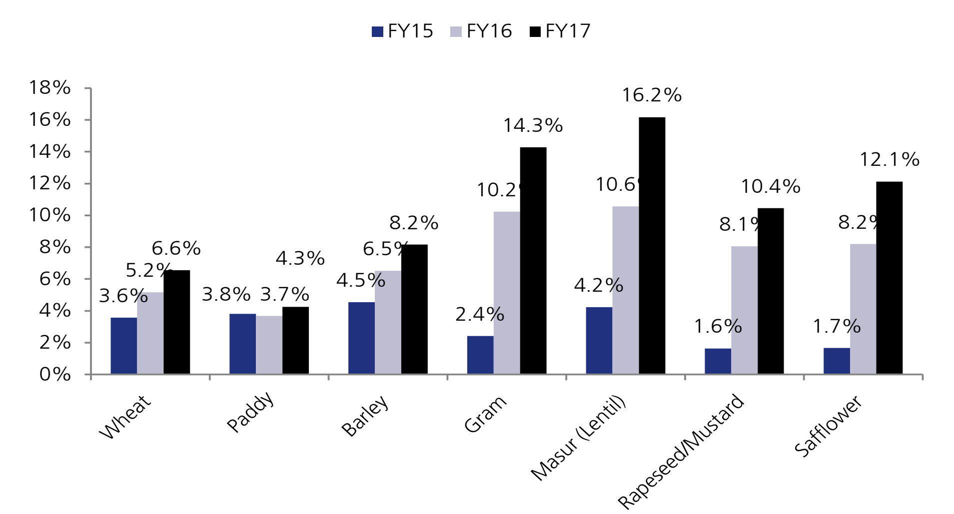
Exhibit 15. Advanced estimate of production: Rabi food-grain output ahead by 6.3% YoY



Source: CMIE, JM Financial

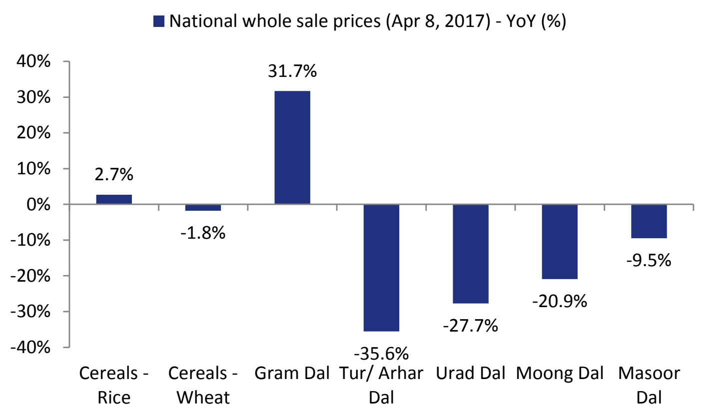
MSP raise for FY17 Rabi highest in past three years, would aid agri-income growth

Exhibit 16. Rabi MSP growth in FY17 highest in the past three years and will aid agri-income



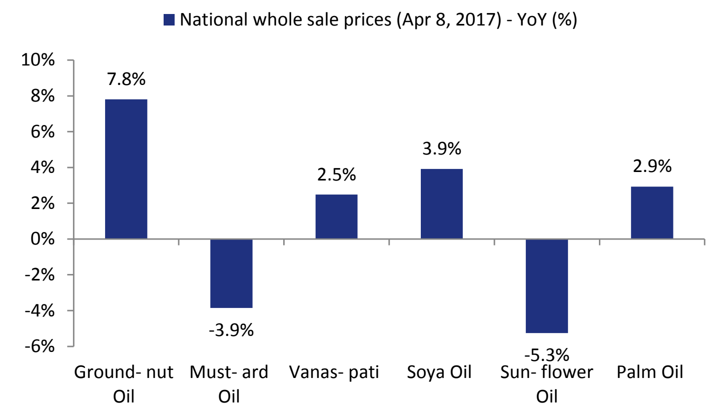
Source: CMIE, JM Financial

Exhibit 17. Wholesale price average across country (average, YoY)—cereals stable, gram ahead, while other pulses decline YoY



Source: Ministry of Consumer Affairs, JM Financial

Exhibit 18. Wholesale prices of oil-seeds largely remain within a range



Source: Ministry of Consumer Affairs, JM Financial

Overall, MSP growth for the Rabi crop season has been the highest during the past three years and would thereby aid in agri-income growth. Even though procurement is relatively limited across few states, the rise in MSP prices increases the benchmark rate for farmers. Our earlier report (Wheatonomics) and interactions across states during the Rural Safari have clearly indicated wide divergence among local rates for the same commodities, driven by local supply and demand.

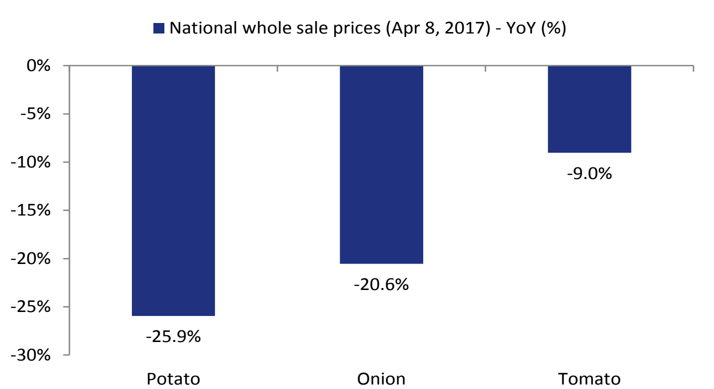
Prices for cereals supportive, decline in pulse prices compensated by higher yield

Whole-sale prices of pulses, barring gram has declined YoY on account of strong increase in production

Prices are on average supportive for farm realisations in the current Rabi season. On an average, the current prices in the first week of April—rice is higher by 3% and wheat is down 2% YoY, but varies by regions with c.5% higher wheat prices in the northern region. Oil-seed prices are also broadly in range and not much has changed from the past year. The wholesale price of pulses, barring gram has gone down c.20-35% YoY, given strong Kharif and Rabi production of pulses. Despite the price fall for pulses, we reckon the productivity has gone up for most pulses in the range of 20-40% YoY, and thereby there is no net-loss to farmers from this decline.

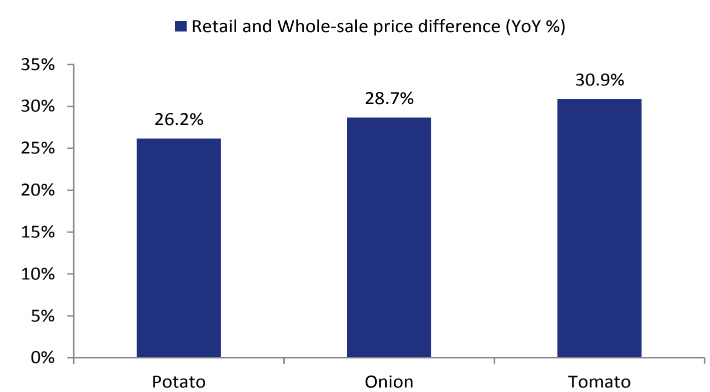
Prices for vegetables remain soft at wholesale levels

Exhibit 19. Wholesale prices of vegetables remain depressed



Source: Ministry of Consumer Affairs, JM Financial

Exhibit 20. Difference in wholesale and retail prices of vegetables



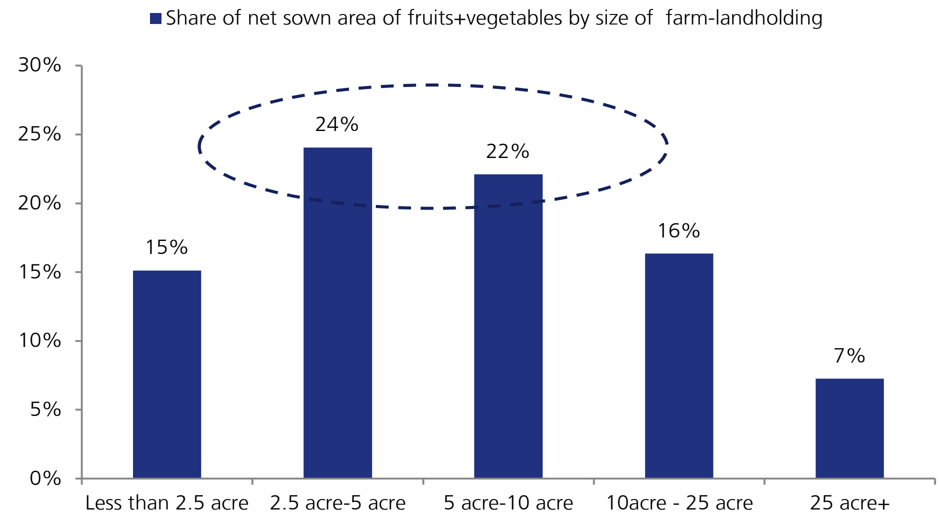
Source: Ministry of Consumer Affairs, JM Financial

Production of vegetables remains healthy on an average and wholesale prices continue to be weak; hence, vegetable farmers (c.8-10% of average farmers' agriculture income) at present would need an increase in prices to earn a profit. For example, in MP, Potato farmers informed us about their break-even price at farms to be c.Rs4-5/kg, which is the prevailing sale price. Hence, they are shifting their crop in cold-storages (stores till 8-9 months). Similarly, onion farmers are also storing wherever they can and await better sale prices.

Even a break-up of net sown area reveals, that vegetables and fruits are sown by the small and medium farmers majorly, and hence they will be impacted more in case of any losses.

Weakness in vegetable realisation impacts small and medium farmer (up to 10 acres) more than the large farmer (10acre+)

Exhibit 21. Small and medium farmers more impacted from weakness in vegetable and fruits



Source: NSSO, JM Financial

Yet, during our visits, we did not see any mass shift away from vegetables, as farmers grow vegetables as a hedge in a small section of their farm (a 4-acre farm will have vegetables grown in ½ acre or less). Thus, a chance of a vegetable shortage during the next few months does not seem likely.

Agri-mandi trading reaches near-normal levels (after brief lull following demonetisation); ensures better crop realisation for Rabi

We re-visited agricultural mandis across states and could clearly notice the near normalisation of trading volumes, which had been impacted after the demonetisation drive announced on 08Nov'16. There has been a shift in trading from cash to cheque/real-time gross settlement systems (RTGS); the extent of the shift again varies on the respective state's financial infrastructure, access to banking channels and inclination of farmers/traders to move towards banking channels. **A sharp slowdown in agri-trading in the mandis during the Kharif harvest season (Nov–Dec'16) had led farmers to make sale on credit to traders; this had impacted cash-flows adversely, particularly for smaller farmers. Therefore, normalisation of mandi trading levels bode well for farmers' Rabi crop realisations in the next 1-2 months.**

Farmers prefer instant settlements and thereby favour cash or RTGS, as compared to cheque based payments

The shift of payments from cash to cheque in agri-mandis has led to: **(a)** an increase in the payment cycle for a farmer to 10-20 days, depending on the financial infrastructure of the state, and **(b)** delay in consumption pick up post-harvest as compared to earlier. We also heard about the demand from farmers and reluctance of "cheque" as a transaction medium because of the delays involved in receiving payments. Farmers on an average preferred cash or RTGS settlements.

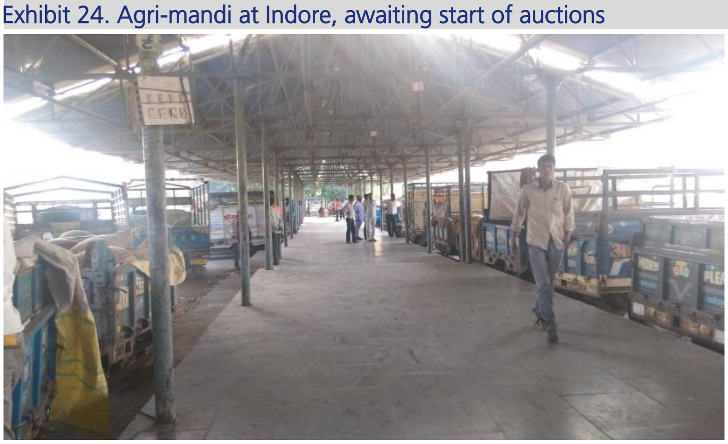
Exhibit 22. Active mandi in Warangal, AP

Source: JM Financial, Rural Safari

Exhibit 23. Sale of cotton in Bhatinda, Punjab

Source: JM Financial, Rural Safari

Exhibit 24. Agri-mandi at Indore, awaiting start of auctions



Source: JM Financial, Rural Safari

Exhibit 25. Preparation of the mandi at Kaithal, Haryana for wheat

Source: JM Financial, Rural Safari

Our visits indicate increase in farmer income after the Rabi harvest, barring South Indian states, which have reported rainfall deficit

Crop production has been better at most of the regions we visited, barring Karnataka and Tamil Nadu

Our expectation of 5% and 12% YoY total income growth for a small and large farmer, respectively, during FY17 was premised on a healthy growth in Rabi output. Our visits across the country corroborate the view that barring South Indian states (Karnataka, Tamil Nadu, Kerala), most states would see an increase in agricultural income driven by: **(a)** the increase in yield, **(b)** improvement in quality of produce, given adequate water levels and favourable weather during the Rabi season, **(c)** normalisation of trading at agri-mandis, and **(d)** overall favourable pricing environment (barring select crops and vegetables).

Exhibit 26. A summary of comments across states during our visit on the agricultural income

State we visited	Share of agri in state GSDP (%)	Jun-Sep 2016 (Monsoon) deficit/ahead	Farm income Trend	Detailed comments
Madhya Pradesh	27.2%	18.0%	⇧	Healthy increase in yield of most Rabi crops (such as wheat, gram and garlic) benefited by good monsoons in 2016 along with conducive weather during the Rabi season in 2017 (optimum temperature, no unseasonal rains, no frost, etc.). Mandi trading activity on near normal levels after demonetisation and Rabi harvesting to be done by the second week of April.
Uttar Pradesh	20.2%	-14.2%	⇧	Relatively late sowing in this state (partial impact from demonetisation), yet Rabi crop output is likely to be ahead of last year with harvesting to be largely done by the end of April, hence unseasonal rains now (April) can play spoilsport. These regions have seen a relatively warm winter and hence there has been some delay in harvesting timelines. Traditionally, due to weak procurement infrastructure, farmers have been selling their produce below MSP to traders; the current state government is focused on getting better farm realisations and in case of successful implementation, at least 20-30% YoY gain would accrue only from **price benefits**. Mandi trading still largely cash-based and would pick up by the second half of April.
Punjab	19.7%	-28.0%	⇧	Rabi crop produce has been ahead of last year (at least 10%, largely wheat) on good weather conditions. Harvesting will be done during April. Prices of crops such as cotton have also firmed up in the past few months, which will drive higher income for farmers.
Bihar	16.5%	-4.0%	⇧	Rabi crop output to be clearly ahead of last year, and situation is very similar to Eastern UP. We did hear some instances of pest attacks on gram, but that forms a relatively small proportion of output. Procurement infrastructure (mainly for wheat) remains weak and we do not expect any material change in that, unlike Uttar Pradesh.
Andhra Pradesh	14.8%	9.0%	↑	There has been an across-the-board increase in crop output (paddy, chilli and others), barring few districts in the south. Due to the shift from cotton to chilli crop last year and better yield, chilli production has almost doubled YoY, while realisations have come down 60-70% YoY. Yet, overall income for farmers is expected to be higher than the previous year. We also heard a shift back to cotton in 2017 as cotton prices remain firm.
Telangana	14.8%	20.0%	↑	Overall, the scenario is largely similar to Andhra Pradesh; irrigation projects such as Project Kakatia has led to an increase in irrigated areas and hence crop productivity is better on YoY basis. A healthy production of paddy and chilli in states such as AP.
Haryana	14.4%	-27.0%	⇧	Very similar to Punjab, overall Rabi output is expected to be YoY higher with harvesting underway in April. Mandi trading has reached normal levels.
Gujarat	11.4%	-18.0%	⇔	Rabi output on an average would be slightly higher YoY than the previous year with wide disparity within the state, given non-uniform rainfall during the monsoon and overall a deficit. Harvesting to be almost over (gram, cumin, wheat, tur and others) by the last week of March. Prices of non-MSP crops have been under pressure, still better than the past year. Agri-mandi operations reached almost near normal levels after demonetisation.
Karnataka	11.3%	-18.0%	⇩	Consecutive third bad monsoon for the state (in south and central parts), and low reservoir water levels have additionally impacted the yield for Rabi crops. As a result, there has been lower sowing and yield is also low across crops—arcanaut, maize and chilli—in the state and hence farm income would be weaker on YoY basis.
Tamil Nadu	6.3%	-21.0%	⇩	A deficit south-west monsoon as well as highly deficient south-east monsoon (provides 50% of water for Tamil Nadu) has led to a decline in yield across crops, and hence pressure on farm income. Situation is overall weak for farm income growth (YoY) across the state.
Maharashtra	6.0%	14.0%	⇧	A decent rainfall after two bad years has led to good Rabi crop output across crops— wheat, gram, onions and sugarcane (sowing done at present)—in the state. Mixed trend in realisations with weakness in prices of onions and other vegetables; however, overall, a good produce and expected better income on YoY basis.

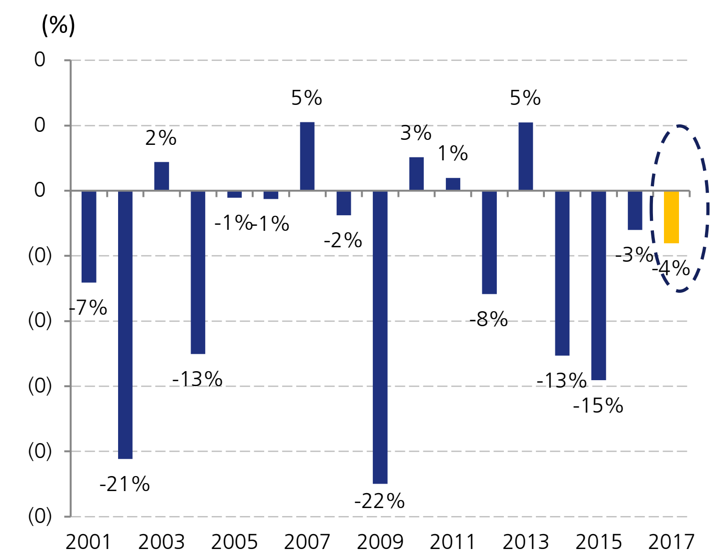
Source: Rural Safari , Legend: ⇧ : Strong ↑ : Modest ⇔ : Flat ⇩ : Decline

FY18 Outlook: A good monsoon remains important for near-term agri. growth

Given that only c.48% of India's net cropped area is irrigated, a good monsoon (July-Sep) is still highly important for agricultural output. IMD has forecast 96% of Long Period Average (LPA) rainfall during 2017. Apart from the quantum of rainfall, spatial and geographic distribution is also important for the agricultural output.

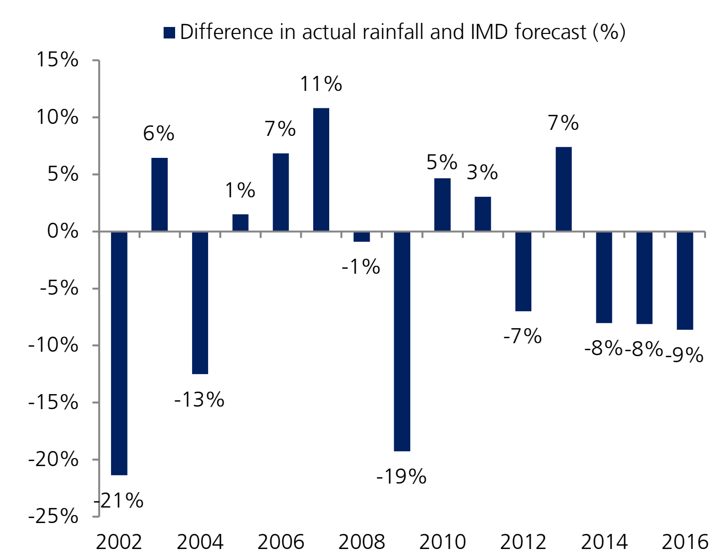
IMD's initial forecast is of normal rainfalls in 2017 - 96% of LPA (2016: 97% of LPA)

Exhibit 27. Rainfall (Deficit/excess) over LPA – IMD has forecast normal rains during 2017 at 96% of LPA



Source: IMD, JM Financial, Note: Normal rainfall is defined as 96%-104% of LPA, below normal if rains are 90-96% of LPA and deficient if below 90%

Exhibit 28. IMD forecast has been higher from actual rains by c.8-9% over past three years

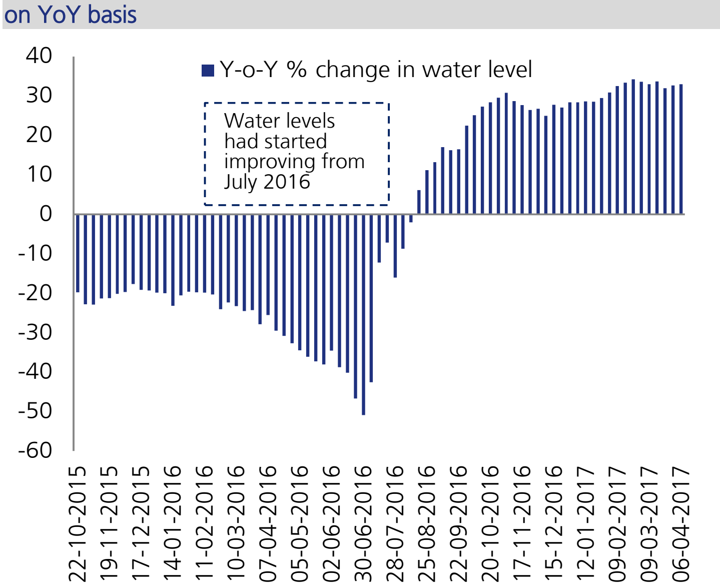


Source: IMD, JM Financial

In terms of the ground water level across the country, levels in Apr'17 are higher YoY (as measured by 91 reservoirs), but if looked at geographically, South India is suffering from low water levels, given the deficit in rainfall during the south-west monsoon (July-September), and also a very weak south-east monsoon. <u>Among states, reservoirs at Himachal Pradesh, Andhra Pradesh, Karnataka, Kerala and Tamil Nadu are at levels below the past 10-year normal levels and also below last years' water level.</u>

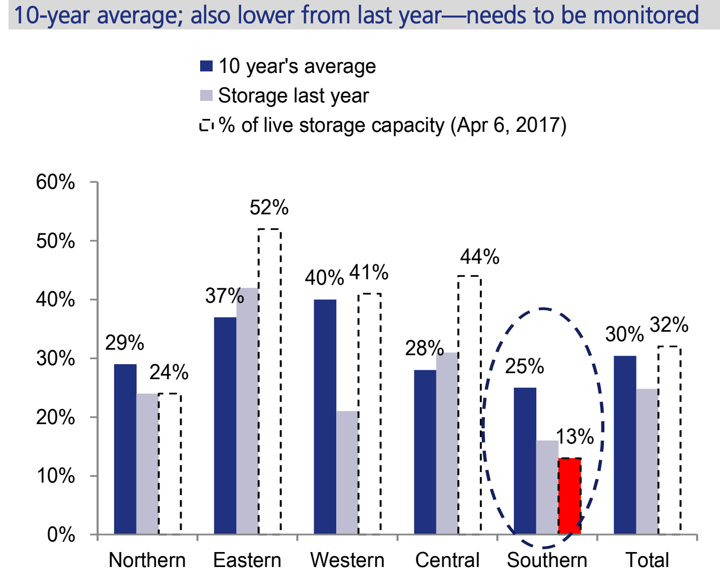
Barring south, reservoir levels are ahead of last year levels at all other regions

Exhibit 29. Overall water levels (measured by 91 reservoirs) is higher on YoY basis



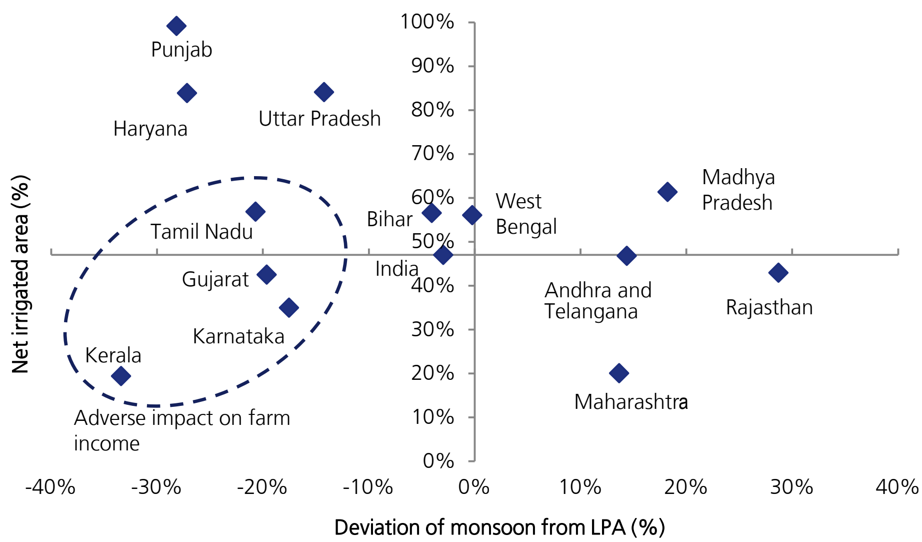
Source: PIB, JM Financial

Exhibit 30. Water level in the Southern reservoirs much lower than 10-year average; also lower from last year—needs to be monitored



Source: PIB, JM Financial

Exhibit 31. Distribution of 2016 monsoon (south-west): A good monsoon in South Indian states is essential during 2017 to arrest declines in agricultural output

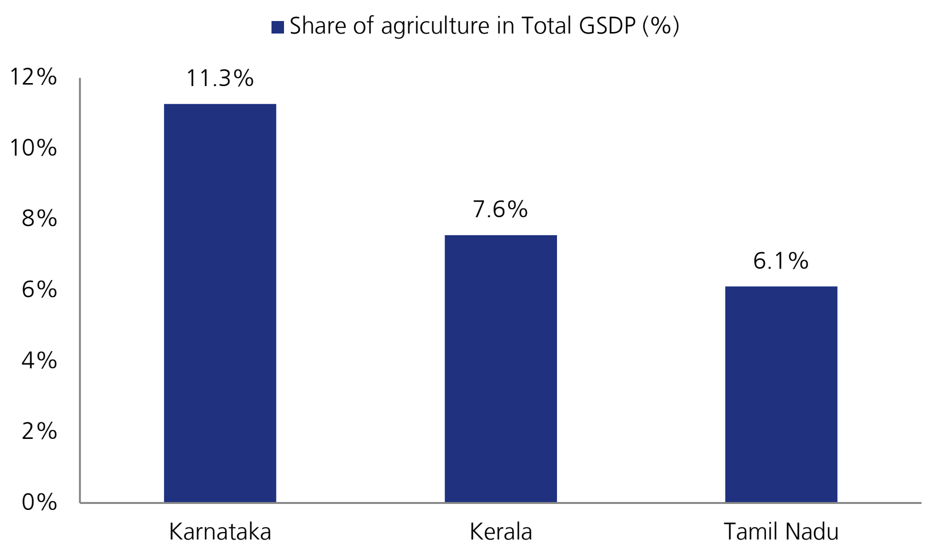


Source:, IMD, JM Financial

A weak agricultural income would be negative for the consumption segment in select South Indian states, but the share of agriculture in the states' GSDPs is in single-digits for both Kerala and Tamil Nadu, thereby limiting the adverse impact.

Despite likely weaker farm output, South Indian states have low share of agri in state GDP; hence the adverse impact on consumption to be limited

Exhibit 32. The rain-deficient South Indian states have lower share of agriculture in state GSDP vs. national average of c.14%



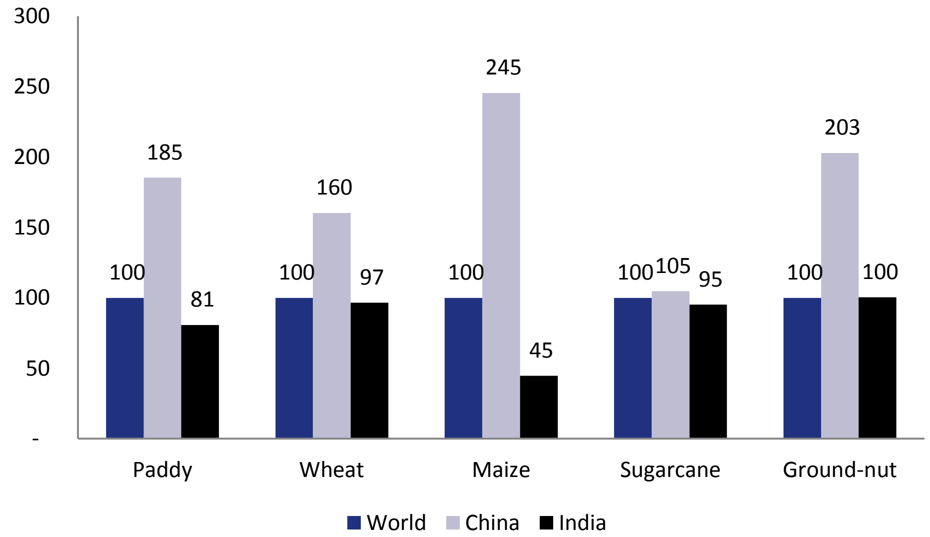
Source: CMIE, JM Financial

Rural Survey—medium-term: Decoupling of farm income from monsoon

Our visits to the hinterland during the past two years also highlighted structural changes underway in rural India driven by: **(a)** new government initiatives, and **(b)** increased awareness and access to information through penetration of technology (mobile phones). The productivity level of Indian agriculture is still behind global levels and there is wide disparity within Indian states as well.

Productivity levels of Indian agriculture have significant scope of growth

Exhibit 33. Productivity levels can substantially improve for India (indexed to 100 for the world) and thereby increase in agri-income for farmers



Source: Agri statistics, 2015, JM Financial

We have detailed out the key initiatives over the next few pages, which we believe are likely to make Indian agriculture less reliant on monsoons, and also would improve the income levels of the farming population. However, these are medium-term initiatives and a co-ordinated implementation by the centre and state governments is necessary for optimum results. We would closely monitor the progress of these flagship schemes and do believe that with the increasing usage of technology (geo-tagging of government's assets such as house/farm), universalization of Aadhaar (UID) and improvements in the implementation process bringing in more transparency are likely to result in a more superior implementation than in past.

The key initiatives, in our view, are: **(a)** boosting irrigation coverage, **(b)** expansion of insurance cover, **(c)** improvement in crop procurement and agri-mandi trading, **(d)** increasing reach and access of agri-inputs, **(e)** diversification in farming and potential from contract farming.

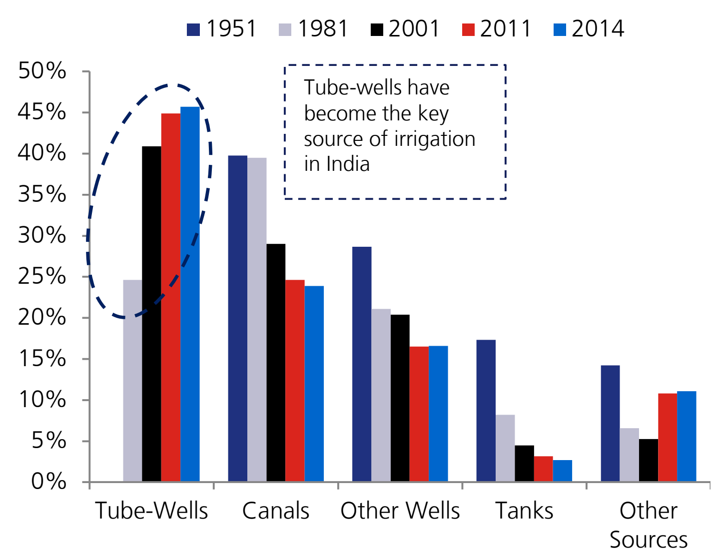
(A) Investments to improve irrigation coverage (c.48% of net cropped area currently)

Needless to say, the immense importance of rainfall for Indian agriculture has continued to be highlighted in each of our forays into rural regions. The productivity/income levels of farms with and without proper irrigation has been quite wide (income levels of irrigated farmers are more than 2x/3x of non-irrigated ones), and thereby improving irrigation remains the highest priority for farmers.

Driven by increase in use of tube-wells, water levels continue to go down, thereby increasing the cost of irrigation; water levels have declined from 200 ft five years ago in Ratlam, MP, to 300 ft+ now

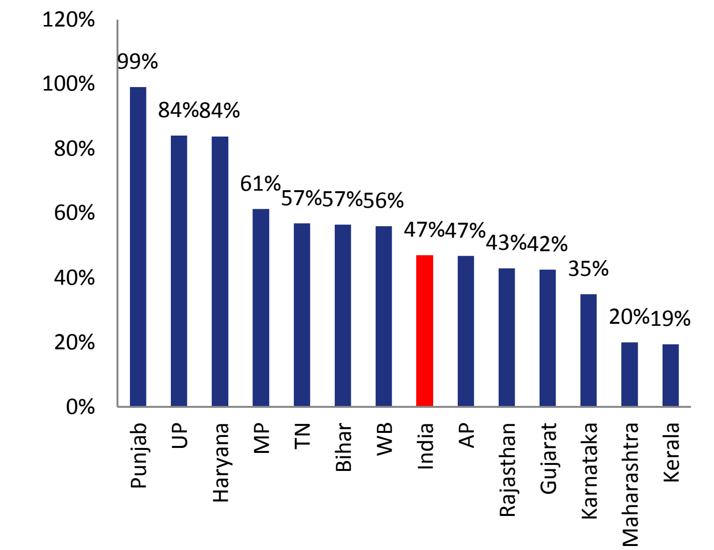
For example, in the Malwa region of MP (Indore, Ujjain, Ratlam and others), the bore-well water level has gone down from 200 feet five years ago to 300+ feet now. A large farmer, who used to share water with his neighboring farm throughout the year, finds insufficient water for his own use by Feb-March of the year, currently. Hence, farmers around his farm are forced to either invest in their own tube-well or have to find alternate arrangements (rent from other bore-well owners).

Exhibit 34. Share of irrigation by various modes



Source: CMIE, JM Financial

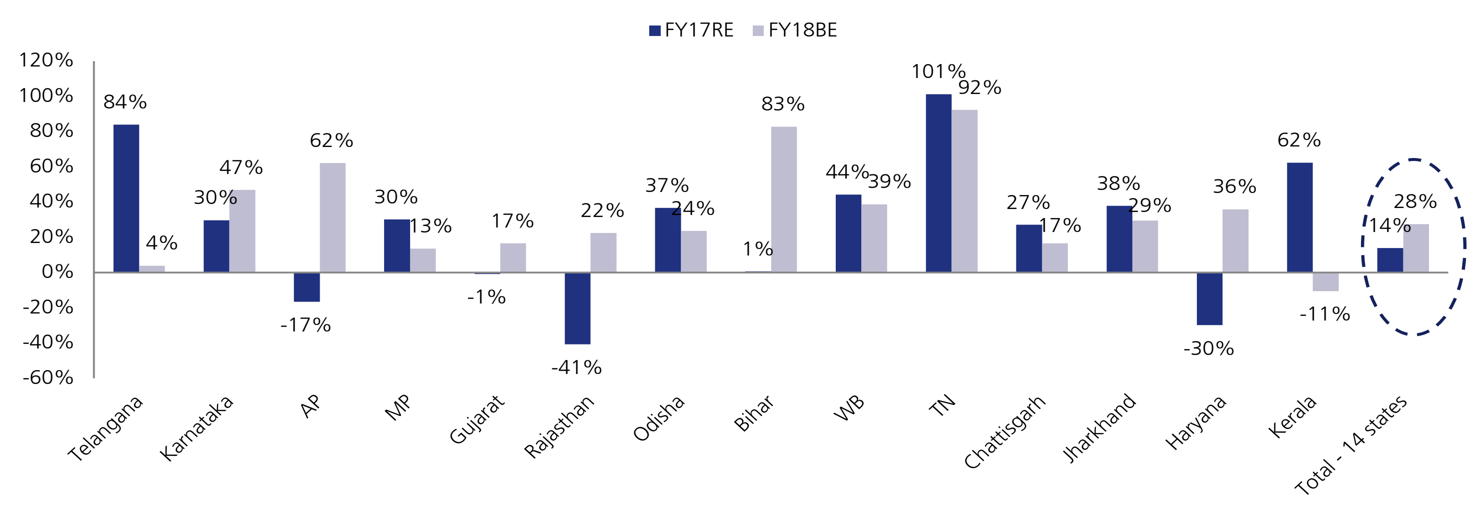
Exhibit 35. Coverage of net crop area under irrigation by states



Source: CMIE, JM Financial

Investments across states on irrigation—states increase irrigation capex by 28% YoY in FY18

Exhibit 36. Spending of capital expenditure on irrigation increases from 14% in FY17 to 28% for 14 states—states arranged in decreasing order of absolute spending (FY18, Rs bn) for irrigation capital expenditure



Source: State Budgets, JM Financial

Our study of state budgets reveal increased focus on irrigation, and the capex on irrigation has been budgeted to be up 28% YoY for 14 states (exhibit above), and that is up from the 17% YoY spending during FY17.

Investments across multiple modes in irrigation – Lift irrigation, Check dams, Stop dams, Tank based irrigation etc.

The investments in irrigation vary according to the topology and the prevailing use across states. For example, investment in canal irrigation is undertaken in North and East Indian states with enhancements to traditional modes. There modifications are done through initiatives such as lift irrigation (raising the level of water of a canal using pumps and then distributing water to a catchment area). We also heard about multiple steps taken across various areas—**(a)** creation of check dams in some villages (costs around Rs 1mn at least) in MP, and **(b)** stop dams creation, particularly in Maharashtra. As per the government, there have been 0.56mn farm ponds built under MGNREGA during FY17 and the target is to create additional 0.5mn ponds during FY18. The state of Telangana has focused on tank-based irrigation termed as Project Kakatia (envisages building 20,000 tanks over a period of five years).

Exhibit 37. UP is very well irrigated—a canal in Chandauli District, UP

Source: JM Financial, Rural Safari

Exhibit 38. A dry canal in Ahmednagar District, Maharashtra

Source: JM Financial, Rural Safari

Expansion of minor irrigation would be a multi-year theme

Maharashtra, AP, Karnataka and Gujarat lead in usage of drip irrigation

At present, 8.1% or 7.8mn hectares of gross irrigated area is covered under minor-irrigation systems (drip/sprinkler), and industry sources indicate the potential can be up to 60mn hectares. **Micro-irrigation results in improved water usage, higher crop productivity (30-40%) and thereby results in higher income.** A break-up of minor irrigation systems across states is provided below:

Exhibit 39. Share of alternate irrigation across country (Minor irrigation)

State	Drip	Sprinkler
Maharashtra	26.5%	8.5%
Andhra Pradesh	24.6%	7.5%
Karnataka	12.7%	9.5%
Gujarat	12.1%	9.5%
Tamil Nadu	8.6%	0.7%
Rajasthan	5.0%	34.5%
Madhya	4.9%	4.2%
Punjab	0.9%	0.3%
Telangana	0.7%	0.1%
Haryana	0.7%	12.5%
Odisha	0.5%	1.9%
Uttar Pradesh	0.5%	0.5%
Bihar	0.1%	2.2%
West Bengal	0.0%	1.2%
Rest of country	2.1%	6.8%
Total	**100.0%**	**100.0%**

Source: Ministry of Agriculture (FY15), JM Financial

Among farming systems, drip irrigation and sprinkler-based irrigation systems are increasingly getting adopted (particularly in low rainfall areas such as in Maharashtra, Gujarat and AP), and there is encouraging adoption of PVC pipes for better water retention. **Some of the names we heard around the beneficiaries are Finolex, Astral and Supreme Industries, among others.**

Box 1: Increase in investments by farmers in irrigation

In Guntur, AP, we met a farmer who was earlier using a bore-well; given the decrease in water levels, he has now installed drip irrigation. He has dug a pond in the farm, and invested in an irrigation system from his own savings, as he did not wait for subsidy.

The farmers, particularly the rich ones, have taken up multiple modes of improvement such as: **(a)** drip irrigation, **(b)** sprinkler-based systems, and **(c)** water efficient pipes, among others.

Exhibit 40. Irrigation–pipes investments to increase

Source: JM Financial, Rural Safari

Exhibit 41. Irrigation efforts to improve productivity in AP

Source: JM Financial, Rural Safari

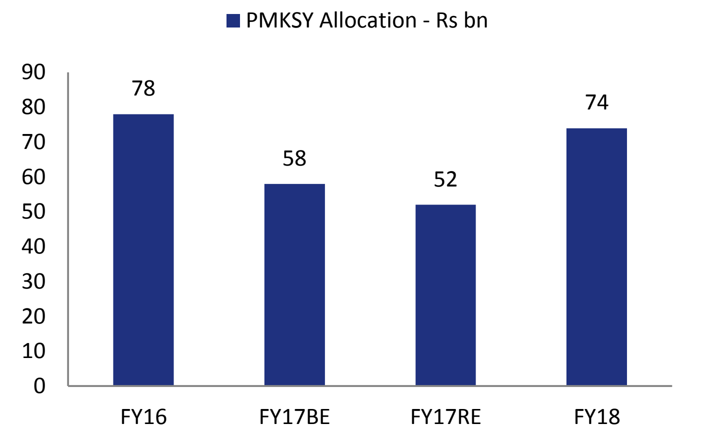
Most of the state governments and the centre provide subsidy for implementing minor irrigation systems (Rs 50,000/acre for drip irrigation), with minimum subsidy of 35%. However, we did hear about delays in farmers receiving the subsidy amount; this should be an area, which receives quick attention. **However, given the strong inclination for improving irrigation systems, even if government subsidies are not available, we reckon farmers are increasingly likely to invest in irrigation systems, going forward.**

Our interactions indicated farmers' would continue to invest in irrigation systems, even if the subsidy dissemination remains slow

PMKSY – PM Krishi Sinchai Yojana fund increased by 42% in FY18

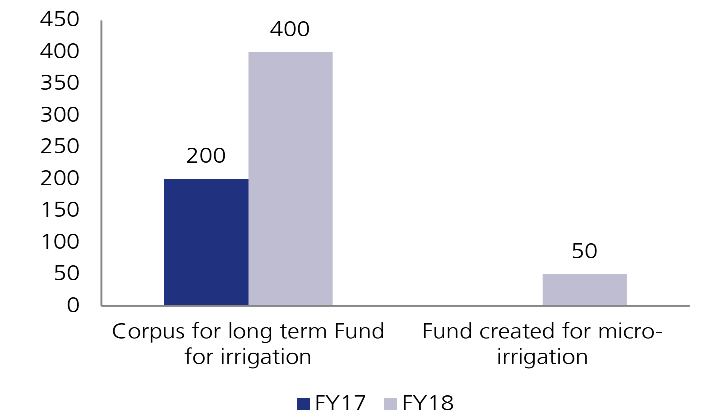
The central government programme PMKSY is aimed at increasing irrigation coverage and also improving water usage efficiency. PMKSY is to promote minor irrigation; at present, most states provide at least 35% of the purchase price of micro-irrigation systems as subsidy. The allocation under the scheme has increased from Rs52bn in FY17 to Rs74bn in FY18, a jump of 42%. The FY17-18 budget also established a Rs50bn fund for micro-irrigation, which would be an additional driver for growth.

Exhibit 42. Allocation for PMKSY increases in FY18



Source: PMKSY, JM Financial

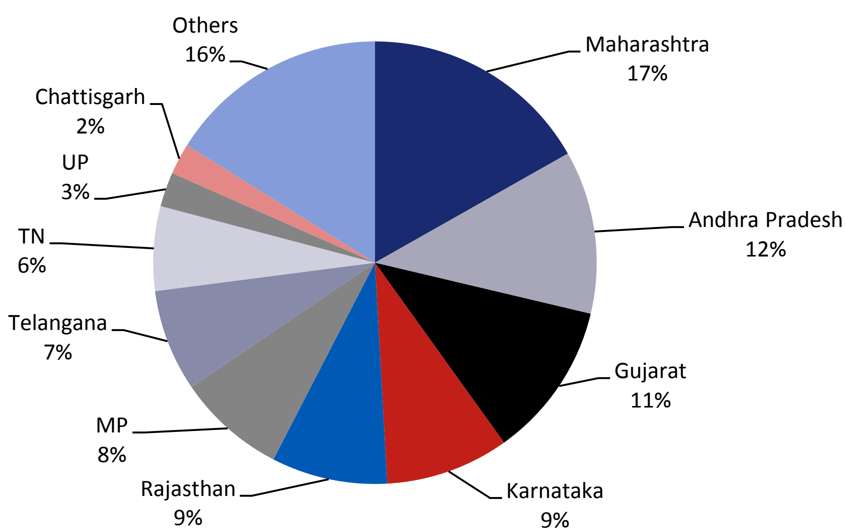
Exhibit 43. Increase in fund for irrigation at NABARD (Rs bn)



Source: Union budget, JM Financial

A breakup of the allocation from PMKSY clearly indicates the subsidy and investment in minor irrigation is concentrated in few states such as Maharashtra, Andhra Pradesh, Gujarat, Karnataka, Rajasthan, MP and Telangana, among others.

Exhibit 44. Allocation of funds from PMKSY in FY16-17 (largely subsidies)

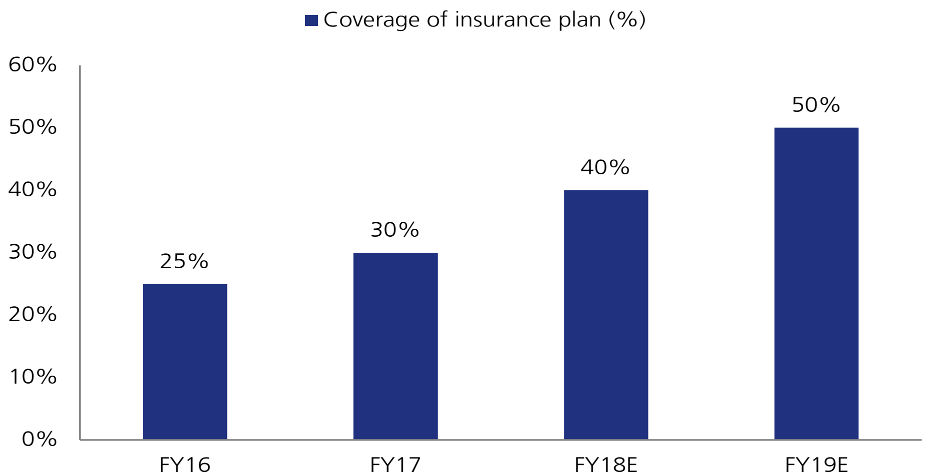


Source: PIB, JM Financial

(B) New crop insurance scheme (PM Fasal Bima Yojana)—a successful implementation can reduce volatility in farmer income

Variability and volatility in income is a key concern for agri-dependent families and though there have been many crop insurance plans earlier, the adoption has been low at 25% of the cropped area. The government has thereby launched a new plan, i.e., PMFBY, in early 2016 to be implemented across the country for the improvement of crop insurance coverage to 50%+ over the next three years. The plan has been implemented from Kharif 2016 (FY17) and across 23 states, which expanded to 25 states and 3 union territories in the on-going Rabi season.

Exhibit 45. Proposed coverage of crop insurance plan—50% of gross cropped area to be covered by FY19



Source: PIB, JM Financial

Increase in scope of insurance coverage, limit on farmer insurance premium

Increased participation by private players to increase the scope of crop insurance

- As against earlier crop insurance schemes that largely insured weather-related risks, **PMFBY is a comprehensive insurance scheme and insures a farmer the protection on the baseline "yield" for a particular crop in a region.**

Exhibit 46. Comparison of premium for wheat crop insurance during current Rabi season

District	Araria	Haryana	Madhya Pradesh
State	**Bihar**	**Hissar**	**Ratlam**
Sum insured (Rs per hectare)	44,375	55,000	54,000
Applicable actuarial rate (%)	17%	3%	8%
Applicable rate (%)—farmers share of premium	**2%**	**1.5%**	**1.5%**
Government share (%)	16%	1.5%	6.5%
Indemnity level (%)	70%	90%	80%
Premium calculations (Rs)			
Premium paid by farmer	666	825	810
Premium by state govt	3,475	413	1,755
Premium by central govt	3,475	413	1,755
Total premium	**7,615**	**1,650**	**4,320**

Source: PMFBY, JM Financial

- **The premium for a farmer is fixed in this scheme—1.5% of the sum insured in the Rabi season, 2% in Kharif for cereals and 5% for cash crops.**
- The premium charged by the insurance company in PMFBY is based on actuarial calculations. Since the payout from a farmer is fixed (1.5% to 5% based on crops), rest of

the premium is to be paid by the central and state governments in equal share. For example, if the actuarial premium for paddy is 10% of sum insured in some region, farmer will pay 2%, while the central and state governments will contribute 4% each.

- The insurance premium varies significantly across states and districts based on the risk assessment of losses and past yields on those regions. As an example, the table below highlights the differences in premium/sum insured across states for the same crop. Even within a state, the premium varies widely such as 1-17% in the case of different districts of Bihar.
- The adoption of Crop insurance scheme across states in the first year is highlighted below.

Exhibit 47. Adoption of crop insurance scheme during 2016-17 (Kharif insurance is generally 2x+ of Rabi): Maharashtra, Rajasthan, MP, UP and West Bengal have seen good adoption in FY17

	Kharif 2016			Rabi 2016-17	
State	Farmers insured (mn)	% of insured farmers	State	Farmers insured (mn)	% of insured farmers
Maharashtra	11.0	28.3%	Uttar Pradesh	3.6	21.7%
Rajasthan	5.0	12.9%	Rajasthan	3.1	18.4%
Madhya Pradesh	4.0	10.3%	Madhya Pradesh	2.9	17.2%
Uttar Pradesh	3.4	8.7%	Tamil Nadu	1.5	9.1%
West Bengal	3.1	7.9%	Karnataka	1.2	7.0%
Gujarat	1.8	4.7%	Bihar	1.2	6.9%
Odisha	1.8	4.5%	West Bengal	0.9	5.4%
Karnataka	1.7	4.5%	Maharashtra	0.8	4.8%
Andhra Pradesh	1.6	4.1%	Haryana	0.6	3.4%
Bihar	1.5	3.8%	Himachal Pradesh	0.2	1.2%
Total: Top-10 states	35.0	89.7%	Total- Top 10 states	15.9	95.2%
Total	**39.0**	**100.0%**	**Total**	**16.7**	**100.0%**

Source: PIB, JM Financial, Note: **(a)** The bidding for Rabi and Kharif crops are done separately, and typically much less farmer go for Rabi crop insurance, **(b)** total number of agri-households: 90mn

Crop insurance market jumps 3x in FY17 over FY16; still scope for further growth in the medium term

- In the earlier crop insurance schemes, the premium paid was not actuarial premium, leading to insurance companies reducing the sum assured and thereby making the scheme less attractive to farmers.
- Governments (centre and state) used to provide subsidy afterwards to insurance companies and implementation was not optimal. Therefore, private insurance companies were not aggressive in penetrating this market. Agriculture Insurance Company (AIC) held c.50% of the market share and other players were Bajaj, ICICI Lombard, Cholamandalam and HDFC, among others. AIC's gross insurance premium was Rs34bn/27bn in FY14/15, respectively, indicating a market size of c.Rs50-60bn.
- **Now, private sector companies are likely to participate more and this could further increase the market.**
- The amount of total premium has increased from earlier schemes (sum insured has increased), which has led to a growth in market size.
- **At present almost 96-97% of insured farmers comprise loan-taking farmers**. Once the scheme becomes popular, it is expected that additional farmers could also enrol for insurance, thereby increasing the market size.
- The central government had allocated Rs 30bn for the crop insurance programme during FY16, Rs 55bn in FY17 (FY17RE: Rs 132bn) and Rs 90bn for FY18.

Box 2: Feedback from farmers—information dissemination about the crop insurance plan needs to improve, successful implementation and claim settlements will increase trust and adoption

- We also interacted with farmers across regions to gauge their feedback on the new crop insurance scheme during the rural survey.
- We heard mixed reactions on the implementation of the scheme. One key reason was that farmers have not been properly educated about the scheme, and when they go to take loans (mostly the KCC or Kisan Credit Card), the premium is automatically deducted and they get loan amount excluding the premium.
- In addition, we heard instances of wrong crop insured for a farmer. Typically, a farmer makes a KCC and provides data on his land holding and the crop he grows. The insurance premium is calculated based on data given in the KCC (47mn accounts in FY16); if the KCC has not been updated, a farmer has been insured for a crop, which he is not growing in FY17. For example, if his KCC mentions cotton and if he has shifted to paddy this year, the premium has been still deducted for cotton only.

Exhibit 48. Some state-specific feedback on crop insurance schemes

State	Reaction	Comments
Bihar	Neutral	Very low literacy levels on insurance, also represents a significant opportunity
Haryana	Neutral with negative bias	Farmers have not been properly informed about the returns from the insurance scheme. They sounded sceptical of returns and concerned about the automatic deduction of crop insurance premium from their accounts
Maharashtra	Positive	Marathwada region has seen high crop losses and farmers here undertake private insurance. For them, PMFBY offers lower insurance premium and they were positive around the scheme
Madhya Pradesh	Neutral	Neutral reaction
Gujarat	Neutral	Need to increase awareness level of farmers on differences of new crop scheme
Karnataka	Neutral with negative bias	Farmers here again like Haryana were sceptical of the returns. Additionally, their concern was the low baseline yield provided by the government in the insurance scheme.

Source: JM Financial, Rural Safari

Need for more information dissemination to farmers on benefit of crop insurance and how the scheme is different from earlier

These are definitely execution issues, but we feel a successful implementation of the crop insurance scheme in the first two years would go a long way in reducing the volatility in earnings for a farmer. In addition, as and when the granularity level of settlement of claims is reduced (at present it is broadly on a village level), the insurance scheme size would increase.

Reduction in granularity level of claim settlement will materially improve the up-take of crop insurance scheme

The government is using technological methods (satellite mapping, drone-based assessment) and thereby we expect an improved outcome from the current scheme as compared to the earlier crop insurance plans.

(C) Improvement in crop procurement and agri-mandi trading

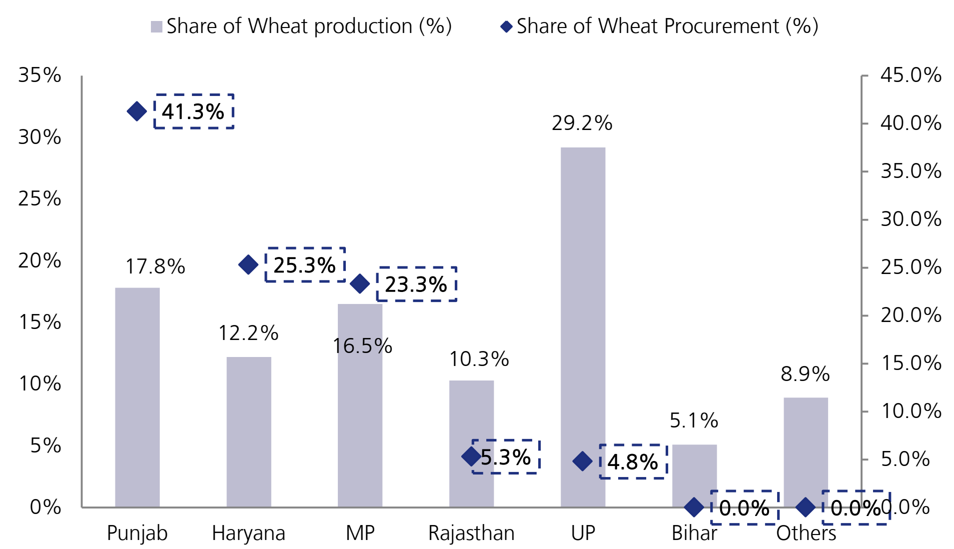
An overhaul of crop procurement machinery and farmer's payment process has come across as an area requiring major attention in all our trips. The problem of procurement is more acute for farmers, whose farm lands are far from highways and main roads connecting the agri-mandis. Owing to the difficulty in transportation as well as the costs involved, small farmers in particular, sell their produce at their farm itself to local traders/large farmers, who take it to a mandi/government procurement agency and then pay back a reduced price to the farmer. Smaller farmers are also discouraged in terms of state-based procurement due to: **(a)** the requirements of multiple documentation, **(b)** variable quality checks, and **(c)** delay in payments; thereby they find it convenient to sell to traders/large farmers.

Apart from the issues mentioned above, geographically, a weak state procurement infrastructure leads to sub-optimal pricing for farmers in the North and East Indian states. Our interactions with farmers in these states (particularly UP and Bihar) indicated regular sale of major crops such as paddy/wheat at prices c.**30-40% lower than the prevailing MSP rates.**

The difference in procurement is stark across states as highlighted below (for example, 90% of wheat procurement is done in Punjab, Haryana and MP, while they only have a 37% share in production).

Farmers in states such as UP and even in Bihar sell their produce 30-40% below MSP

Exhibit 49. A very skewed distribution of procurement—Punjab, Haryana and MP account for 90% of wheat procurement (37% of production share); UP with 29% of crop production accounts for only 5% of share in procurement



Source: CACP, JM Financial, Note: 23mn tonnes of wheat was procured by FCI in 2016 as of Jul'16 (24.4% of wheat produced)

The current BJP state government in UP has taken up the issue of sale of wheat at MSP+Rs 10/quintal, and if this implementation is successful across state, overall farmer income could see a decent boost in the current Rabi season.

Integration of agri-markets through e-NAM would help unify the agri-commodity trading market

Agriculture marketing in India is administered by the states, and each state is further divided into several market areas; each of these states is administered by a separate Agricultural Produce Marketing Committee (APMC), which imposes its own marketing regulation (including fees). This fragmentation of markets, even within the state, hinders the free flow of agri-commodities and also escalates prices.

The government has also been working on integrating the major agricultural mandis through electronic national agro marketing (e-NAM). e-NAM is a pan-India electronic trading portal, which networks the existing APMC/mandis to create a unified national market for agricultural commodities. It addresses these challenges by: **(a)** creating a unified market through an online trading platform at state and national levels, (b) streamlining procedures across the integrated markets, (c) removing information asymmetry between buyers and sellers, and (d) promoting real-time price discovery.

As of Apr'17, 417 markets from 13 states have been integrated with e-NAM, and by Mar'18, the target is to integrate 585 regulated mandis across the country.

Exhibit 50. State-wise agri-mandis connected on e-NAM (03Apr'17)

State	No. of Mandi	% of Mandis connected to e-NAM
Uttar Pradesh	66	15.8%
Madhya Pradesh	58	13.9%
Haryana	54	12.9%
Maharashtra	44	10.6%
Telangana	44	10.6%
Gujarat	40	9.6%
Rajasthan	25	6.0%
Andhra Pradesh	22	5.3%
Jharkhand	19	4.6%
Himachal Pradesh	17	4.1%
Chhattisgarh	14	3.4%
Odisha	9	2.2%
Uttarakhand	5	1.2%
Total	417	100.0%

Source: PIB, JM Financial

e-NAM expands the scope of trading for current Mandis

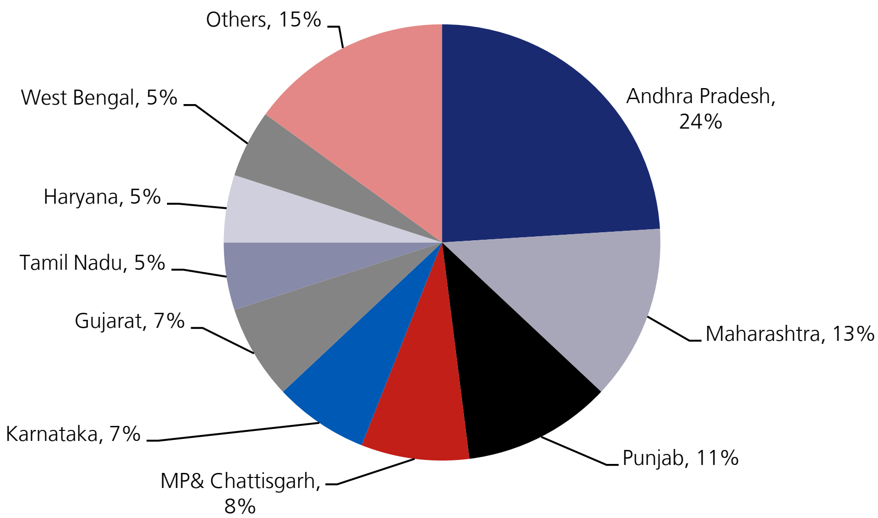
A relatively recent initiative, but e-NAM has potential to significantly increase the scope for Mandi trading across states

e-NAM is not aimed at replacing existing mandis, but provides additional platform for a farmer/trader to transact. The farmer continues to bring his produce at a mandi; during the auction, local traders as well as traders logged in through e-NAM can participate and provide their quotations. In case the produce is bought by the trader at e-NAM, the transaction charges and fees are still to be paid to the local mandi, where the trading has happened. Therefore, the e-NAM platform expands the coverage for an existing mandi, and thereby we did hear overall positive feedback on the move, though it will take a few quarters for trading to scale on the platform (rolled out in 200 mandis from Sep'16). As of early Apr'17, 3.98mn farmers have traded commodities totaling Rs150bn on e-NAM.

(D) Increase in reach and access of agri-inputs

Among the key concern of farmers, lack of quality seeds and access to quality agri-inputs rank among the highest impediments to improvement in productivity levels. This problem is accentuated in the North and East Indian states, where the supply chain of agri-input delivery is much less developed, as compared to West and South India. This is also reflected in the share of usage of agro-chemicals by states—AP, Maharashtra and Punjab (three states) account for c.50% of the total agro-chemical usage in India. The higher share of agro-chemical usage in few states is also reflective of the crop (cotton), but we believe an improved supply chain can result in higher usage across states.

Exhibit 51. State-wise sale of agro-chemicals in India; 50% sale only in three states—states such as UP and Bihar have single-digit share in agro-chemical use (categorised in others)



Source: CMIE, JM Financial

Andhra Pradesh, Maharashtra and Punjab account for c.50% of agro-chemical usage of the country

Lack of awareness about modern farming practices and access to agro-chemical shops aggravate the problems for the smaller and marginal farmers. It is surely not an easy task to build access across c.0.65mn villages all over India; it therefore remains a medium- to long-term task to build the supply chain. **On a positive note, we did experience clear awareness about the use of agri-chemicals to increase productivity in eastern India and look forward to see a steady increase in demand from these regions**.

Exhibit 52. Co-operative societies provide farmers inputs, but quality and timelines vary widely across states

Source: JM Financial, Rural Safari

Exhibit 53. A sample of seeds supplied from a farmer co-operative society

Source: JM Financial, Rural Safari

There are a number of government agri-input stores, which do provide access across regions. However, we did hear concerns among a section of farmers around quality and timeliness. **An overhaul of the agri-input delivery could go a long way in improving the country's crop yield.**

Box 3: Poor reach of agri-inputs across villages in Uttar Pradesh

We interacted with multiple players in the agri-input supply chain and wanted to understand some key constraints for lack of availability of quality inputs for the average farmer. The first and foremost is the required wide-spread footprint of 0.65mn villages across the country, which is difficult to reach for branded players, and thereby are served by local/regional manufacturers.

In many states, there is uneven distribution of agro-chemical usage across villages based on the income levels and accessibility of village. This distribution eventually leads branded companies/dealers/distributors to focus on the major villages, which contribute a big share of revenue. For example, if a branded company has 10 employees in a district with 250 villages, the employees focus on spreading and managing their products in the top 20-30 villages of the district, which provides them larger revenues.

Quality and branded agro-chemical distribution is limited in Eastern Parts of the country

Hence, villages with relatively lower income/land usage continue to depend on products from local manufacturers. These unorganised agri-input manufacturers provide a 35-40% commission to retailers, against the c.10-15% by organised players, and thereby the local retailers/dealers are incentivised to sell products from unorganised players to farmers.

Therefore, we believe, the access of quality agri-inputs to farmers will only gradually improve if major changes are undertaken to ensure access by the government/industry.

Exhibit 54. An agri-input dealer in Chandauli District, UP

Source: JM Financial, Rural Safari

Exhibit 55. Marketing by unorganised player in Chandauli

Source: IJM Financial, Rural Safari

Soil health cards to optimise usage of agro-chemicals

The government has focused on implementing the soil health card scheme (SHC) with an aim to assist all state governments to evaluate the soil status in all farms across the country and issue soil health cards to farmers regularly in a two-year cycle. Soil health cards provide information to farmers on the nutrient status of their soil along with recommendations on appropriate dosage of nutrients to be applied for improving soil health and fertility.

India has 1,087 soil testing labs with the capacity of testing 1.4mn samples per month or 16.5mn samples per year. As per government data, 27.9mn samples have been collected and

65.2mn SHC have already been dispatched across the country over the past two years (90mn agri-households).

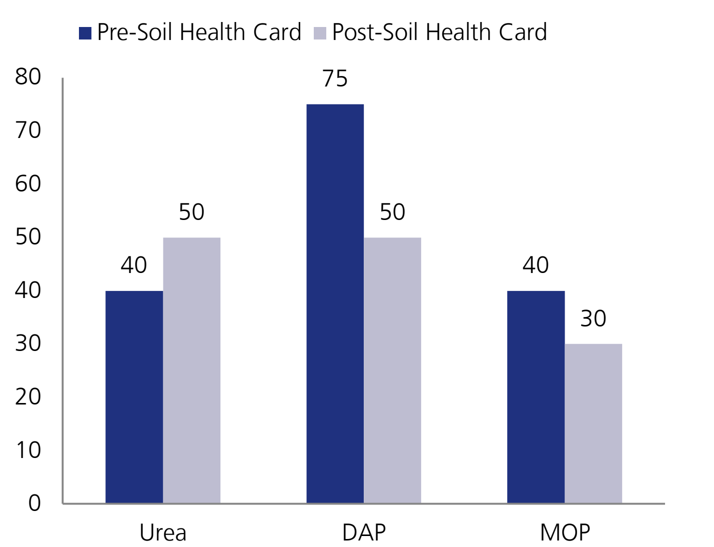
Our interactions with farmers across the country elicited mixed reactions on the scheme implementation, and we gauge the scheme would slowly become popular as farmers realise the benefits of proper usage of agro-chemicals. It is also required that the testing labs continue to upgrade their technology and provide samples at more granular levels (at present few samples are taken from a village and the whole village/area is given the sample results).

Box 4: Benefits from optimum usage of fertilizers

We interacted with a farmer in Bihar, who modified the usage of fertiliser mix after getting his soil checked and receiving the soil health card. The new recommended mix enabled him to save on his input cost of fertilizers (c.22%) and also improved productivity levels (wheat). The NPK ratio changed from 6/7/1 to 6/5/2 in the usage for the farmer. We believe, as more and more farmers realise the benefit, the usage of agro-chemicals would aid in improving productivity.

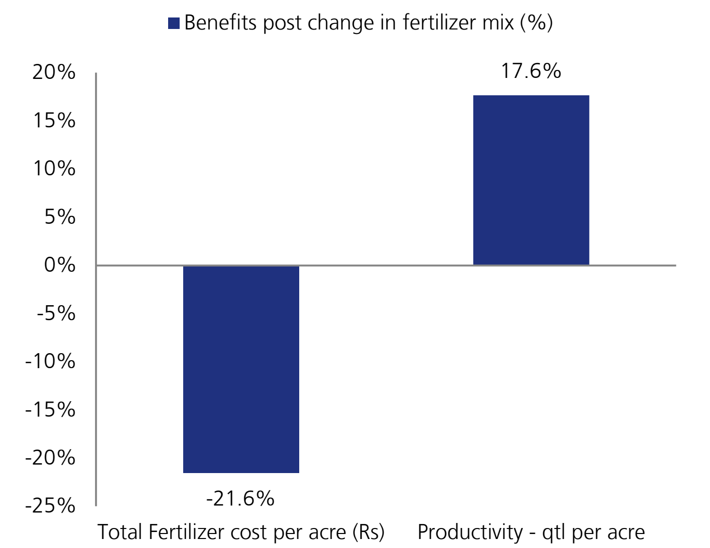
We did hear instances of benefits accruing to farmers after changing the usage of agro-chemicals post soil testing

Exhibit 56. Change in usage of fertilizers per acre suggested after soil check (wheat)



Source: JM Financial, Rural Safari, Note: DAP: Di-Ammonium Phosphate, MOP: Muriate of Potash

Exhibit 57. Estimated benefits from change in fertilizer mix



Source: JM Financial, Rural Safari

(E) Diversification in farming and potential from contract farming

As we interacted with more and more farmers across the country, we also witnessed diversification in farming such as shrimp farming, layer farming (eggs) and pisciculture (fish). However, these require large upfront investments and thereby large farmers (10acre+) would be able to participate initially. We believe as awareness and availability about alternative farming improves, more farmers would diversify, which would lead to improvement in their income. State governments do support farmers in expanding the scope through varying subsidies across states—for example, a 50% subsidy is provided for polyhouses (controlled environment for farming) in MP.

Exhibit 58. Use of polyhouse-based farming in MP: Investments in range of Rs 1-2mn

Source: JM Financial, Rural Safari

Exhibit 59. Shrimp farming in Haryana: Investment of Rs 1mn+

Source: JM Financial, Rural Safari

We also investigated the area of contract farming, which has the potential to improve the average farm income as well as reduce the price and volume off-take concern for an average farmer.

Under contract farming, bipartite agreements are made between the farmer and the company; the latter contributes directly to the management of the farm through input supply as well as technical guidance and also markets the produce. **Our interactions indicated guidelines and regulations need to be strengthened for increased adoption of contract farming in India. The government is already working to bring out a model contract law in consultation with the states.**

A model contract law is likely to expand the contract farming adoption significantly, as there is recognition of its benefits across farmers

PepsiCo was one of the earliest promoters of the contract-farming model in India. In 1997, it set up a tomato processing plant in Punjab, and started tying up with local farmers to grow tomato varieties needed for ketchup. Although PepsiCo has since exited tomato processing, it still works with 12,000 farmers, primarily to procure potatoes for potato chips. Other companies, which practice contract farming in India, are Rallis India and HUL for wheat, Appachi Cotton Company for cotton, Ugar Sugars for sugar, and LT Foods for Basmati rice, among others.

Sustainable farming example – Improves quality, yield and thereby raises income for farmers

We also came across initiatives undertaken by companies in the agricultural industry, which result in a better income for farmers through increased productivity, higher remuneration and sustainable production methods. **A number of initiatives can be easily replicated by government agencies to improve their delivery to farmers.** LT Foods, incorporated in 1990, is a global branded foods company with more than 85% of revenues (FY16: Rs 18.4bn) from the basmati rice segment. Two of its basmati rice brands—'Daawat' and 'Royal'—are market leaders in India and the US.

Box 5: Contract Farming and benefits: LT Foods' initiative on sustainable farming aids in farmer income growth

LT Foods is also encouraging farmers to go for environment-friendly techniques, under its initiative of Sustainable Rice Production (standards as in www.sustainablerice.org). LT Foods apart from procuring rice directly from agri-mandis, also procures rice under the contract farming mechanism in Haryana and MP. Under the contract, the farmer undertakes farming activities as suggested by the company with regard to sowing seeds, applying inputs and usage of agri-inputs, besides others.

Exhibit 60. Farmers' Advisory Centre at Kaithal, Haryana

Source: JM Financial, Rural Safari

Exhibit 61. LT Foods trains farmers for sustainable farming practises

Source: JM Financial, Rural Safari

We visited the Haryana centre at Kaithal district, where the company procures basmati rice produced on sustainable basis from 1,600 farmers (c.16,000 acres). The centre we visited at Kaithal has 12 field employees and they manage 20 villages with around 6,000 acres of farm. The field employees of LT Foods meet each farmer once a week and closely follow the farming progress and solve/provide guidance on any farming-related issues. The key areas of advice provided to farmers are as below:

Programs such as those done by LT Foods should be taken on a broader basis by Government

Exhibit 62. Key areas of knowledge dissemination to farmers

Area	Details
Fertilizer Management	(a) Training about fertilizers and soil at the Farmer Advisory Centre (b) Soil testing done at govt labs (c) Water testing of the farms (d) Encouragement of rotation between crops to balance out soil quality
Water Management	(a) Laser levelling of field (Rs 1,000-1,200/acre rental cost) (b) Installation of underground pipes (earlier kucha pipes) (c) Increased usage of ALWD pipes (alternate wet and dry pipes)
Pest and Disease Management	(a) Plan protection schedule is provided, (b) Protection materials are provided from the Farmer Advisory centre
Pre- and Post- Harvest Management	(a) Timelines for harvest in a scientific manner (b) Encouragement of manual harvesting to maintain quality (c) Overall project management

Source: JM Financial, LT Foods

We received encouraging and positive feedback from farmers associated with LT Foods and believe similar intervention and initiatives are needed to improve the farming practices and farmers' income in the country. **Currently, farmers are assured of off-take, get Rs 50/quintal extra and also use efficient farming methods, leading to higher yields than earlier.**

Non-farm income growth to accelerate in FY18

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.

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. We expect non-farm income to accelerate in FY18, benefited by the government's thrust on rural spending, infrastructure creation and irrigation spending.

Rural/agriculture spending: A key focus area in the Union budget 2017-18

Non-Farm income has gradually become almost 60% of agri-household income

During the 2017-18 Union Budget, there was re-iteration of the government's effort to double farmer income (by 2022); multiple measures have been announced to improve rural housing, job creation through rural employment guarantee scheme (MGNREGA), credit uptake and to improve insurance coverage (from 30% in FY17 to 50% by FY19).

Exhibit 63. Some steps taken for agriculture/rural areas in the Union Budget

Measures	Details
Increase in agricultural credit	Target for agriculture credit raised from Rs 9tn in FY17 to Rs 10tn in FY18
Support NABARD for computerisation of agri. credit societies	63,000 functional primary agricultural credit societies with core banking system of district central co-operative banks
Increase in coverage under Fasal Bima Yojana	From 30% of cropped area in FY17 to 40% in FY18 and 50% in FY19 A provision of Rs 90bn is made for the same
Augmentation of the Long-Term Irrigation Fund set by NABARD	Corpus to be doubled to Rs 400bn
Dedicated micro irrigation fund in NABARD	Initial corpus of Rs 50bn
Expansion of coverage of e-NAM	From 250 markets to 585 APMCs Assistance of up to Rs 7.5mn to be provided to every e-NAM
Model law on contract farming	To be prepared and circulated among the states for adoption
Dairy processing and infrastructure development fund set up	Fund set up in NABARD with corpus of Rs 20bn and to be increased to Rs 80bn over three years
MGNREGA allocation increased	FY17 allocation increased to Rs 475bn from budget estimate of Rs 385mn FY18 budgetary allocation retained at higher levels (at Rs 480bn); I

Source: Union budget, JM Financial

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

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

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

Exhibit 64. Outlay on central schemes

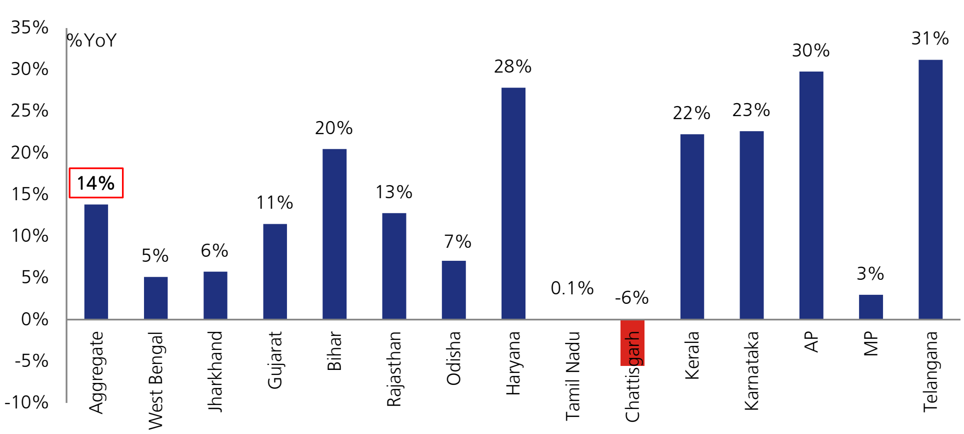
	Allocation – Rs bn				YoY (%)			
Schemes (Rs bn)	FY16	FY17BE	FY17RE	FY18BE	FY17 BE	FY17 RE	FY18 BE	FY16-18 BE -CAGR (%)
MGNREGA	373	385	475	480	3.1%	27.2%	1.1%	13.4%
PMAY: Rural	101	150	160	230	48.3%	58.2%	43.8%	50.8%
National Rural Health Mission	183	181	195	212	-0.9%	6.6%	8.9%	7.7%
Pradhan Mantri Gram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

Source: Union Budget, JM Financial

A clear focus on rural spending by the states

We studied the budgets of state governments for FY17-18; for the 13 states covered, the capital expenditure growth in FY18 at 25% YoY is much ahead of the 10% YoY growth for revenue expenditure. The states spending on capex is typically 1.6x that of the centre. **The main beneficiaries of capex by the states are social services such as water supply, sanitation, housing and urban development, and education. Rural-related spending (rural roads, rural housing, irrigation, agri and allied activities) also continues to be strong with 14% YoY growth in the budget.**

Exhibit 65. A clear focus on rural spending across states—14% YoY across 14 states



Source: State budgets, JM Financial

Rural spending growth for the aggregate of 14 states continues to be ahead of the Union Budget's 11% YoY

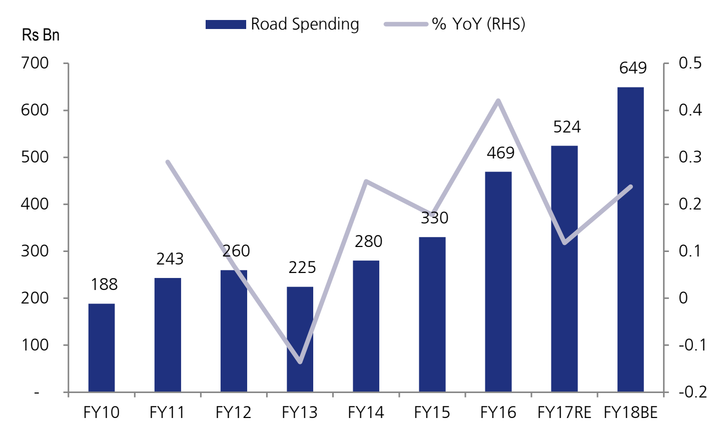
Road construction momentum remains strong

The National Highways Authority of India (NHAI) continues its order-momentum in the road sector, since the slump in the late 2013. The order momentum is expected to continue, however, the order-mix is significantly changing away from Engineering Procurement and Construction (EPC) and Build-Own-Transfer (BOT) to Hybrid Annuity Model (HAM) with HAM increasingly being sought to relieve the developers of the funding constraints. Together with the ministry, the total road sector targets are expected to touch 12-13,000 kms (with a total project-worth of Rs 3.1tn) in FY17 and is expected to maintain similar momentum (if not higher) in FY18.

The momentum on rural road construction continued to be strong and 47.350 kms of roads were constructed during FY17, which is highest over the past seven years. Road construction and expansion did come across as an area of activity for us during our recent visits. A continuation and acceleration in roads construction augurs well for non-farm income as well. We also witnessed installation of solar power and wind turbines in Gujarat/Punjab and MP, in particular.

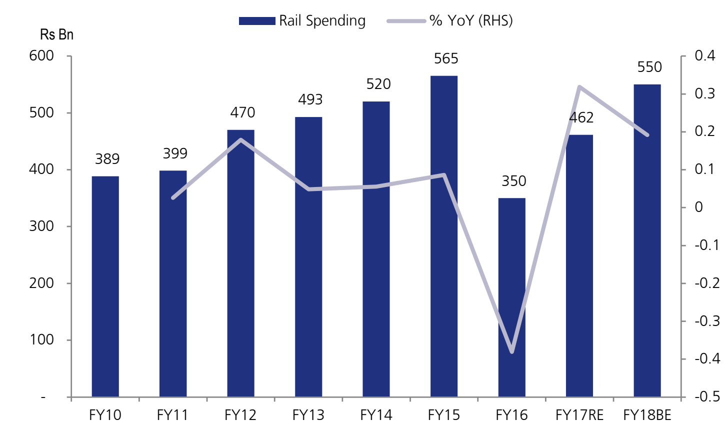
Investments in roads continued to be the most visible infrastructure activity during our Rural Safari

Exhibit 66. Road spending to increase 24% in FY18



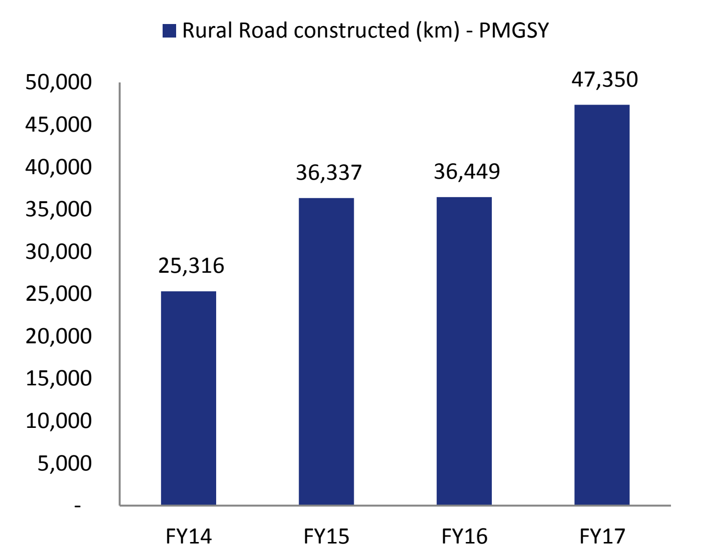
Source: Union budget, JM Financial

Exhibit 67. Rail spending to increase 11% in FY18



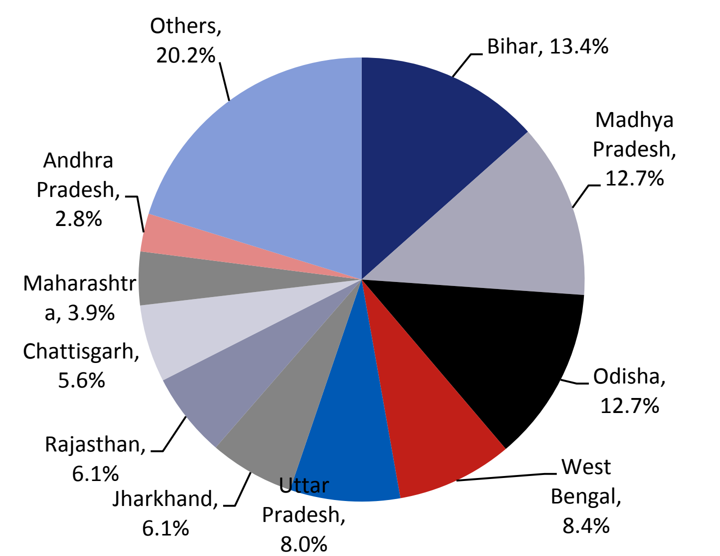
Source: Union budget, JM Financial

Exhibit 68. Rural road construction up 30% YoY in FY17, momentum expected to remain strong in FY18



Source: PIB, JM Financial

Exhibit 69. Target road construction by states during FY17—Bihar, MP, Odisha, WB and UP account for 55% of new roads



Source: PIB, JM Financial

Exhibit 70. Road construction in rural areas of Karnataka

Source: JM Financial, Rural Safari

Exhibit 71. Road construction in Punjab

Source: JM Financial, Rural Safari

Exhibit 72. Flyover construction in Patna, Bihar

Source: JM Financial, Rural Safari

Exhibit 73. Sand mining activity broadly resumes

Source: JM Financial, Rural Safari

Exhibit 74. Installation of large wind power turbines in MP

Source: JM Financial, Rural Safari

Exhibit 75. Solar power plants put up in Punjab

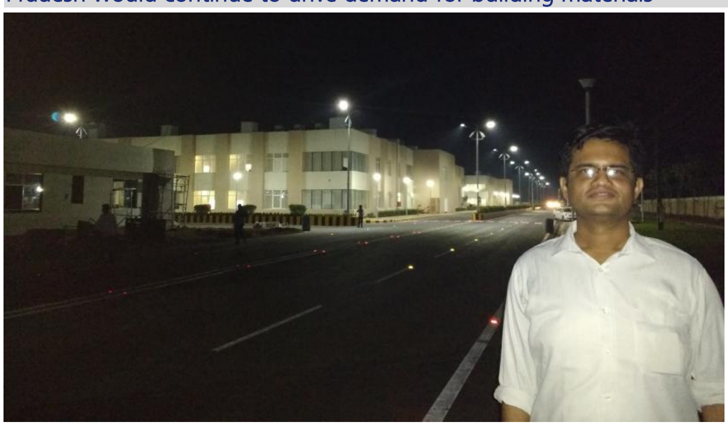
Source: JM Financial, Rural Safari

Exhibit 76. What were our key observations from the states during the rural safari

State	Comments
States with modest infrastructure activity	
Andhra Pradesh	Steady infrastructure work, including that in the capital city of Amravati, however no acceleration from the past year or so
Bihar	Modest and steady infrastructure work, not seen any major acceleration in activities around farm-ponds, irrigation, etc. in a large way
Haryana	Increase in infrastructure activities, particularly the build-out and expansion of roads; among residents, the house-building and construction has resumed
Gujarat	Steady infrastructure work, pond creation and canal work at selected areas; a large part of industrial activity, which had been subdued after demonetisation, is back on normal mode; as the state would head for elections by end of the year, we expect an increase in infrastructure/government projects
Madhya Pradesh	Increase in activities related to agriculture (mandis, transportation, sorting, etc.), but not much visible infrastructure build-out and also new industrial activity; the government remains focused on improving the agri-processing industry and development of MP as a logistics hub, given its central location in the country
Maharashtra	Steady infrastructure activity, not much acceleration seen from past year (last year pond creation activity was quite visible in the Marathwada region during the same period)
Punjab	Modest infrastructure work, expect new regulations for sand mining, agriculture-related non-farm activities visible in the state
Telangana	Steady infrastructure work, projects on irrigation such as Project Kakatia and Mission Bhagirathi continue at normal pace
Uttar Pradesh	High infrastructure creation activity in Eastern UP (highways, bridges, etc.), while selective projects across the state; expectation of pick up in infrastructure build-out with the new state government.
States with low visible infrastructure activity	
Karnataka	Not much visible infrastructure work; earlier lake creation efforts were also not visible
Tamil Nadu	No visible infrastructure activity or acceleration seen in the state

Source: JM Financial, Rural Safari

Exhibit 77. Amravati City at night –Construction of Capital of Andhra Pradesh would continue to drive demand for building materials



Source: JM Financial, Rural Safari

Exhibit 78. Amravati visit

Source: JM Financial, Rural Safari

Housing: A key focus area for government

Affordable housing segment remains the key focus: The government gave infrastructure status to affordable housing in the union budget (FY17-18), which will result in better access to funding (including land funding), longer tenure loans and lower cost of funding.

In addition, tax incentives for affordable projects were made in line with practice, as: 1) size definition changed from built up to carpet; while the government indicated built up area of 30/60 sq. metres for metro/non-metro, respectively, in last years' budget, amendments increase unit size of apartments by 1.4-1.5x (c.42 sq. metres in metros and 85 sq. metres in other regions—built-up); and 2) period of completion of project for claiming deduction increased from existing three years to five years (more realistic timeline in our view).

These clauses will benefit affordable housing players and we expect more players to focus on this segment. In addition, there is a very clear target of building 1mn rural houses by 2019 and total 3mn by 2022 through PM Awas Yojana.

PM Awas Yojana: 44% increase in allocation during FY18, potential to spur demand in rural and semi-urban India

The current central government aims to provide housing for all by 2022—thereby house construction for the homeless and making pucca houses for the dilapidated houses remain high priority. Consequently, allocation for the flagship rural housing scheme—**PM Awas Yojana (PMAY; erstwhile Indira Awas Yojana or IAY)—has increased from Rs 160bn in FY17RE to Rs 230bn in FY18BE, a jump of 44%**.

Increase in house allocation per household from Rs 70,000 to Rs 120,000 currently

Increase in allotment to a user up from Rs70,000 to Rs120,000 in the new rural housing scheme

The new PMAY scheme: (a) has been made more broad-based, (b) monitoring has been made more stringent (through strengthened MIS reporting), and (c) further process improvements have been made to enhance the implementation. The allocation of households for house construction would now be based on the SEC 2011 survey and from the inputs from local bodies (such as panchayats and tehsil offices). As per the SEC 2011 Survey, there was a **requirement of 39.5mn houses to be made in 2011-12 (out of total 179mn rural households), and by now (2017) that has reduced to 29.5mn.**

Exhibit 79. No. of houses to be built based on SEC 2011 survey

Criteria	No. of houses (mn)
Shelter-less	0.2
Households with zero room	1.2
One room with kucha walls	22.6
Two rooms with kucha walls and kucha roof	15.5
Total	**39.5**
Estimate of houses required at present (2016)	**29.5**

Source: SECC, JM Financial

The grants under PMAY are released by the central and state governments in the ratio of 60:40 (erstwhile 75:25). The only exception is north-eastern and three Himalayan states, where the ratio would be 90/10.

The benefit for house construction has increased from Rs 70,000/household to Rs 120,000 for plain areas and Rs 130,000 for hilly states. In addition, the rural beneficiary can claim Rs 8-12,000 for toilet construction and also c.Rs 18,000 as labour days for house construction.

Exhibit 80. Kucha huts still visible across states and would come under the PMAY scheme

Source: JM Financial, Rural Safari

Exhibit 81. House construction in Chandauli, UP

Source: JM Financial, Rural Safari

Target house construction for FY17 & FY18 at 7.3mn, up 74% from previous two-year target (FY15 & FY16)

Our analysis of the new allocations for the central housing scheme reveals a sharp jump in housing completion targets over the next two years. As of now, the target for new house construction for FY17 & FY18 would amount to a cumulative of 7.3mn houses, which is up 74% from the 4.2mn target during the past two years (FY15 & FY16).

During FY17, the government's focus was on beneficiary selection, streamlining processes and rules of PMAY, and completion of homes under the earlier housing scheme (Indira Awas Yojana). During FY17, a total of 3.2mn houses were completed from earlier schemes and the target for FY17 under PMAY was shifted to FY18.

Therefore, the sharp jump in target for house construction for FY17 & FY18 is likely to propel a strong demand in rural housing (construction and raw materials). The house construction target during FY19 is also likely to be c.3.5mn houses (as the three-year target is 10mn houses).

During FY17, Government was focused on completing projects from earlier housing schemes (1-4 years), developing new processes for PMAY and hence FY18 will see combined house building for FY17+18 targets

Exhibit 82. Targets and completion of new construction—Ministry of Rural Development—average of 60-70% completion over past few years

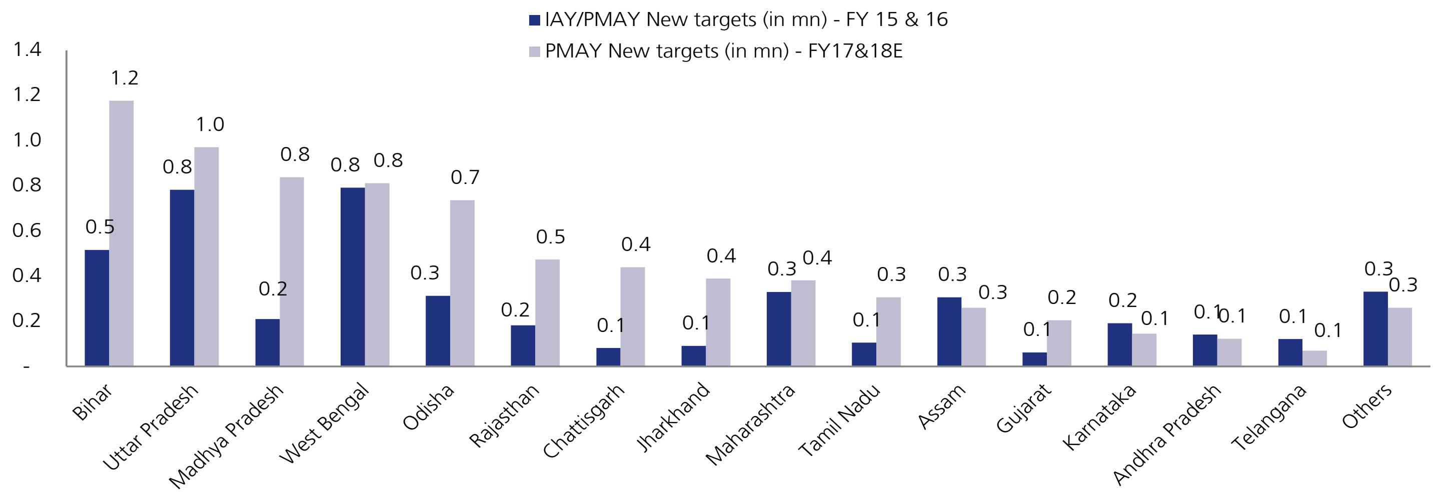
	FY12	FY13	FY14	FY15	FY16	FY17E	FY18E
Scheme	IAY	IAY	IAY	IAY	IAY	PMAY	PMAY
MoRD targets	2.7	3.0	2.7	2.4	2.1	4.4	3.2
YoY (%)		11.1%	-12.4%	-7.9%	-13.3%	105.6%	-25.9%
1st instalment paid	0.8	2.1	2.0	2.0	1.9	1.0	-
YoY (%)		150.1%	-2.9%	1.2%	-8.3%	-46.0%	
Completed and inspected	0.8	1.8	1.8	1.8	1.3	-	-
YoY (%)		127.5%	-0.8%	-1.3%	-23.9%		
Completed and inspected (%)		59.7%	67.6%	72.4%	63.6%	-	-

Source: MoRD: Ministry of Rural Development, JM Financial, IAY: Indira Awas Yojana, Note: During FY17, the focus was on beneficiary selection and improving processes of PMAY, hence the targets of FY17& 18 would be completed in FY18, During FY17, there were 3.2mn houses completed from earlier schemes (1-4 years)

Going forward, the key monitorable would be the completion percentages, which has been in the range of c.60-72% in the past few years. Even at earlier target levels, we are likely to see a sharp jump in demand for housing-related materials in rural and semi-urban regions.

Among states, Bihar is likely to see a sharp jump in allocation and almost all states, barring Karnataka and Telangana (relatively higher pucca houses), would see some decline in targets.

Exhibit 83. Allocation on house-building jumps 73% from FY15 & FY16 to FY17 & FY18—the combined target for FY17 & 18 will be completed during FY18 itself



Source: PMAY, JM Financial, Note: Past allocations on new IAY house targets: FY13 & 14 **(5.3mn)**, FY15 & FY16 **(4.2mn)**, FY17 & 18 **(7.3mn)**

Box 6: Feedback around the housing scheme

Interaction with the Sarpanch of a village in Sehore District, MP

- There is definitely higher emphasis on implementation of the housing scheme. Each year, he used to get 3-4 allocations in his panchayat (180 households with c.30 kucha houses), and this year (For FY18) he has received 10 allocations. Some adjacent villages have got even 25 new cases at one go, which used to have 3-4 on an average.
- The allocation for PMAY in the villages has increased from Rs 70,000 to Rs 120,000 per year.
- The new criteria for allocation of households are the SEC 2011 survey and meeting with the gram panchayat, which freezes the beneficiary list.

A bureaucrat in Bihar

- Though the PMAY scheme had been announced in 2016, project work has started late on completing the beneficiary lists and streamlining processes, thereby clubbing the FY17 and FY18 targets in FY18 itself.
- The base for PMAY is the SEC 2011 survey and then each state has to do their own verification and finalise beneficiaries. Some states are accelerating the process and that would lead to wrong targeting. In this matter, Bihar has taken a calibrated approach with verification of survey data at the local levels.
- The Sarpanch is assisted by one more secretary in the panchayat, who is dedicated for the house construction project monitoring.
- A number of times, it has been observed that the household is not able to complete the house construction due to monetary challenges and therefore is not able to claim full benefits. The government should pro-actively monitor the progress and work to provide aid in such situations, wherein due to income loss the construction has not been able to be completed.

A beneficiary from housing scheme

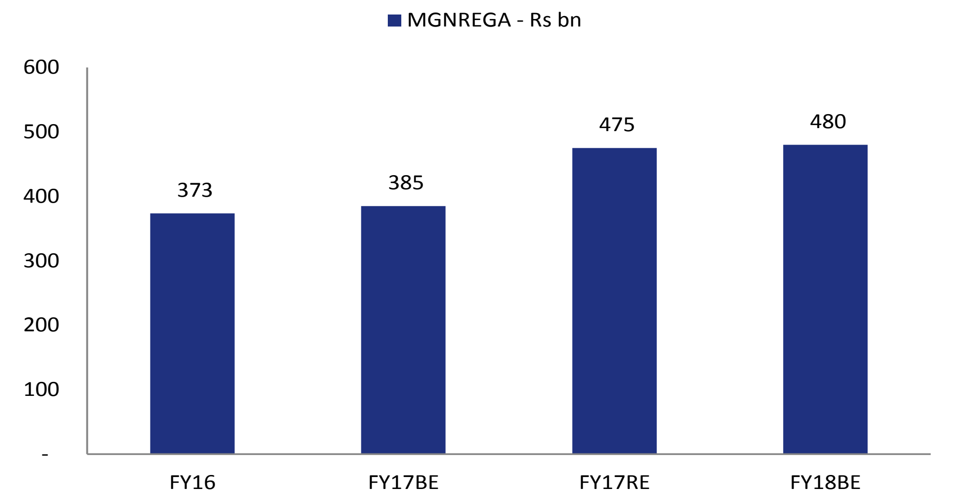
- This farmer in a state in North India received Rs 45,000 around seven years ago for the construction of one room. The money was given in three instalments of Rs 15,000 each. The beneficiary has to submit the photograph of the constructed house to the department. He did benefit from the housing scheme, but also narrated the challenges of obtaining the subsidy.

MGNREGA spending at Rs 480bn in FY18 remains at elevated levels

MGNREGA has been an effective intervention to support incomes for marginal farmers (less than 2.5 acre) and landless labourers. During 1HFY17, on account of drought conditions in many parts of country, demand for MGNREGA increased and thereby the allocation during FY17 went up to Rs 475bn from the budgeted Rs385bn (exhibit below).

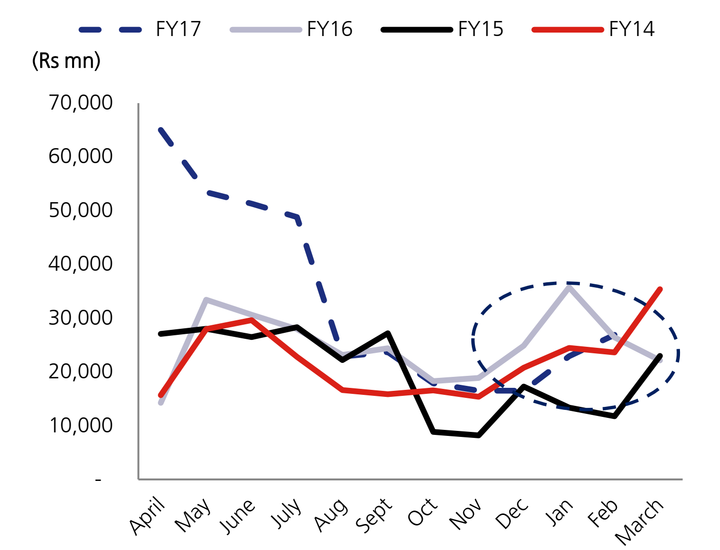
MGNREGA allocation largely flat on YoY basis, but FY17 saw much sharper increase on account of relief for drought measures (150 days benefits in some states compared to standard 100 days)

Exhibit 84. MGNREGA spend at Rs 480bn, largely flattish after increased allocation in FY17



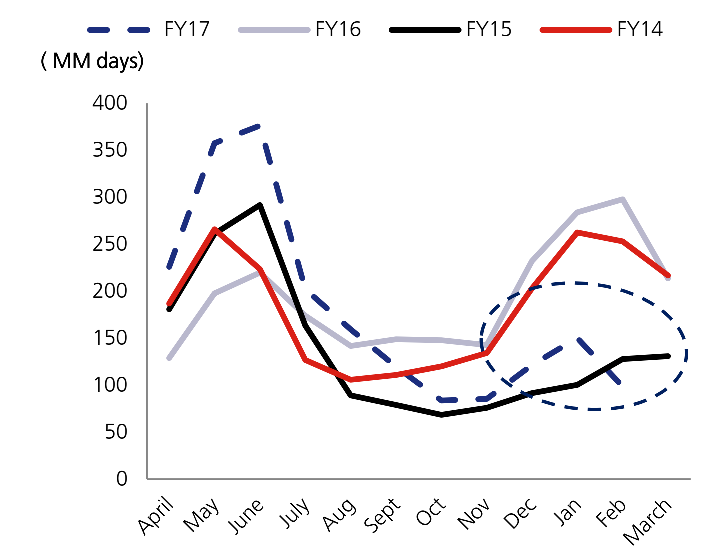
Source: Union budget, JM Financial

Exhibit 85. MGNREGA disbursement trend



Source: MGNREGA, JM Financial

Exhibit 86. MGNREGA person days



Source: MGNREGA, JM Financial

We did hear about delays in payments to labourers in certain states during FY17 (around Oct'16), largely as a result of higher monitoring and improvement in processes. However, during our current visit (Mar'-Apr'17), we did not come across many instances of delayed payment of MGNREGA.

Given the uncertainty around rainfall again during the 2017 monsoon season (FY18), the government has started taking pro-active measures to tackle rural incomes. As per media reports, eight states—Kerala, Rajasthan, Madhya Pradesh, Karnataka, Uttaranchal, Uttar Pradesh, Andhra Pradesh and Tamil Nadu—would be eligible to provide 150 days of manual work per household under MGNREGA in FY18 (standard: 100 days a year).

As per media reports, the centre is releasing Rs 240bn (50% of budgeted allocation in FY18 towards the scheme) in April itself to the states to help prepare for the situation. A key focus area has been water conservation and 65% of the state's funds would be utilised for water conservation efforts. **As per the government, there have been 0.56mn farm ponds built under MGNREGA during FY17 and the target is 0.5mn ponds during FY18**.

Automation: Impacting job growth even in rural India

We also came across instances during the Rural Safari around decreasing requirement for labour in the agro-processing industry due to increased automation.

Box 7: Increased automation reduces job growth opportunity even at rural India

We met a local SME entrepreneur in Ratlam (Madhya Pradesh), who runs an agricultural sorting mill. Ratlam, a district with 0.3 mn population, is highly dependent on agriculture and the district headquarter can be called a typical small town.

Automation is reducing job growth opportunity even in Rural India

The mill sorts agricultural crops such as pulses and wheat (rice during Kharif season) and segregates grains according to purity/colour/damages. The cleaned produce fetches a higher price as compared to unprocessed produce. For example, unprocessed wheat sells at Rs 15-16/kg, while processed ones sell for Rs 17-18/kg.

The entrepreneur set up three mills 10 years ago with investment in the range of Rs 10-20 mn and employed 10-12 people in each of the three mills. Last year (2016), he set up another plant, establishing optical segregating machine from "Sortex" with an investment of Rs 20mn. The throughput of this mill is almost double of the previous machine, but he now needs only two employees (1/6th of previous) for the increased volume of throughput.

Exhibit 87. A crop separation mill

Source: JM Financial, Rural Safari

Exhibit 88. New digital device for sorting produce

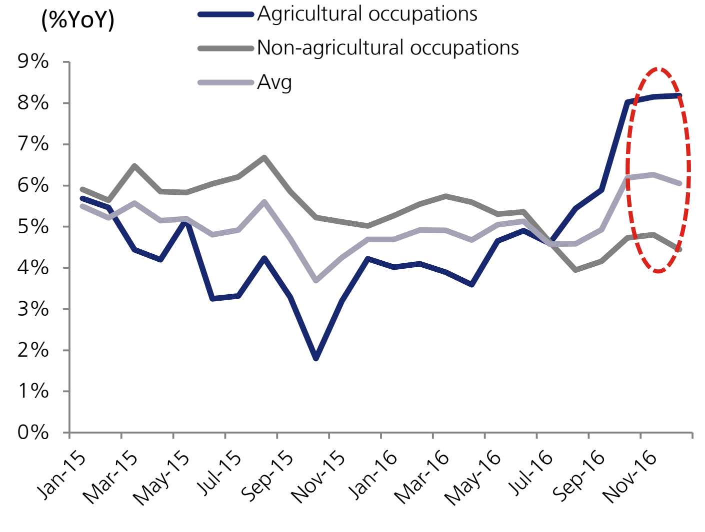
Source: JM Financial, Rural Safari

Rural wage growth has remained modest and continues to increase in mid-single digits, though it has seen slight acceleration from last year's levels. **Unless there is a material increase in industrial activity, we do not expect rural wage growth to accelerate sharply from the current trajectory.**

Exhibit 89. Rural wage growth has seen slight uptick, still remains in single digits

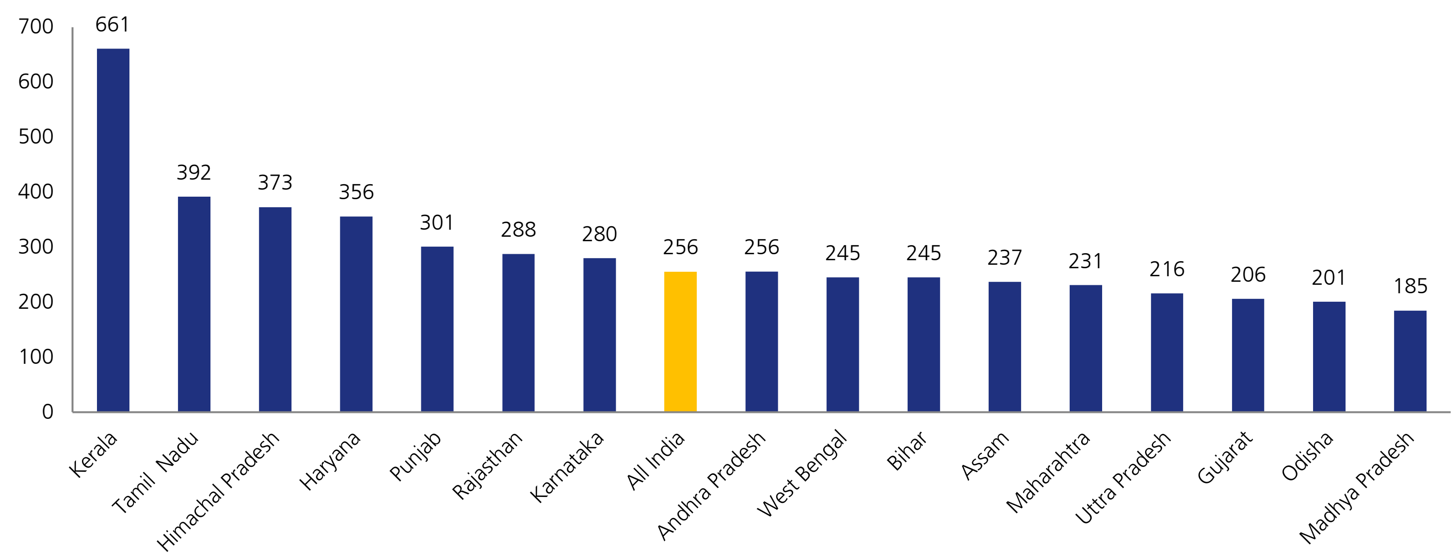
Source: JM Financial, Rural Safari

Exhibit 90. Agriculture occupations saw increase in wage growth in recent periods



Source: JM Financial, Rural Safari

Exhibit 91. Average wage rate by state—wide variation with Kerala wage rates at Rs 661/day, while MP at Rs 185/day

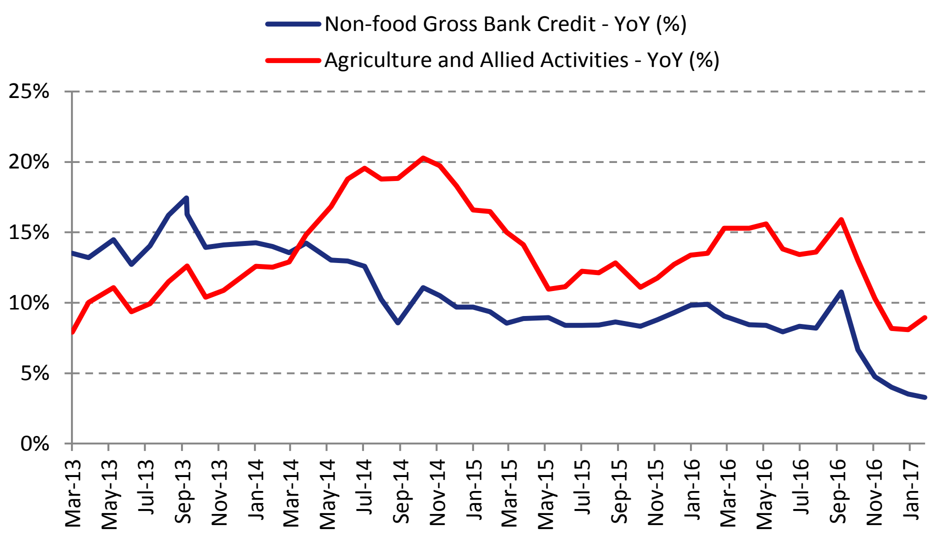


Source: CACP,JM Financial Note: Rural wage rates at of FY16

Credit and investments: Slight uptick in agri-credit growth

Following demonetisation, non-food gross bank credit has languished and run-rate continued to be weak at 3.3% YoY (down from 3.5% YoY in Jan'17). The contraction was driven by the sustained slowdown in large and mid-corporate credit, which suffers from lack of demand, risk aversion and continued disintermediation from corporate bonds.

Exhibit 92. Monthly credit growth trend: After a sharp decline following demonetisation, agriculture credit inches up in Feb'17



Source: RBI, JM Financial

Marginal uptick in agriculture credit during Feb'17

Agriculture credit growth has seen a slight uptick in Feb'17 as compared to Jan'17 at 9% YoY. On MoM basis, there has been some pick up in credit growth to 1.4%, as compared to sustained monthly contraction over Oct-Dec'16. **We expect a sharper rebound in agriculture credit, as the rural economy would restart economic activity as the cash flow situation normalises. However, bankers could be initially cautious of expansion, till concerns on collections abate.**

Farm loan waiver in UP—boost to consumption in near term

The new BJP government in UP announced during Mar'17 a waiver on farm loans up to Rs 0.1mn, taken up to **31Mar'16 by marginal (land-holding of less than 2.5 acres per farmer) and small farmers (less than 5 acres/farmer).** In addition, the waiver also includes 0.7mn farmers, whose bank loans had turned NPA and these farmers were not able to avail banking services. The total outlay for the farm waiver scheme is Rs 360bn, which includes Rs 60bn for the settlement for NPA dues of 0.7mn farmers

Farm waiver in UP will likely result in consumption boost in short-term, Limited beneficiaries from the waiver as cut-off date for loans taken before Mar 31, 2016

Overall, a successful implementation of the farm waiver has potential to enhance consumption sentiment in the state meaningfully, given that: **(a)** the Rabi crop output at present is better than last year, and **(b)** government's intent of providing sale price at MSP+Rs 10/quintal for the farmers. The farm waiver implementation would boost consumption spending at both marginal and mid-farmer level. It is to be noted that formal/institutional rural credit is availed typically by relatively well-off farmers, who will benefit in the case of farm loan waivers.

Exhibit 93. Average agricultural debt across states with the size of agri-household

State	Avg. debt (< 2.5 acre) - Rs	Avg. debt (2.5-5 acre) - Rs	Avg. debt (all sizes)	Indebted agri-households (mn)	Agri-households (mn)	Rural households (mn)	Agri-household as % of rural households	Indebted household as % of agri-households
Uttar Pradesh	19,900	45,700	27,300	7.9	18.0	24.1	74.8%	43.8%
Maharashtra	26,233	45,500	54,700	4.1	7.1	12.5	56.7%	57.3%
Rajasthan	81,967	67,800	70,500	4.0	6.5	8.3	78.4%	61.8%
Andhra Pradesh	134,700	104,900	123,400	3.3	3.6	8.7	41.5%	92.9%
West Bengal	13,333	33,000	17,800	3.3	6.4	14.1	45.0%	51.5%
Karnataka	58,867	98,700	97,200	3.3	4.2	7.7	54.8%	77.3%
Bihar	11,433	34,100	16,300	3.0	7.1	14.1	50.5%	42.5%
Madhya Pradesh	12,067	27,000	32,100	2.7	6.0	8.5	70.8%	45.7%
Tamil Nadu	74,767	120,000	115,900	2.7	3.2	9.4	34.7%	82.5%
Odisha	19,733	18,100	28,200	2.6	4.5	7.8	57.5%	57.5%
Telangana	64,500	103,300	93,500	2.3	2.5	4.9	51.5%	89.1%
Gujarat	14,533	31,100	38,100	1.7	3.9	5.9	66.9%	42.6%
Kerala	174,200	346,700	213,600	1.1	1.4	5.1	27.3%	77.7%
Chhattisgarh	4,700	7,900	10,200	1.0	2.6	3.7	68.3%	37.2%
Punjab	29,767	164,100	119,500	0.7	1.4	2.8	51.1%	53.2%
Haryana	34,133	90,000	79,000	0.7	1.6	2.6	60.7%	42.3%
Jharkhand	3,400	8,500	5,700	0.6	2.2	3.8	59.5%	28.9%
Assam	1,200	6,700	3,400	0.6	3.4	5.2	65.2%	17.5%
Top-19 states				45.5	85.7	149.2	57.5%	53.1%
India	30,133	54,800	47,000	46.8	90.2	156.1	57.8%	51.9%

Source: NSSO, 2013, JM Financial

The number of indebted agri-households in UP was 7.9mn and this farm waiver would benefit the eligible households among the 7.9mn households. However, our discussions indicated a number of farmers renew their agricultural credit (KCC) every year, **so those farmers who have renewed their loans after 31Mar'16 would not be eligible for the farm waiver**. In terms of the exposure of agri-credit, 64% of the KCC loans are outs-standing by commercial banks, 27% by regional rural bank and 10% by co-operative banks in UP.

The total agri-loan outstanding in UP amounted to Rs 818bn (9.3% of country's agri-credit). We would expect increasing demands from other states for farm waivers, which has potential to improve consumption in the short term, but also comes with moral hazard and disrupts credit behaviour. **Our interaction across states has indicated that farmers might delay repaying loans from state-owned banks, but they would ensure debt repayment from other lending channels.** Among states, Tamil Nadu and Maharashtra have higher agri-loan outstanding than Uttar Pradesh at Rs1.1tn and Rs 928bn, respectively.

Exhibit 94. Scheduled commercial banks' credit outstanding (Rs bn) per state (Sep 2016); top-5 states account for 50% of agri-credit and top-10 account for 80% of the credit—Sep'16

State	Agri-cultural credit	SCB agri-credit	Share of total agri-cultural
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, JM Financial

Tamil Nadu, Maharashtra and Uttar Pradesh have the highest credit outstanding in the country

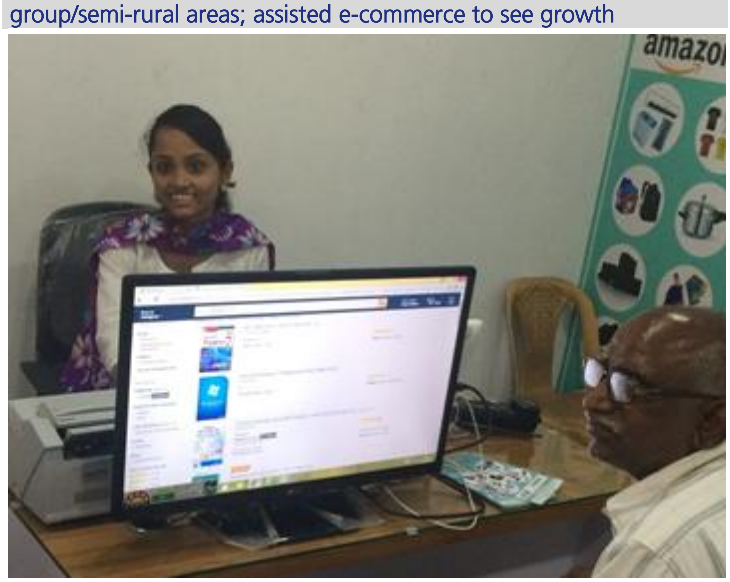
Increased financial inclusion

There has been steady increase in financial inclusion and usage of digital channels after demonetisation. We could clearly see an increase in usage of point-of-sale (POS) machines across medium and small businesses across states.

Exhibit 95. Increase in demand for banking transactions across low income households (Madhya Pradesh)

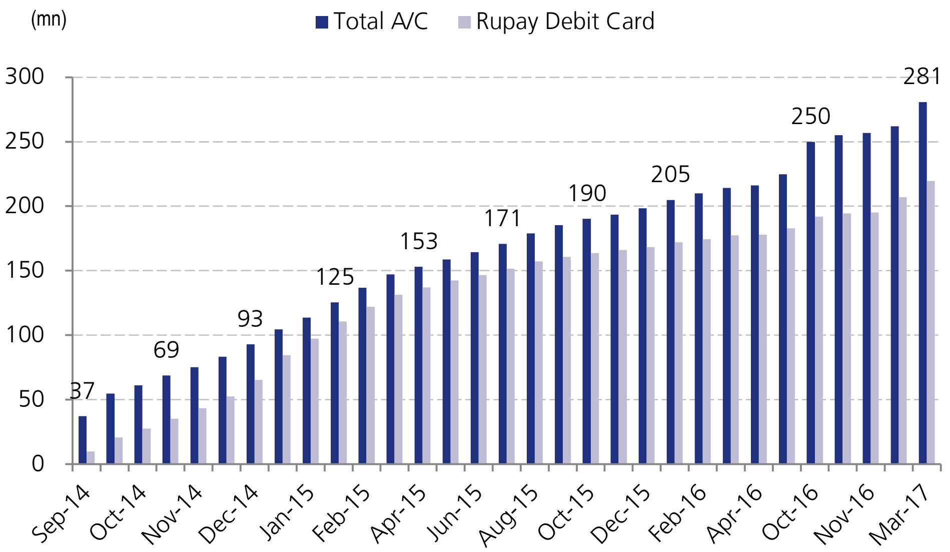
Source: JM Financial, Rural Safari

Exhibit 96. Increase in adoption of e-commerce among low income group/semi-rural areas; assisted e-commerce to see growth



Source: JM Financial, Rural Safari

Exhibit 97. Increase in Jan Dhan accounts improves financial inclusion- 281mn accounts by Mar-17, up from 130mn in Mar-15

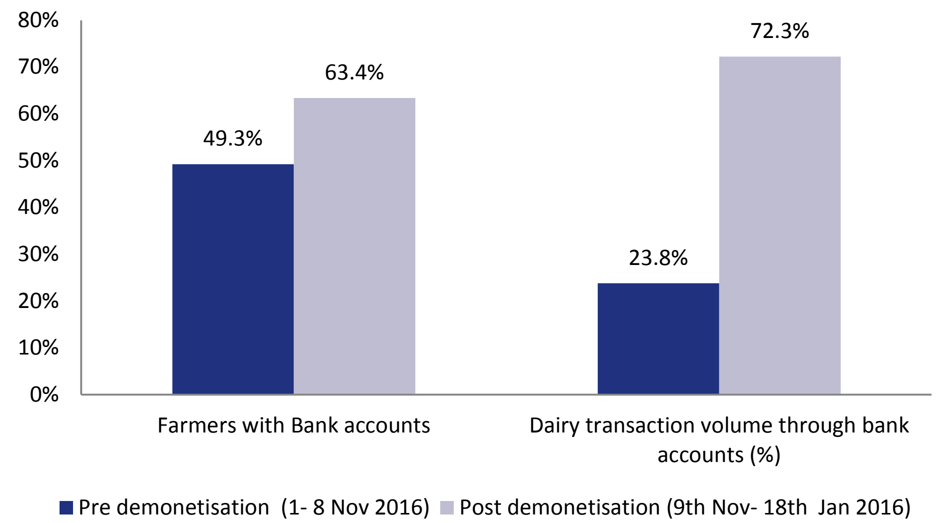


Source: PMJDY, JM Financial

A major shift, which we noticed across our journey, was the shift of salary payments through cheques against earlier practise of cash. Even among farmers, the banking access and usages have increased substantially. As an example (for the country), the percentage of milk producers with bank accounts went up from 49% in early Nov'16 to 63% (over 9mn farmers) by Jan'17, and similarly the volume of transactions from cheques jumped from 1/4th levels of their transactions to almost 3/4th by end of Jan'17.

Increase in banking transactions post demonetisation

Exhibit 98. Increase in banking transactions among farmers: Rise in bank accounts and surge in transactions through bank accounts after demonetisation



Source: PIB, JM Financial

We, however, also witnessed softening in the usage of mobile wallets (such as Paytm/Mobiqwik) by small businesses/vendors as cash circulation has improved by Mar'17. We continue to believe that on an overall level, there will be a clear shift towards usage of banking channels, going forward.

Wealth Effect of Land: Continues to remain weak

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 and remittances have remained subject to downward pressures, as re-affirmed from our recent interaction. 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. As the sentiment was weak on land prices, demonetisation has further impacted transaction volumes adversely across regions. We do believe it will take few months for the land transactions to regain back in volumes

Overall, land prices have remained and expected to be now largely stable with exceptions such as Eastern UP and Bihar, where prices had increased due to fast paced urbanisation as well as relatively smaller land holdings.

The volume of transactions has declined clearly with a lot of speculative sales on hold. In addition, there has been efforts by various states to bring the sales process online and increase transparency, which could impact sales in the near term.

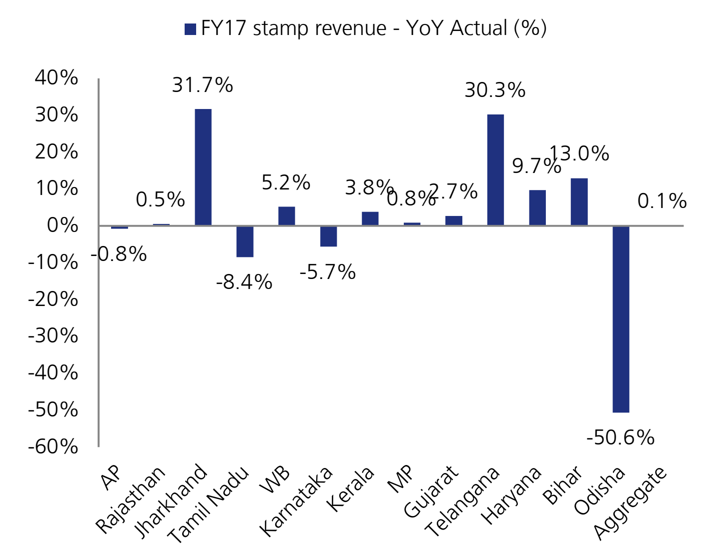
Weak stamp duty collection across states point to weak land transactions during FY17

Real estate transactions have declined post demonetisation

We studied the trend from the state budget around stamp duty collection (2-5% of the state's tax revenues), which is a direct reflection of the real estate activity in the state. During FY17, we saw stamp duty revenue flat on YoY basis, against 15% budgeted by the states. Almost all states, barring Bihar and Odisha, saw a decline in stamp duty collections from their budgeted expectations.

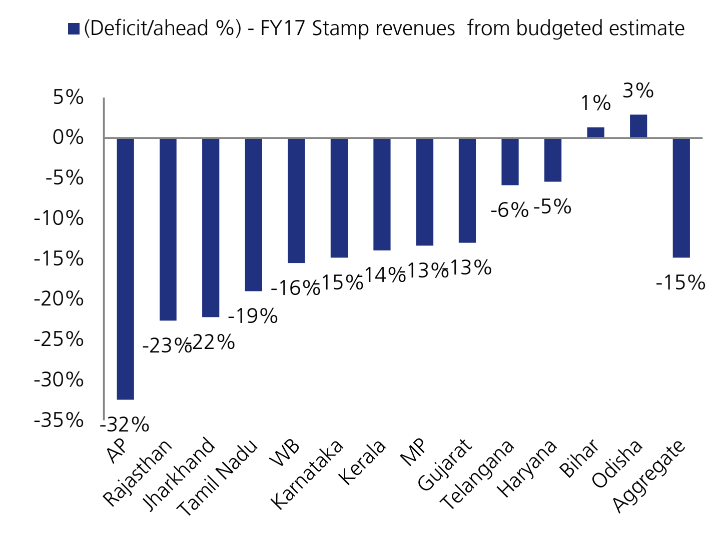
Against a budgeted growth of 17.6% YoY in FY17 for the 13 states in our review, actual revenues were flat. Apart from Bihar and Odisha, all other states' revenues from stamp duty were below budgeted revenues.

Exhibit 99. Real estate remains soft across India; revenue growth from stamp duty by 15 states (reflects real estate activity) was flat



Source: State Budgets, JM Financial

Exhibit 100. (Deficit/ahead) of stamp duty revenue across states from their budgeted estimates



Source: State Budgets, JM Financial

Our feedback across states on land price and transactions trend

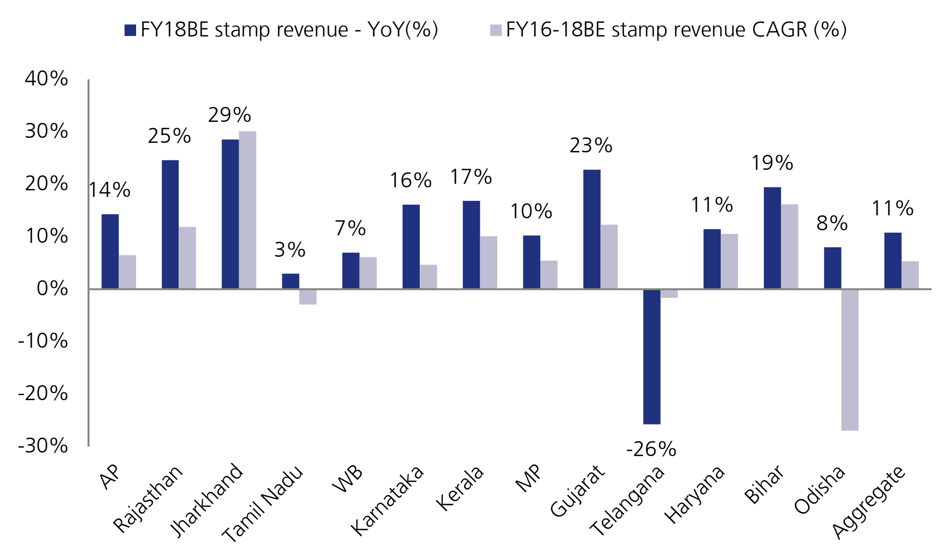
Exhibit 101. Our observations around land prices—Feb/March transaction volumes down across the board, clear trend to emerge in few months

States	Avg. farm-holding size (acres)	Land price trend - YoY	Detailed comments
Punjab	9.3	Stable/Down	Land prices declined during the past three years due to: (a) an increase in cost and legal process of conversion of agri. land to residential land, (b) a rise in registration cost and stamp duty cost, and (c) reduction in speculative sales; prices have largely stabilised after declining over the past 2–3 years
Haryana	5.6	Down	Price correction started approximately two years ago, driven by increased transparency in the system along with a decrease in speculative investments
Madhya Pradesh	4.4	Down	Prices have corrected in the past two years on requirement for a higher share of declared income, weak agricultural output and reduced speculation
Karnataka	3.8	Down	Land prices have now stabilised, but the number of transactions has reduced; weak rainfall and crops have led to downward pressure on land prices
Maharashtra	3.6	Down	Drought conditions had led to pressure on prices over the past few quarters, overall stable outlook with downward bias
Andhra Pradesh	2.7	Stable	Land prices have risen up during the past 2–3 years, aided by the built-up of the new capital Amaravathi; prices have softened and number of transactions have also reduced
Telangana	2.7	Stable to down	Prices have stabilised/down now after demonetisation; earlier, price was largely supported by the large infrastructure projects such as Project Kakatia (creation of water tanks) and Mission Bhagirathi (to provide drinking water)
Tamil Nadu	2.0	Down	Prices have moderated down, weak rainfall since past one year also exerts pressure
Uttar Pradesh	1.9	Stable to modest increase	Steady increase in land prices on urbanisation, low availability of land (small land parcels) and lack of speculative investments earlier; Varanasi, in particular, benefits disproportionately from being the Prime Minister's Lok Sabha constituency
Bihar	1.0	Stable to modest increase	Steady increase in land prices on urbanisation, less availability of land (small land parcels) and lack of speculative investments earlier; situation very similar to Eastern Uttar Pradesh

Source: JM Financial, Rural Safari

Expect wealth effect from land to remain soft in the near term

Exhibit 102. Stamp revenue is projected to report a CAGR of 10.8% YoY in FY18



Source: State budgets, Rural Safari

The 13 states under coverage have budgeted a modest 11% increase in their stamp duty revenues, indicating a modest outlook. A weak land price has adversely impacted the consumption propensity, as we have discussed in our earlier reports and we still continue to see dampened impact from land prices.

Rural income: Expect 10% YoY growth in FY18, small-ticket Consumption to revive

We revisit our model for farmer income and leverage after detailed assessment and analysis from the rural visit undertaken at the end of Mar'17. During FY17, we did see healthy Kharif and Rabi output along with improvement in the quality of produce. However, rural India was impacted adversely in the short-term after the demonetisation of high-value currency notes on 8Nov'16 and the subsequent decline in cash-based transactions.

Reduction in cash transactions impacted income of smaller farmers during Nov-Dec'16

The farmers typically sell their produce in cash, particularly the smaller farmers, and thereby a squeeze in liquidity severely impacted trade during Nov-Dec'16 and till early Jan'17. Consequently, sale realisations for smaller farmers, in particular, were delayed and lower than earlier expectations. In addition, fruit and vegetable farmers (c.10-12% share) had to face a loss in income due to the perishable nature of the produce. The larger farmers also faced challenges in selling produce, but access to banking channels, ability to withhold sales and also access to wider market place ensured minimal losses.

FY17 saw divergence in income growth between and large and small farmer; FY18 to see normalisation of growth

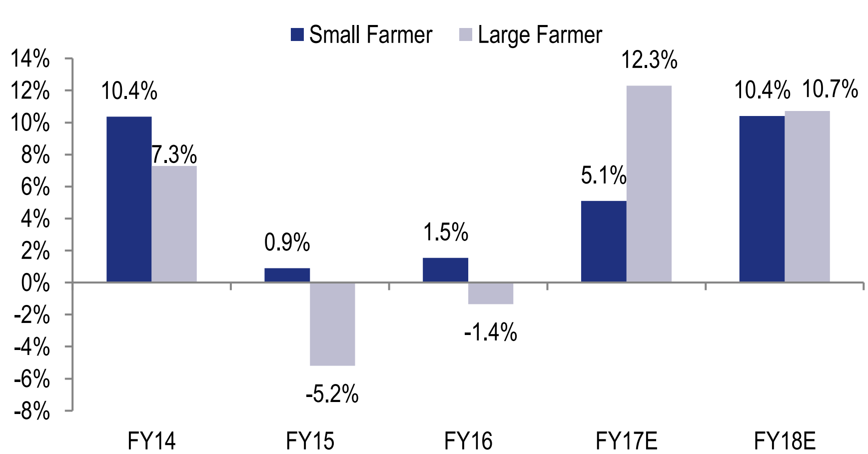
Consequently, we estimate that after two years of decline (FY15 & FY16), FY17 did see an increase in total income for farmers—5% for the small farmer and 12% for large farmers, given a healthy produce during the year. This is driven by 8%/15% YoY growth in agri-income for small/large farmers, respectively, while non-agri. income growth remained at c.3% YoY.

Even among regions, given the distribution of rainfall in the past one year, there is a divergence and we expect farmer income to grow YoY higher in northern and eastern regions as compared to South India.

Expect convergence in total income growth between small and large farmers during FY18

For FY18, we expect broadly normal monsoons (96% of LPA); with the normalisation of liquidity challenges, we expect c.10% YoY growth in income for both small and large farmers. We expect the divergence in growth between a large farmer and small farmer, which was visible during FY17, to normalise during FY18. We expect acceleration in non-farm income, driven by the government's clear focus on rural/irrigation spending and MGNREGA as well as a pick-up of small business activities.

Exhibit 103. FY18 is expected to record similar growth rates for small and large farmers at 10% YoY



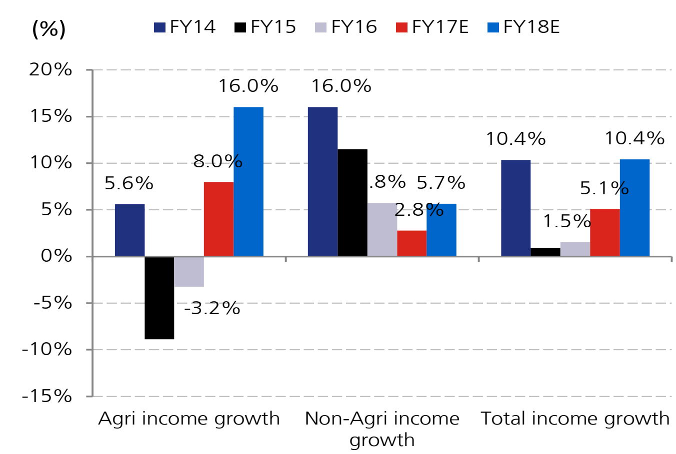
Source: JM Financial

Exhibit 104. A small farmer's income profile

		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 (Rs)	Rs	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	0.68	0.58	0.63	0.63
Adjustment for liquidity	(x)	1.0	1.0	1.0	1.0	0.88	1.0
Productivity	(qtl/acre)	14.9	14.6	14.4	14.4	14.8	14.7
Price	MSP - Rs	1,280	1,345	1,400	1,450	1,510	1,572
Revenue from crop	Rs	13,320	13,762	13,730	12,063	12,331	14,479
By-product	Rs	1,127	1,235	1,222	1,012	970	1,125
Cost	Rs	6,763	7,026	7,074	6,257	7,048	7,291
Rabi crop							
Incidence of crop failure/net crop sown area adjustment	(x)	0.70	0.70	0.68	0.58	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	13.1	13.1	13.2
Price	MSP - Rs	1,350	1,400	1,450	1,525	1,625	1,723
Revenue	Rs	11,918	12,474	10,957	11,487	13,769	14,668
By-product	Rs	2,578	3,025	2,994	2,137	2,432	2,440
Cost	Rs	5,630	5,994	5,905	5,033	5,817	6,117
Annual agri. Income	Rs	44,687	47,186	42,992	41,605	44,920	52,120
Share of non-agri. income	Rs	46%	48%	53%	55%	54%	52%
Wages	Rs	20,736	24,883	28,616	30,762	31,685	33,586
Farming of animals	Rs	9,816	10,994	11,654	11,887	12,124	12,852
Others	Rs	7,116	7,828	8,454	8,876	9,143	9,600
Non-agri. Income	Rs	37,668	43,705	48,723	51,525	52,952	56,038
Total income		82,355	90,891	91,715	93,130	97,872	108,157
Consumption - Rs (yearly)	Rs	77,084	84,793	89,032	90,813	96,262	103,000
Surplus/Deficit (Rs)	Rs	5,271	6,098	2,683	2,317	1,610	5,157
Average debt	Rs	54,800	60,280	63,294	66,459	73,105	80,149
Additional debt (repayment)	Rs					-242	-1,547
Total Debt	Rs	54,800	60,280	63,294	66,459	72,863	78,602
Debt/asset	%	7.5%	7.5%	8.3%	9.7%	11.8%	13.4%
Debt/income	%	66.5%	66.3%	69.0%	71.4%	74.4%	72.7%
Interest	Rs	6,576	7,234	7,595	7,975	9,837	9,825
Interest/income	%	8.0%	8.0%	8.3%	8.6%	10.1%	9.1%
EMI	Rs	15,202	16,722	17,558	18,436	20,969	22,076
EMI/income	%	18.5%	18.4%	19.1%	19.8%	21.4%	20.4%

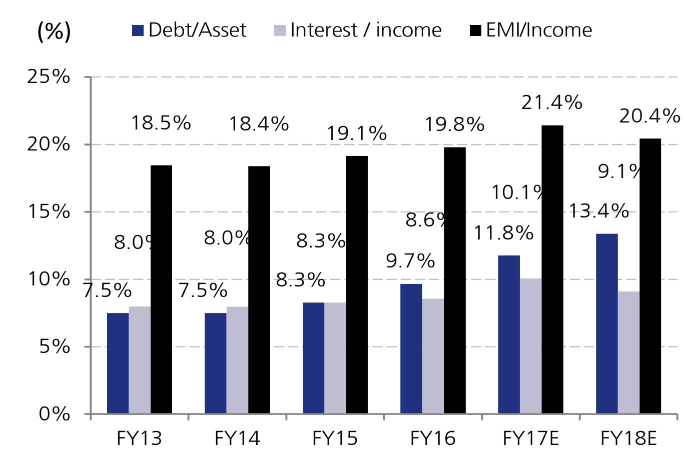
Source: JM Financial, NSSO, Note: The cells highlighted in red indicate NSSO survey inputs

Exhibit 105. Income growth for small farmer



Source: JM Financial, NSSO

Exhibit 106. Leverage for small farmer to decrease in FY18



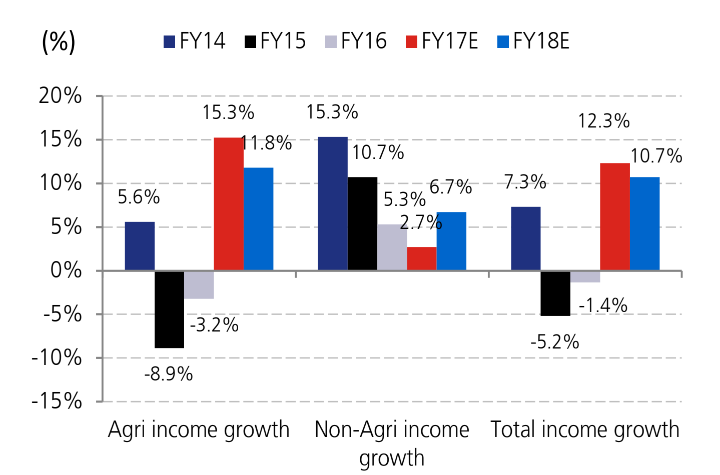
Source: JM Financial, NSSO

Exhibit 107. Large farmer income profile

		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 (Rs)	Rs	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	0.68	0.58	0.63	0.63
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	14.4	14.8	15.3
Price	MSP - Rs	1,280	1,345	1,400	1,450	1,510	1,572
Revenue	Rs	13,320	13,762	13,730	12,063	13,311	15,030
By-product	Rs	1,127	1,235	1,222	1,012	1,047	1,125
Cost	Rs	6,763	7,026	7,074	6,257	7,048	7,291
Rabi crop							
Incidence of crop failure/net crop sown area adjustment	(x)	0.70	0.70	0.68	0.58	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	13.1	13.1	13.2
Price	MSP - Rs	1,350	1,400	1,450	1,525	1,625	1,723
Revenue	Rs	11,918	12,474	10,957	11,487	13,854	14,668
By-product	Rs	2,578	3,025	2,994	2,137	2,447	2,440
Cost	Rs	5,630	5,994	5,905	5,033	5,853	6,117
Annual agri. Income	**Rs**	**248,261**	**262,146**	**238,844**	**231,138**	**266,392**	**297,817**
Share of non-agri. income	Rs	18%	19%	22%	23%	21%	21%
Wages	Rs	24,372	29,246	33,633	36,156	37,241	39,475
Farming of animals	Rs	18,012	20,173	21,384	21,812	22,248	23,583
Others	Rs	10,332	11,365	12,274	12,888	13,275	14,602
Non-agri. income	**Rs**	**52,716**	**60,785**	**67,292**	**70,856**	**72,763**	**77,660**
Total income		**300,977**	322,931	306,136	301,993	339,155	375,477
Consumption - Rs (yearly)	Rs	225,733	252,820	271,782	285,371	299,640	323,611
Surplus/Deficit (Rs)	**Rs**	**75,244**	**70,111**	**34,354**	**16,622**	**39,515**	**51,866**
Average debt	Rs	184,000	202,400	212,520	223,146	234,303	240,245
Additional debt (Rs)	Rs					-11,855	-15,560
Total debt	**Rs**	**184,000**	**202,400**	**212,520**	**223,146**	**222,449**	**224,685**
Debt/asset	%	4.5%	4.5%	5.0%	5.8%	6.5%	6.9%
Debt/income	%	**61.1%**	62.7%	69.4%	73.9%	65.6%	59.8%
Interest	Rs	22,080	24,288	25,502	26,778	26,694	28,086
Interest/income	%	**7.3%**	**7.5%**	**8.3%**	**8.9%**	**7.9%**	7.5%
EMI	Rs	51,043	56,148	58,955	61,903	66,616	67,474
EMI/Income	**%**	**17.0%**	**17.4%**	**19.3%**	**20.5%**	**19.6%**	**18.0%**

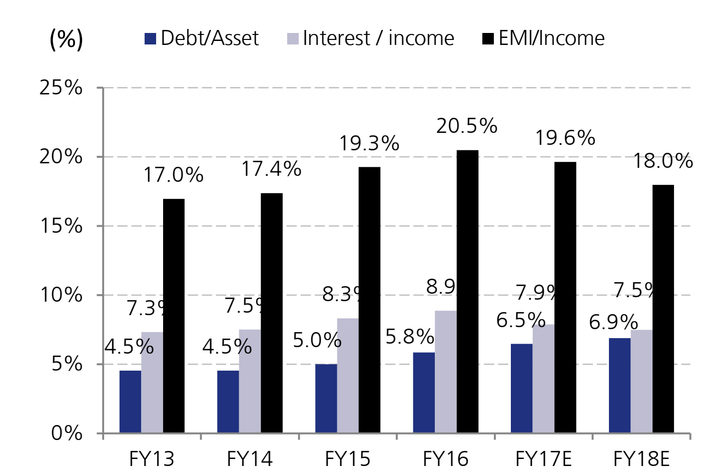
Source: JM Financial, NSSO, Note: The cells highlighted in red indicate NSSO survey inputs

Exhibit 108. Income growth for a large farmer



Source: JM Financial, NSSO

Exhibit 109. Leverage to go down for a large farmer



Source: JM Financial, NSSO

We do estimate that given the change in consumer behaviour driven by demonetisation, the deleveraging would take longer than anticipated. The debt levels, which had increased after demonetisation, have likely reduced as farmers re-paid debts taken from informal channels. However, we do reckon that the farm waivers could induce behaviour of delayed repayments for debt from state-owned banks, in particular. **Consequently, we estimate a moderate improvement in credit metrics in FY18, after deteriorating in FY17 for a small farmer, while remaining steady for the large farmer.**

Consumption of low ticket items set to revive

Consumption sentiment set to slowly improve in rural India post Rabi crop realisations

We do expect consumption of relatively low ticket items to see steady growth, given the increase in rural incomes. **There is still caution on large ticket spending, which would also be on increased scrutiny by the government/IT**. However, as we see the increase in cash flow levels across the economy, we would clearly see demand revival. The key inference we derive from our visits is that the rural economy/farmer status has improved from **"distress"** levels one year ago to a more **"normal level",** and unless the 2017 monsoon is highly deficient, we do not see a hold back in consumption. Even in smaller towns, we could see the increased popularity and acceptance of organised players such as V-Mart Retail Stores.

Exhibit 110. Store on motorcycle: A shopkeeper displaying his products to villagers in UP

Source: JM Financial, Rural Safari

Exhibit 111. Retailers such as V-Mart are likely witnessing good sales trend

Source: JM Financial, Rural Safari

Sector comments

Agri. inputs—Pesticides

As a part of the safari, we visited a number of agri. input dealers across the country to get a sense of: (i) how the demand for pesticides, fertilizers and seeds has changed over the past year, (ii) inventory levels at the end of season, (iii) impact of demonetisation (if any), and (iv) dealer sentiments on demand for the coming year. The findings were as follows:

Exhibit 112. Agri-input shop visit in Haryana

Source: JM Financial, Rural Safari

Exhibit 113. Visit to an agri-input dealer in Maharashtra

Source: JM Financial, Rural Safari

- **Structural growth as more farmers realising importance of pesticides**: Our interactions with dealers suggested that barring the two consecutive years of drought, the past few years has witnessed a structural shift, wherein a rising number of farmers are realising the importance of agri. inputs and are moving towards premium products such as those under the brands of Bayer, Syngenta, Rallis and Dhanuka, among others, despite higher pricing. This phenomenon was more prominently witnessed in states such as MP, Punjab and Gujarat.

- **Higher acreage and yields boost farmer sentiment, leading to improved volumes**: AP, Maharashtra and Punjab account for c.50% of the total pesticide use in India; as per data provided by agricultural cooperative societies, acreage for key crops such as wheat, maize, fruits and vegetables were up in these states. **As per the dealers we met during our visit in all states (except for Karnataka, Gujarat, TN and parts of AP), business was up c.15% YoY.** Furthermore, signs of higher yields at the beginning of the season boosted farmer sentiments, thereby encouraging adequate number of sprays.

Overall volume growth was up by c.15% YoY at the dealers we met during our visit to states (except rainfall deficit areas)

- **Pest/weed incidence partially impacted by healthy soil moisture content**: Our interactions with dealers and farmers, particularly in Punjab and Haryana, suggested that during Rabi due to: (a) good moisture level, and (b) a relatively warmer winter, there was relatively lower incidences of weeds/pests than expected, partially impacting volume growth.

- **Demonetisation impact limited; higher credit sales witnessed:** We observed that the impact due to demonetisation was limited to a period of 15-20 days (November) and since that was primarily the time of Rabi seed sales, it was largely the sales of hybrid fruits and vegetables seeds that took a hit. The dealers spoke about higher share of credit sales (credit sales are usually c.50% of total sales; this went up to c.75% during demonetisation), which was later repaid after cash was back in the system.

Inventory levels have stabilised, sets a good base for upcoming Kharif crop season

- **Inventory levels stabilised:** We witnessed that most dealers were making fresh purchases from companies and the stock, which had been piled up during the beginning of Kharif 2016 after two years of deficit monsoon, had largely been sold. This gave us a positive sense of pesticide sales of agri-chemical companies for the coming Kharif.

- **Expect 12-15% growth for Rabi:** Based on the above feedback, given higher Rabi acreages (partially impacted by lower pest incidence and also factoring in the short-term impact of demonetisation), **we estimate 12-15% growth for the Rabi season for key agrochemical companies, catering to the Indian market.**

Fertilizer subsidy and DBT—a visit to Tumakuru (Karnataka) and Kurukshetra (Haryana) to understand pilot implementation of DBT in fertilizers

During our rural visit, we also visited the Tumakuru, Karnataka and Kurukshetra, Haryana, which are two of the 16 districts, in which DBT in fertilizers is being tested on a pilot basis. We understand that as of now, it is only the installation of POS machines at the dealers' outlets that has taken place. The government has notified that it will implement the POS solution across the country from Jun'17.

Mixed feedback on the pilot implementation of DBT in fertilizers

In the current implementation, the government will continue to pay fertilizer subsidy to fertilizer companies (and not the farmer); the disbursement of subsidy will be made only when the sale is made at the POS, unlike earlier when the fertilizer reached the dealer. Hence, realisation of subsidy amount would get delayed for companies till the implementation of the scheme smoothens out.

In addition, given the on-ground situation of digitising land records, access and usage of financial products, network related challenges, etc., we expect direct transfer of fertilizer subsidy amount to farmers to be a medium-term effort; even a proper sale through POS has the potential to reduce leakages in the subsidy, which is a substantial part of the government's spending.

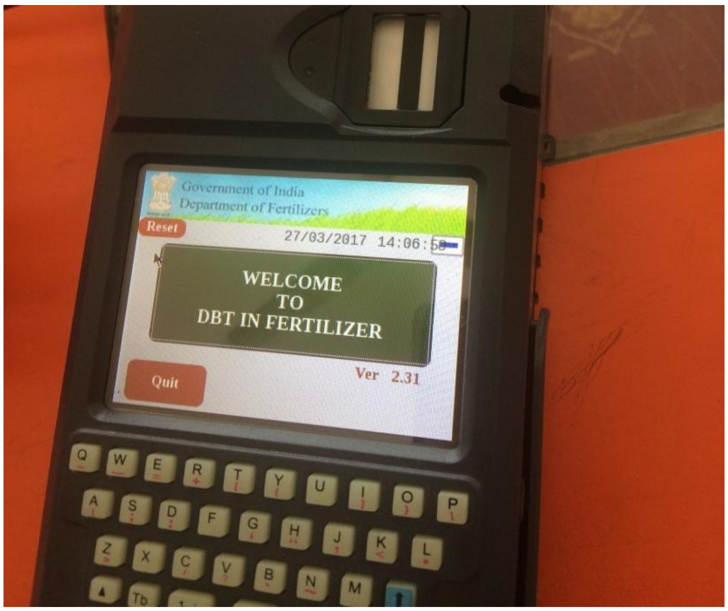
- **Brief background on fertilizer subsidy:** In India, all chemical fertilizers—urea, DAP, MOP and complex N (Nitrogen), P (Phosphate), K(Potash)—are provided at subsidised rates to farmers. In the case of urea, the government fixes the selling price and subsidy on urea is given on cost plus basis. For other fertilizers, selling price varies, but the government gives fixed subsidy per kg of N, P and K produced. Therefore, fertilizers can be classified into two broad categories: (i) controlled fertilizers (selling price controlled by government, mainly urea), and (ii) decontrolled fertilizers—DAP, MOP and NPK complex fertilizers. Under the current regime, **the total subsidy is paid to the company manufacturing/importing the fertilizer once the dealer receives the goods, irrespective of who the dealer sells it to.**
- **Issues with the current system:** There are few problems in the current system, including: (i) illegal exports and diversion to industrial use—the government believes (ref. economic survey) that this accounts for c.40% of total consumption of subsidised fertilizers in India, (ii) about 51% of Indian farmers currently buy above MRP, as multiple middlemen add their commissions, (iii) on the same quantity of urea, subsidy is claimed more than once as there is no way to monitor leakages, and (iv) since there is no check on the end use of fertilizers, farmers tend to overuse urea (as it is cheaper compared to other fertilizers).
- **The new proposed mechanism:** (i) POS machines will be installed at every dealer with fingerprint scanners; (ii) POS machines will be linked to Aadhaar cards, which will be further interlinked with land holding records of the farmer as well as soil health cards provided to every farmer; (iii) farmers will have to buy fertilizers at full amount and subsidy will be paid to them through their linked bank accounts; and (iv) disbursements will depend on eligibility of a farmer based on land holdings and farmers' soil quality (tested by soil health card), thereby implying farmers may not get subsidy if they are overusing urea.
- **Implementing the proposed mechanism in phases**: In our interaction with dealers, we were informed that currently POS verification machines (which can validate Aadhar number) have been installed, but it is not mandatory for farmers to bring Aadhar cards. Thus, the time is being used to make it a habit for farmers to bring the Aadhar card, when buying fertilizer. In the next phase (likely from Jun'17), Aadhar will be mandatory

for buying fertilizer and the subsidy will be released at the POS to the farmer (as against current practice of releasing subsidy on sale to dealers).

In the above areas, current status is as follows:

- POS machines have been installed by all dealers in the pilot district.
- It is not "yet" mandatory to use the POS machine for sale.
- There is no change as of now in the subsidy regime. However, any move towards DBT (full amount paid by farmer and later on receiving subsidy in account) without adequate pilots across districts is fraught with disruption at the farmers' level (small and marginal end). For instance, in the receipt below, the farmer bought fertilizer worth Rs 18,420 and paid only Rs 4,607 (25% of the bill) upfront and rest was on subsidies. Hence, any change to the existing payment system for farmers would increase their working capital requirements significantly.

Exhibit 114. POS machines installed at fertilizer shops



Source: JM Financial, Rural Safari

Exhibit 115. Payment process in the current implementation—the subsidy amount is still paid directly by the government to companies

Source: JM Financial, Rural Safari

What will happen from 01Jun'17

- Subsidy will continue to be paid to the company (not the farmer). However, the company will receive the subsidy **only when sale is made (i.e., subsidy will not be paid if it is lying with the dealer).**
- Linking of machines with land-holding records and soil health card will slowly commence. It is only after this that subsidy will start being paid to the farmer, a medium-term possibility.

Some challenges during implementation—need for increased broadband network availability, digitised land records and increased working capital requirement for a farmer; details as follows:

Key areas which needs to improve – (a) network connectivity, (b) digitisation of farm records and mapping with Aadhaar

- After mandatory implementation of subsidy, a farmer will have to pay out much higher amounts than at present; this would be a challenge **and would increase the credit level for the farmer (either at dealer level or from local moneylenders).** For example, for a urea bag, the farmer now pays Rs 300/bag, and in the DBT regime he will be paying Rs 1,725 per bag and then would have to wait for few weeks at least to get the subsidy amount in his account.
- POS machines only function when there is net connectivity. Lot of dealers are located in remote villages, where there is no net connectivity at present.

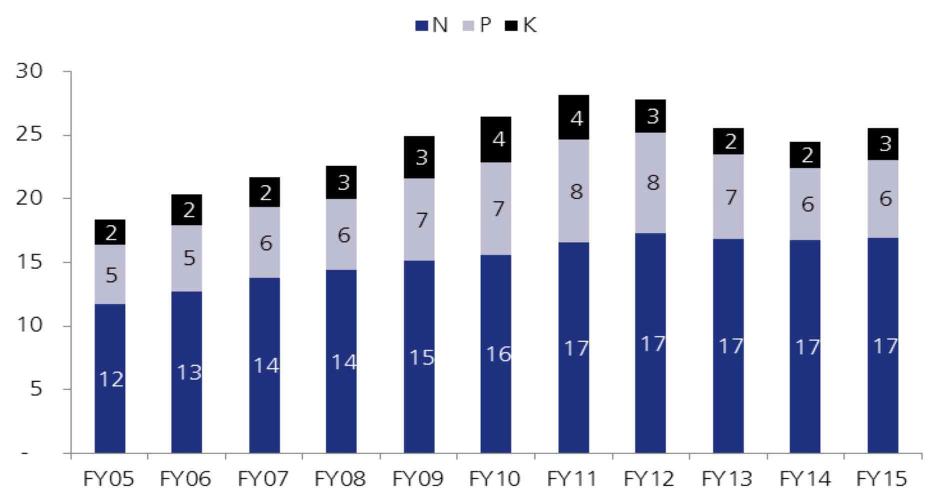
- As the new sale process is Aadhaar-based, the farmer in whose name land is registered needs to come for the purchase of fertilizers. This would create challenges for farmers who live at remote/far-off places from the location, where fertilizer dealers are located. At present, there is pooling done by farmers in many villages as one person, who travels to town/dealer buys fertilizers for many and shares the expenses.
- The farmers, who take farm lands on lease, will face challenges, as land records would not reflect their name.
- The dealers highlighted lack of awareness programmes by the government. There is still lack of clarity among dealers and the adoption at present is mixed. As with any transformational changes, we do expect the eventual adoption would be gradual and processes need to be modified as more and more feedback is collected through pilot phases.

How will DBT in fertilizers ultimately help all participants?

- Benefit to government: **At the end of full implementation, subsidy will be paid only based on end use (i.e., to farmer), thereby controlling leakages and reducing subsidy burden of the government.** We believe that c.Rs 100-150bn of savings can take place (out of total fertilizer subsidy of Rs 700bn) by capping leakages**. The following exhibit provides the year-wise fertilizer consumption break up.**

Ideal implementation can save up to c.15% of current fertilizer subsidy

Exhibit 116. Year-wise fertilizer consumption scenario (mn tonnes)



Source: Indian Fertilizer scenario, Rural Safari

We note that urea (which contains 46% nitrogen) is the cheapest source for providing nitrogen (N) nutrients to the soil. Hence, farmers mostly use urea (c. 80%) to provide nitrogen to the soil. The remaining 20% requirement is supplied using complex fertilizers. From the exhibit above, it is clear **that c.17mn tonnes of N is consumed in India**. Therefore, urea consumption is c.30mn TPA (17*80%/46%).

Furthermore, the Indian Fertilizer Scenario, 2015, states that out of the c.17mn tonnes of N, c.10.7mn tonnes of N is used for all crops. **Therefore, c.6mn tonnes of N was used for non-fertilizer use.** If we assume the same ratio (80% of N is supplied by urea and urea consists of c46% N, **c.10.4mn tonnes of urea is being used for non-fertilizer use.**

Hence, by using DBT and soil testing (as highlighted above), subsidy on this 10.4mn tonnes can be saved. Assuming a subsidy of c.Rs 17,000/ton, this translates to a potential saving of c.Rs 176bn. Conservatively, we can assume that c.Rs 100bn-150bn of subsidy can be saved if the GoI targets subsidies only to farmers.

The subsidy on the 30mn TPA at c.Rs 17,000/ton translates to c.Rs 510bn. This subsidy amount tallies with the government's urea subsidy budget of c.Rs 540bn.

- Benefit to company: While the government provides subsidy to companies, it takes time for the cash to be actually received by the companies. This stretches their working capital. As of FY16, subsidy receivable, as a percentage of total assets, ranged between 15% and

40% (exhibit below). **A major benefit of this scheme is that when subsidy is paid to the farmer, fertilizer companies' working capital cycles will improve and urea stocks can get rerated (just like OMCs).**

Exhibit 117. Subsidy (Rs mn) outstanding status of various companies

Company	Subsidy receivables (outstanding as on FY16)	Total assets	Subsidy receivable as a % of total assets
National Fertilizers Ltd	46,292	1,21,245	38%
Chambal Fertilizers	30,936	83,788	37%
Zuari Agrochem	17,110	49,497	35%
GSFC	23,819	76,027	31%
Coromandel	20,171	88,927	23%
GNFC	11,694	79,388	15%
RCF	11,514	76,860	15%

Source: JM Financial, Company

Fertilizer company receivables would come down materially once the subsidy is directly paid to farmer and they buy at market price

We note that while manufacturers will benefit from the lighter balance sheet due to elimination of subsidy receivables, curbing of leakages may also impact demand for fertilizers.

- Benefit to farmer: Middlemen will slowly ease out, thereby enabling farmers to buy at MRP. Furthermore, linking with soil health cards will also stop overuse of urea and improve soil quality.

Based on our findings, we believe that the full implementation of the scheme could be more of a medium-term project, as it is just the first phase of the pilot that has currently begun and a long road map lies ahead in terms of digitising land records, increasing penetration of soil health cards and improving farmer awareness, among other initiatives.

Consumer

Since the beginning of our rural trips, our conclusions from feedback received has been largely dependent on the monsoon factor, given its ability to swing rural incomes. Monsoon being at par in the previous year (2016) had revived hopes for recovery in rural demand, which did not materialise. While most staples companies blamed it on demonetisation, which occurred in mid-3QFY17, demand till 4QFY17 (Mar'17) also does not seem to be as buoyant. As per our survey, Rabi crop realisations are expected to witness a healthy growth, but there are still some signs of reluctance from rural consumers on reverting back to spending patterns at the pre-demonetisation levels, especially for discretionary items. We expect gradual revival of consumption, but destocking on GST implementation could keep overall demand subdued in the near future.

Expect gradual revival of consumption, but destocking on GST implementation could keep overall demand subdued in the near future

- Reluctance on spending could remain in near future: While rural incomes were expected to witness healthy growth this year, demonetisation played spoilsport, impacting realisations for crops as well as access to incomes earned by rural consumers. Given lower cash availability and high prevalence of cash economy, there was reluctance towards expenditure during the period, immediately after demonetisation. Now though liquidity has improved (but not completely restored to previous levels), there still appears to be some reluctance by rural consumers on enhancing expenditure. Early reports on monsoon expectations in the current year have not been very encouraging, implying caution on expenditures could continue, in our view.
- Staples demand to return to pre-demonetisation levels; GST could adversely impact primary demand though: Rural demand for staples have now largely reverted back to pre-demonetisation levels, given these are low-ticket items and consumption is non-discretionary in nature. With raw materials now being steadily inflationary, realisation growth is also expected to remain healthy and could help drive revenue growth for these companies in double digits. While consumer demand is expected to remain healthy, primary demand could get impacted by supply-chain destocking on GST implementation.
- Prioritisation of expenditures may continue given monsoon forecasts are not very encouraging: Early forecast for monsoon pegs it below long-term average levels. As monsoon failures in the two years preceding last year have impacted rural incomes adversely, our sense is that rural consumers could remain cautious on spending given the early monsoon forecasts are not very encouraging. Hence, prioritisation of expenditures would continue and expenditures such as children's education, marriages and home improvements would be ranked higher in priority lists. Some of the utility items such as bikes/scooters, tractors and warehouses could also witness stable demand, given their utility.
- Stable marriage spending could help apparels demand given a low base; V-Mart could continue to benefit: Demand for value fashion apparels over the past two years have been impacted by poor monsoon. With improved rural incomes and compulsions on apparel purchases during marriages, we expect value fashion to witness a more normalised demand henceforth. Growth in apparels demand is also expected to benefit from the lower base. V-Mart has a higher presence in agrarian states such as UP and Bihar, and could be a beneficiary of this trend. V-Mart also sells products at lower price-points, 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 were not even stocking Patanjali products owing to low demand. Ayurvedic/natural products attractiveness remains lower among farmers owing to lower price competitiveness (synthetic products such as Lifebuoy soaps available at lower price points) and lower fascination with natural products. Patanjali also continues to witness competition from other Ayurvedic brands such as Kesh King and Himalaya.

Exhibit 118. A retailer in MP

Source: JM Financial, Rural Safari

- Demand has now completely stabilised and is witnessing mid-single digit growth
- Lux and Lifebuoy are the largest selling soap brands, while Wheel and Ghari brands dominate the detergents segment
- Among shampoos, Clinic Plus and Dove sachets are the best-selling brands, while Parachute and Shanti Amla witness higher demand in the hair oil space
- Does not stock Ayurvedic products, including Patanjali as there is limited demand
- Stocks SKUs of only Bournvita
- Britannia Kreemz is witnessing good consumer demand and competing well with Parle-G in the value segment
- In chips, stocks emerging brands such as yellow diamond because of the high value-for-money proposition

Rural NBFC: Rural economy to bounce back post-harvest

We visited Mahindra Finance and other financier's branches during our recent rural trip. Our interactions at branches as well as with dealers and customers indicate rural demand is improving after demonetisation across most regions; however, it has not yet reached pre-demonetisation levels. While a good monsoon and a healthy Kharif crop would usually have augured well for rural-focused NBFCs, weaker market sentiments (especially in rural markets following demonetisation) impacted their business and collections. Collection efficiency for companies such as MMFS, Magma Finance and L&T Finance, especially in the tractor portfolio, was severely impacted with its customers not having access to cash to pay the loan instalments. However, with remonetisation of the rural economy, rural India will be better off in Q4FY17, as they will have realisations from both Kharif and Rabi crops. Furthermore, the government's renewed focus on the rural economy, infrastructure, affordable housing and significant increase in allocation of funds towards the rural sector in the Union Budget of 2017 shall definitely help create demand; this in turn will revive economic growth. In the short term, we expect growth to moderate and credit costs to increase for NBFCs under our coverage. Strong agriculture output, higher MSP and possible increase in government spending on rural infrastructure projects should benefit rural financiers in the medium term. Therefore, we expect collection trends to improve and expect rural growth to revive in FY18, assuming no negative surprise on the monsoon front.

- Rural income to improve post-harvest: We believe that rural incomes are going to be higher YoY across the board due to: a) higher crop output on improvement in crop yield, and b) lower input costs. The reduction in input cost can be ascribed to: i) the reduction in cost of fertilizers, ii) lower spending on irrigation due to good rains, iii) lesser incidences of pest and fungal attacks, leading to reduced demand for pesticides, and iv) lower fuel use.
- Takeaways from MMFS' management about its performance: The past three years have been difficult for MMFS with its gross NPLs increasing from 3% in FY12 to c.11% in 9MFY17. It has a major presence in 10 large states, namely Uttar Pradesh, Andhra Pradesh, Bihar, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Rajasthan, Telangana and Tamil Nadu. As per the management, collection efficiency has improved YoY during Q4FY17; however, it still is not able to recover from some of the accounts that went bad during demonetisation. Focus on recoveries is higher and trend in repossession has increased (repossession stock has now increased to 10,000-12,000 vehicles vs. 7,000-8,000 vehicles earlier). The management expects higher recoveries from the tractor portfolio during Q4FY17 due to improvement in farmer's cash flow on improvement in crop output.

Collection efficiency has improved during the last two months

- Expect government 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 increase 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 a pick-up in infra activities should improve the non-agri. income for farmers. Additionally, there would be a 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 monsoon 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).**

Exhibit 119. Management feedback: NBFCs with exposure in rural sector

NBFC	Comments
Bajaj Finance	- In the consumer segment, volume growth has normalised; value growth is yet to normalise due to contraction in ticket size - 2W/3W continue to see issues though there is improvement from lows; management expects this to normalise as underlying sales normalises - Rural business was not impacted much as company lends to mass affluent rural customers only
Cholamandalam	- No. of trips for CV operators has reduced to 6/month in Jan-Feb'17 (vs. 8/month during Oct). It went down to 4/month trips in Nov - Property business will be under strain and demonetisation will keep these under strain; the small transporters business and other vehicle customers are behaving quite well; property is in a down-cycle - Delinquencies in early bucket has increased due to temporarily disruption
Magma	- Collections were adversely impacted during most of November and December; however, January collections recovered to pre-demonetisation levels (97%) - Company has sold Rs 679cr (Rs 6.8bn) of NPL and have also realigned its branch organisation structure, which should result in improvement in recoveries, going ahead - Continue to focus on ensuring that the overall collection efficiency in the tractor portfolio improves; the intent is not to take a very aggressive stand on tractor disbursements and instead focus on generating quality business at an appropriate rate of growth, while ensuring that the overall performance on the portfolio side continues to show an improvement
Mahindra Finance	- Management expects strong recovery during Q4FY17 on: i) higher farm-related cash flows due to strong crop season and healthy yields, and ii) resumption of contracting activities - Tamil Nadu, Kerala, Punjab and West Bengal do not seem to have gone through the same pressure as the states such as Maharashtra, MP, UP and Bihar - Collection efficiency during Dec'16 was 93-94% vs. 70-74% during Nov'16 - Rural cash flows have improved as cash flows have started to come through - Disbursals are also improving; asset quality rather than growth remains the key focus in the near term - Margin money is still an issue in the rural markets - PV segment continues to do well; there is limited scope for market share gains in the Maruti and Mahindra UV segment, but it sees growth opportunities in the non-Mahindra tractors and non-Maruti cars segment. - Company has repossessed 8,000-10,000 vehicles during Q3FY17; more than an average repossession rate of 3,000-4,000 vehicles
Manappuram Finance	- Disbursements had fallen c.25% after demonetisation, but they have currently gone back to normalised levels - Loan disbursement had dropped in 3QFY17 by 20% QoQ, but is trending towards normalcy in 4QFY17. MFL's online product is picking up and now accounts for c.10-12% of the total loan book - In Microfinance, a drop in collection was witnessed in Kerala and Karnataka; MFL's cumulative collection efficiency is 92% with the Nov'16 collection at 99%, Dec'16 collection at 95% and Jan'17 collection at 90%
Muthoot Capital	- Seeing some improvement in 2W segment; slowly normalising - Collection trends are improving, but not adequate to compensate for past instalments
L&T Finance	- MFI disbursals are below normal run-rate; collections trend is improving, but still lower than pre-demonetisation levels - Impact on 2W segment has not been significant - Farm sectors had seen pressure as cash cycle was not complete; cash availability improving
Shriram City Union	- Loan against gold and small enterprise finance have been the most affected, but situation is becoming better and growth is slowly improving - 2W disbursal has improved from recent lows, though it is still slightly below pre-demonetisation levels - Collections are improving, but may not be adequate to compensate for missed instalments; in 2W, there is not much change in collection efficiency from December to January; however, there was some improvement in March - Expect gold business to slow down due to new regulation on capping cash disbursements
Shriram Transport	- Disbursal had declined sharply in November; situation has started to improve in January - Demand for new vehicles has been good in January and March, partly led by pre-buying ahead of the emission norm change; expect used CV to benefit with a lag - Rural cash shortage is easing; demand is steadily improving; April-May is the peak harvesting season, which could also help - On the lending policy, the company has not done any changes except for lowering the LTV and collateral - Company has proactively increased its coverage ratio as: i) it has to migrate to 120 DPD in Q4, and ii) there is a probability that in some assets recovery might not come in the next couple of months

Source: Company, JM Financial

Box 8: MMFS branch visit summary (Bhatinda)

- We visited MMFS' branch in Bhatinda during our recent rural trip to understand the current rural economic scenario. Customer sentiments have improved, as the outlook for Rabi crop is better since there were no unseasonal rains. There has been some improvement in customer cash flow, as farm productivity has improved due to decline in farm-related costs (overall savings of Rs 2,000-3,000/acre). This was owing to good moisture levels, reduction in fertiliser costs, lower use of diesel and lesser incidences of pest attacks. Asset quality trends are stable YoY, as the collection efficiency in the 3-5 month bucket has improved to 110-115% (vs. 98% in Q1), while the recovery rate has improved to 15% (vs. 5% YoY).
- **Better crop outlook and decline in input costs has improved farm income:** While in 2015 crop was adversely impacted due to whitefly (when more than 60% of the crop was destroyed in the Malwa belt), 2016 was a bumper year for cotton farmers as production improved due to good weather conditions and better seeds, which helped cope with the impact of whitefly. Sowing area in the Malwa belt reduced to 2.5 lakh hectares in 2016 vs. 4.5 lakh hectares in 2015, leading to an increase in cotton prices to Rs 5,800-6,000 vs. Rs 4,000 last year. Outlook for Rabi crop has also been good due to absence of unseasonal rains. Paddy crop is expected to be good this year and overall sentiments are positive. Additionally, there was a decline in farm-related costs ascribed mainly to: i) reduction in the cost of fertilizers, and ii) lesser incidences of pest and fungal attacks, leading to reduced demand for pesticides and fungicides for wheat and cotton crops.
- **Negligible impact on farm income due to demonetisation:** Farmers mostly buy seeds and fertilizers from money lenders on credit and repay it at the time of sales. Most agri. dealers are also moneylenders, who buy crop from farmers. Therefore, during demonetisation farmers faced no issue while sowing and or on harvesting prices. Farm sentiments were positive and farmers could sell their crops at market price. However, shortage of cash during demonetisation has impacted its large ticket personal expenses (such as spending on marriages). This has led to postponement of demand, which is expected to improve post-harvest.
- **Non-farm income could be impacted due to slowdown in infra activity on change in government:** MMFS' customer cash flows has witnessed some improvement in the past 12 months due to pre-election spending. Project deadline was expedited for some large projects such as road/highway construction; however, after the elections, construction activity has been stalled as the new government has come to power in the state. Payments to the contractors could now be delayed, which could impact non-farm income for farmers.
- **Healthy growth trends:** Disbursement growth in tractors has improved to 40% YoY, driven by realignment of business verticals; this has led to improvement in relationship with dealers. However, the used vehicles business has reported some slowdown.
- **Asset quality is witnessing some improvement:** While the situation has now normalised, there is still some issue with the 5-10% of the accounts, which went bad during demonetisation. However, MMFS expects repayments for these accounts to come during April (post-harvest). While collection efficiency has remained stable YoY in Q4, the recovery trend has been very strong during March due to: i) post restructuring, number of people responsible for collections have increased, and ii) the increase in repossession, as the company has tightened its recovery mechanisms—collection officer would now repossess vehicle, if the customer has missed on three payments (earlier it was a delay of 3-6 payments). Segment-wise, three-wheelers are witnessing more stress compared to cars.
- **Collection through cheques has increased YoY:** During demonetisation, many people preferred to pay through cheque and 70-80% collections were through cheques. While cheque payments have now reduced during Feb-Mar (30% of collection through cheques), it is still higher than the historical average of 10%.

Cement: Rural to drive demand; recovery delayed on demonetisation

Accounting for c.35% of the overall demand, rural housing is a major demand driver for the cement sector. We believe the cement sector in the medium- to long-term will be driven by the increased demand from the rural sector; given the increased focus on rural housing (10mn houses to be built in three years) and rural infrastructure (roads, irrigation). A housing shortfall of c.30mn units translates into a potential demand of c.300mn tonnes. Wage growth realised primarily on increased yields due to a favourable monsoon is expected to improve the cement demand. Cement demand was impacted negatively due to demonetisation with volumes declining YoY in the months following demonetisation. We expect the pent up demand to kick-in during FY18 and FY19. Implementation of the 7th CPC, increased focus of government towards housing, rural infrastructure and irrigation will provide a significant push to the demand, going forward.

Recent trends in the sector:

- Cement demand declined c.1% YoY in the first half of YTD FY17 (Apr'16-Feb'17), as against a growth of c.4% in the same period (FY16). The decline was triggered by demonetisation with the production falling in Dec'16 (-8%), Jan'17 (-13%) and Feb'17 (-16%). We expect the demand to pick up in FY18 on better rural income and the government's focus on housing and infrastructure.
- Cement prices, on an average, have been stable this year. There has been an uptick in the prices in the northern (16% YoY) and central markets (9% YoY); however, prices have experienced pressure in southern and eastern regions. Prices were flat in the west.

Factors indicating potential revival:

Government's target to build 10mn houses over 2016-19 to boost demand in rural regions

- Favourable monsoons: Better farm incomes on good monsoons in several parts of India would have a positive impact on the cement. We expect the effect of better farm incomes this year to kick into the demand for cement in FY17-18.
- Rural wage growth: Growth in the farm incomes supported by good monsoons, positive effects of the 7th CPC will boost demand for discretionary spends such as housing.
- Focus on rural economy: The government has increased its focus on spending on the rural infrastructure. Rural housing is one of the major initiatives under PMAY (building 10mn houses in rural India). These initiatives from the government are likely to have a positive impact on the cement demand.
- Pent up demand: Cement demand from the rural segment was impacted on the slowdown in the rural economy for the past two years. This, coupled with the demand decline on demonetisation, is expected to drive the pent up demand, leading to growth in the volumes for cement.

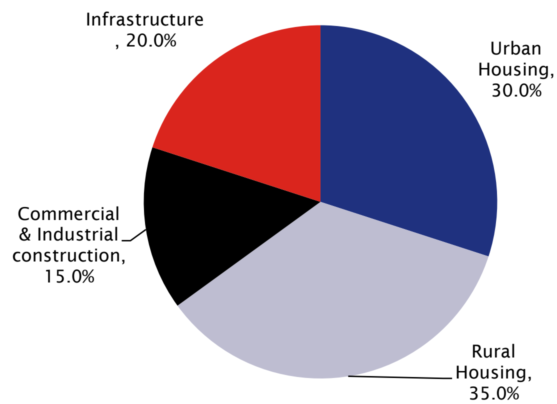
Structural drivers remain intact:

- Rural/urban housing: There is a shortfall of c.29mn houses in India. Housing schemes such as "Housing for all by 2022" will help drive demand in this segment. The government foresees construction of 10mn and 20mn houses under rural and urban housing schemes; 260 mnT of possible cement demand from these schemes.
- Focus on the 'pucca' houses: A major proportion of houses in rural areas is either kucha or semi-pucca. Conversion of the houses into pucca houses would contribute to the cement consumption.
- Uptick in rural wages: We expect the better monsoon to have a positive impact on the rural wage growth. Implementation of 7th CPC and government schemes devised for the agro economy are also expected to positively impact wage growth.
- Impetus to infrastructure: The government's focus on infrastructure developments, viz., roads/railways, power and irrigation, would boost cement consumption, going forward.

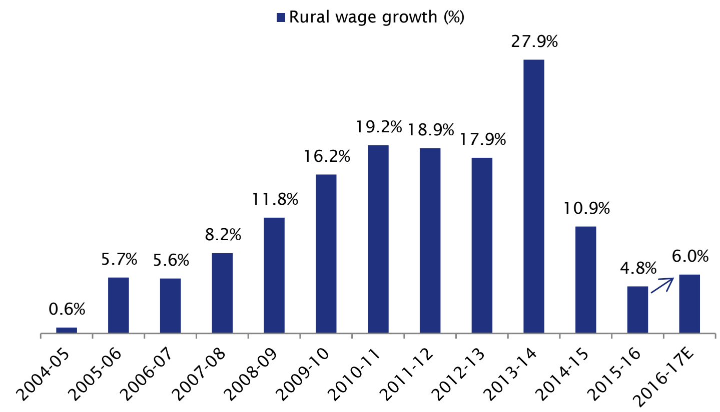
Exhibit 120. Cement demand: Rural demand is an important demand driver

Rural housing contributes c.35% to the cement demand; rural infrastructure is an additional driver

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



Rural wage growth—key for cement demand



Source: CRISIL, JM Financial.

Exhibit 121. Potential demand from rural housing c.300mn tonnes

Potential demand from housing	Housing shortages
Housing (mn units)	29.5
Average size of house (sq. feet)	500
Estimated number of bags required per sq. feet	0.4
Cement per bag (kg)	50
Potential cement demand (mn tonnes)	295

Source: 12th five year plan working group, Ministry of Housing and Urban Poverty Alleviation, JM Financial

Exhibit 122. Demand segment outlook

Demand Segment	% of total demand	Key Monitorables	Impact: Short Term	Impact: Medium Term
Urban Housing	25-30%	**Real Estate Regulator:** Expected to be implemented by mid-2017; will impact launches after 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 the 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 160 mnT over five years; until September, the government has sanctioned 1mn houses; execution will be a key monitorable	=	▲
Rural Housing	35-40%	**Demonetisation** led deferrals; demand could revive once liquidity eases	▼	=
		Normal monsoon in FY18 essential for rural demand recovery	=	▲
		Housing for all rural envisages construction of 10mn houses in three years; this could have a potential of 100 mnT 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: Industry, JM Financial

Automobiles

Our latest trip across rural hinterlands over the past few weeks (5th 'Rural Safari' series, 2016) brought to light healthy farm output in most parts of the 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. While two-wheelers would have also picked pace, demonetisation led to a sharp volume decline in Nov-Dec'16. During our rural visits, most two-wheeler dealers reported a sequential improvement in volumes. With the Supreme Court (SC) ban on sale of BS3 vehicles from 31Mar'17, retail growth sharply picked up in the past two days of the fiscal year, aided by discounts from the OEMs. PV sales were relatively insulated from both demonetisation and the ensuing SC ban.

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 the medium to long term. Similarly, given the structural drivers (such as greater aspirations, growing income, better infrastructure and lower penetration) in place, we see strong growth opportunities for both PV and two-wheeler players over the medium to long term. Coming to FY18, we expect a steady recovery in two wheelers on two successive healthy crops and robust urban demand. We estimate 10-11% YoY growth in two-wheelers in this year. In passenger vehicles, new launches/refreshes would keep the excitement up among buyers and we expect a healthy build-up of rural demand, complementing the already strong urban demand, leading to 11-12% YoY growth.

Two-wheelers

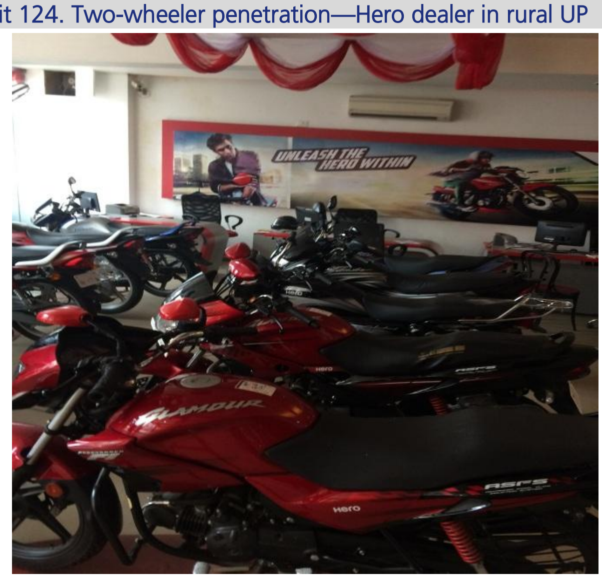
2W sales have improved across regions from Dec'16 levels

Past the demonetisation blues: In most rural/semi-urban areas we visited, two-wheeler sales had improved from the depths of Dec'16 levels. Given healthy crop output across regions, dealers were more positive on sales, going forward. Two-wheelers being mainstay for transport in rural/semi-urban India, we observed anticipation of healthy recovery, a departure from the pessimism seen during demonetisation. Higher farm income combined with catalysts such as the wedding and festive seasons would materially lead to a recovery in two-wheeler sales in FY18.

Exhibit 123. Two-wheeler penetration—Hero dealer in rural UP

Source: JM Financial, Rural Safari

Exhibit 124. Two-wheeler penetration—Hero dealer in rural UP



Source: JM Financial,Rural Safari

Strong retail sales in Mar'17 aided by high discounts: Following the SC ban on BS3 vehicles, the last two days of Mar'17 saw a strong demand for two-wheelers, led by high discounts (10-15k per unit). As per industry checks and discussion with company managements, most two-wheeler OEMs clocked double-digit retail growth in Mar'17. Hero Motocorp registered

20% retail growth in Mar'17. This may lead to slightly subdued two-wheeler retail demand in Apr-May'17, since buyers preponed their purchases. Many dealers liquidated their BS3 inventory before 31Mar'17. This reduces channel inventory and may lead to better wholesales, provided retail sales remain supportive.

Hero Motocorp has higher recall, although market share under pressure: During our interactions with dealers, we understand that while Hero Motocorp remains the top-of-mind recall, increasing competition in the commuter segment from Honda (with attractive discounts) and Bajaj Auto have started eating into Hero's market share (refer to Exhibit below). Consequently, Hero Motocorp's market share in motorcycles has slipped from 52.5% in FY16 to 50.9% in FY17. While some part of this fall in market share can be ascribed to the strong growth in the urban-led premium motorcycle segment, it also indicates the gaps in Hero's motorcycle portfolio.

Hero continues to have high recall in rural India, but its market share is under threat

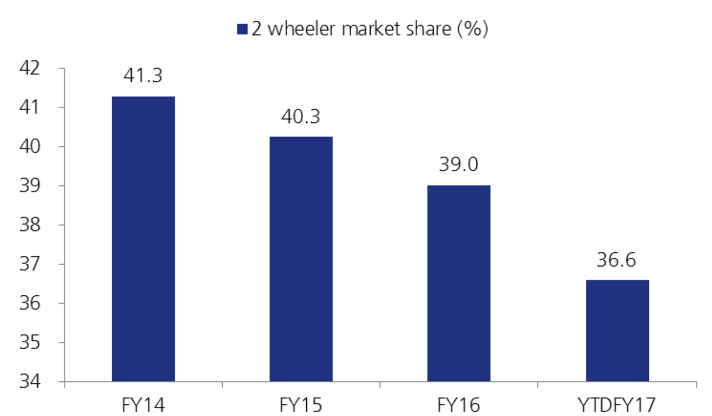
Exhibit 125. Hero remains popular but…

Source: JM Financial, Rural Safari

Exhibit 126. ...other players are also gaining prominence

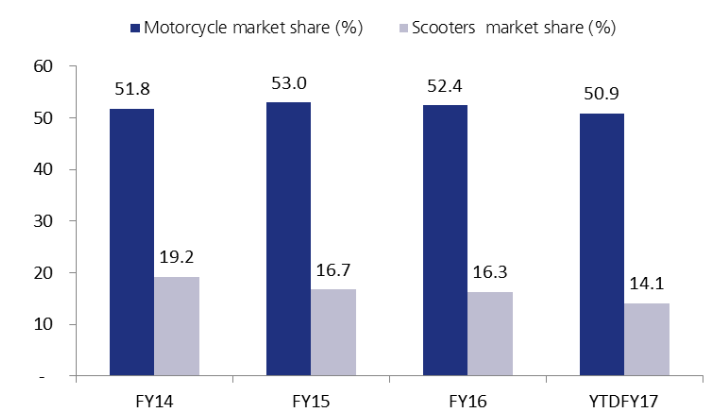
Source: JM Financial, Rural Safari

Exhibit 127. Hero Motocorp's market share under pressure



Source: SIAM, JM Financial

Exhibit 128. Motorcycles and scooters market share has declined



Source: SIAM, JM Financial

Even in rural areas, there is an increasing trend to buy higher displacement motorcycles. For example, most Hero dealers we spoke to were very positive on the Hero Glamour 125, a 125cc commuter motorcycle. Hero's Glamour 125 has gained healthy traction among customers, as witnessed in the +11% YoY growth (until Feb'17) compared to the overall motorcycle industry growth of 4% YoY.

Improving rural/semi-urban infrastructure drives demand for scooters: Scooters continue to report robust growth within two-wheelers. At the industry level, scooters registered c.12% YTD in FY17 nearly 3x that of the 4% growth in motorcycle dispatches. Scooters currently occupy c.25-30% of the total two-wheeler demand in many tier-3 towns, while the same is still c.10-15% in villages. At the industry level, scooters comprise c.32% YTD of the total two-wheeler sales in FY17 that has grown from c.15.5% of domestic two-wheelers in FY10.

Although we believe scooters will continue to outperform two-wheelers and occupy a bigger share of the two-wheeler market in line with global trends, villages will take more time to catch up to this 'scooterisation' trend in the medium term, largely due to poor infrastructure. Furthermore, as roads and infrastructure improve in rural and semi-urban areas, the demand for scooters will increase. During our travels we observed that in rural parts of Gujarat, where roads are improving, scooters penetration has touched as high as 20%, whereas the same in rural areas of UP would be c.10%.

Early signs indicate healthy two-wheeler outlook for FY18: In FY17, both Kharif and Rabi crops were healthy across most regions. North India saw double-digit growth in crop output led by healthy south-west monsoon and rising reservoir levels. While the festive season in Oct-Nov saw a healthy jump in retail sales, demonetisation sharply slowed down the demand leading to deferral of purchases. South India presents a different picture. States such as Tamil Nadu, Karnataka and Kerala suffered from deficit north-east monsoon and declining reservoir levels. Hence, two-wheeler sales were largely subdued YoY in South India. Overall, two-wheeler sales registered 7% YoY growth in FY17. Early predictions (Skymet) indicate normal monsoon in FY18 and we expect 10-11% growth in two-wheelers.

Passenger Vehicles (PV)

PV least impacted by demonetisation: During demonetisation, the PV segment was least impacted, while two-wheelers and CVs were affected to varying degrees. During our dealer visits in rural India, it became abundantly clear that PV OEMs such as Maruti Suzuki (MSIL) with traction in new models, optimal inventory and extensive network were relatively insulated. In tier-2 cities, as per our dealer visits, MSIL registered positive retail growth in Jan'17 and Feb'17, after a strong Dec'17 retail growth. Once again, following the SC ban on BS3 vehicles, MSIL and in general, the PV industry was least impacted, as they had transitioned to BS4 vehicles much earlier than the 31Mar'17 deadline. We remain optimistic on the PV growth prospects.

Industry leader MSIL reported domestic growth of c.11% in FY17 higher than the 9% industry growth. The company has also posted positive rural sales growth after one full year of a declining growth trend, reeling under the impact of consecutive crop failures.

Exhibit 129. Maruti Suzuki dealership in Andhra Pradesh

Source: JM Financial, Rural Safari

Exhibit 130. Maruti Suzuki dealership in Andhra Pradesh

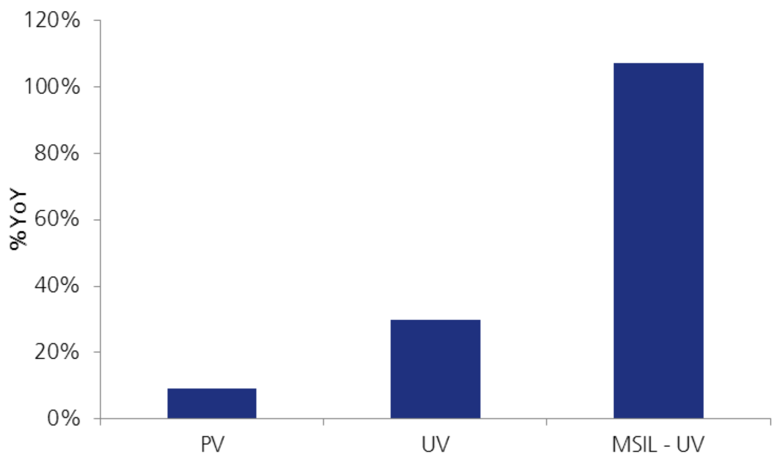
Source: JM Financial, Rural Safari

Passenger car penetration to increase, as infrastructure improves: Rural road infrastructure has been improving over the past 3-5 years. Central schemes such as Pradhan Mantri Gram Sadak Yojana have provided an impetus to the 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. We expect Maruti Suzuki's rural portfolio to steadily improve from the current level of 33% of volumes.

We expect Maruti's rural portfolio to steadily increase from the current 33% of volumes

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 among customers. In tier-2 towns such as Vijayawada, the waiting period for 'Brezza' is c.18 weeks, whereas it is close to six months for the 'Baleno'. Furthermore, with the launch of 'Baleno RS', Maruti Suzuki has managed to keep up the excitement.

Exhibit 131. Vitara Brezza dispatches have been strong that has lifted MSIL's UV portfolio growth in FY17



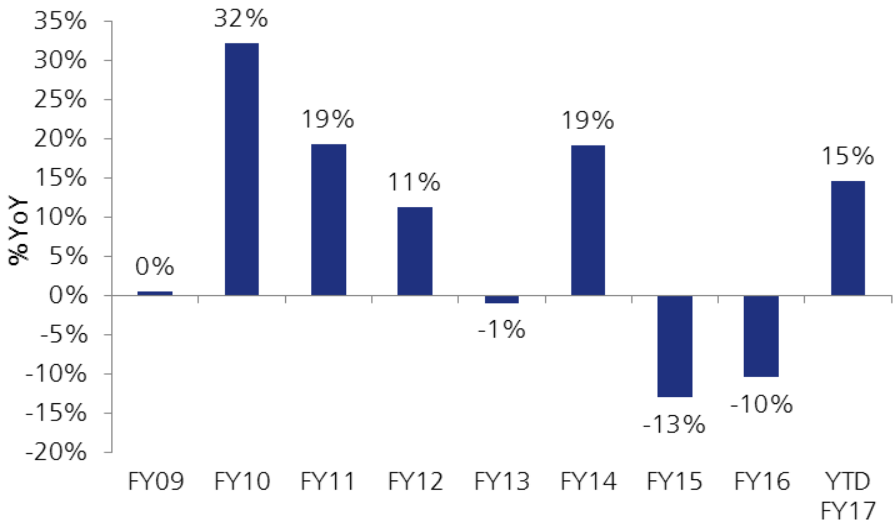
Source: Company, JM Financial

Tractors

Tractor demand remains healthy: After demonetisation, the domestic tractor industry quickly revived and has been posting healthy volumes. YTD FY17, domestic tractor sales recorded 15% YoY growth on good monsoons, following two years of sequential decline of 13%/10.5% in FY15/FY16. Farm income grew double-digits in FY17 in most parts of the country, barring a few southern states, leading to healthy tractor demand.

With agri. demand for tractors staging a comeback, the restart of mining in a few states such as MP/Punjab has given some respite, coupled with a pickup in construction activities and relatively benign diesel prices (although slightly increasing), it has improved profitability for tractor owners (especially those who rent it out).

Exhibit 132. Tractor volumes have rebounded from the depths and continue to register healthy volumes



Source: CMIE, 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 oft cited reasons are: a) higher capital cost of implements compared to manual labour, b) lack of the skill required to operate machinery, and c) fragmented land holdings that prevent optimum utilisation of mechanisation.

However, of late, mechanisation is increasingly picking pace. The Government of India also provides capital subsidy of 40-50% of the total implement cost. During our visit to the Guntur District in Andhra Pradesh, we observed, most paddy farmers had started using harvesters in lieu of manual labour, since the cost of labour has been continuously moving upwards. Farmers in that region typically rent the harvesters for a fixed rate per acre (c.Rs 2,500 per acre), as opposed to daily labour wages (typically Rs 400-500 per day).

Tractor demand remains strong and is aided by pick-up in commercial activities

The increasing use of farm implements also warrants the use of higher HP tractors, since more engine power is required to pull 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 and mining), and **c)** availability of financing at attractive interest rates.

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

Exhibit 133. Valuation comparable

Company	Reco	Mkt Cap (Rs bn)	CMP	TP (Rs)	EPS (Rs)			EPS Gr (%) 17E-19E	PE (x)			EV/EBITDA		P/BV (x)		ROE (%)	
					FY17E	FY18E	FY19E		FY17E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E
Bajaj Corp.	BUY	63	429	485	15.7	17.2	19.4	11.2	27.4	24.9	22.2	19.9	17.0	11.7	10.6	49.1	50.0
Dhanuka Agritech	NR	41	824	NR	24.8	30.2	36.7	21.6	33.2	27.3	22.4	19.1	15.9	6.3	5.3	24.6	25.4
Finolex Industries	NR	70	561	NR	25.7	27.9	30.9	9.7	21.8	20.1	18.1	12.8	11.6	5.3	4.9	28.4	28.3
M&M Financial	BUY	189	333	340	12.4	17.4	21.8	32.4	26.8	19.1	15.3	-	-	2.6	2.3	14.3	16.1
V-Mart Retail	NR	16	902	NR	19.7	26.3	35.1	33.6	45.9	34.4	25.7	17.6	14.0	5.2	4.4	18.1	18.4

Source: JM Financial, Bloomberg estimates for uncovered companies, Valuation as on Apr 17, 2019

Bajaj Corp. | BUY

JM FINANCIAL

Growth recovery around the corner; valuations reasonable

Richard Liu
richard.liu@jmfl.com | Tel: (+91 22) 66303064
Vicky Punjabi
vicky.punjabi@jmfl.com | Tel: (+91 22) 66303065

Bajaj Corps' flagship brand Bajaj Almond Drops (BAD) is the largest player in the light hair oil space, which has the potential to grow volumes at double-digit level. The company has historically displayed a strong pricing power, aiding a high-margin expansion. Despite the high price hikes, BAD's market share has reached c.61% in FY17 (vs. 53% in FY11), implying strong pricing power of the brand. The opportunity still remains large, as the market share within the total hair oil market/non-coconut hair oil market remains quite low (c.10%/15%). The company also generates healthy free cash flows and has paid out 86% of FY17 profits as dividends, indicating its willingness to return excess cash to shareholders. Recent results have been impacted by subdued rural demand and supply-chain disruption on demonetisation. Its exposure to rural markets (39% of sales from rural areas) keeps it well-positioned to leverage rural recovery. It is also quite attractively valued at c.25x 12M forward earnings and is quoting a c.40% discount to the consumer universe (ex-ITC).

- **Initial signs of recovery visible in consumer off-takes in 4QFY17:** While BAD's reported volumes declined 7% in 4QFY17, it was largely attributable to disruptions in the supply chain, as demonetisation continued to hamper purchases by rural wholesalers. BAD's retail off-takes though, has grown c.8-9% in volumes over Jan-Feb'17, clearly implying some early signs of revival in rural demand. Overall, we expect rural demand to progressively improve (though contingent upon behaviour of monsoon in the near term); given that rural accounts for 39% of BAD's sales, we see Bajaj Corp being a strong beneficiary of rural demand recovery. It has posted high-teens volume growth historically in a good demand environment; hence, double-digit volume growth can be achieved, in our view, once rural demand recovers, especially given the low market share in the overall hair oil segment. BAD has also exhibited a strong pricing power in the past, despite an average price hike averaging 7% per annum; the brand has steadily increased its market share in the light hair oil category from 40% in FY08 to c.61% in FY17.

- **High cash flows and healthy return ratios; attractive valuation:** Bajaj Corp's return ratios are comparable to any other HPC company with RoEs at 48% and RoICs >100%. Its EBITDA margin stood at 30.3% in FY17, which is also among the highest within our coverage universe; it has maintained strict controls on its net working capital (3% of net sales in FY16 and negative in the preceding years). This has helped the company generate high free cash flows (75% FCF-to-PAT conversion ratio in FY16) and maintain a healthy balance sheet (total cash balance of Rs 3.4bn, as of the end of Mar'17—39% of FY17 net sales). Over the past few years, it has also exhibited its willingness to pay-out excess cash generated as dividends (c.86% of FY17 adjusted profits distributed as dividends). We expect the company to deliver mid-teens operating profit growth (c.15%) over FY17-19 and valuations also appear quite reasonable at 25x one-year forward earnings (implying c.40% discount to our consumer universe ex-ITC).

Recommendation and Price Target	
Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	485
Upside/(Downside)	12.8%
Previous Price Target	495
Change	-2.3%

Key Data – BJCOR IN	
Current Market Price	Rs 429
Market cap (bn)	Rs 62.1/US$1.0
Free Float	25%
Shares in issue (mn)	147.5
Diluted share (mn)	147.5
3-mon avg. daily val (mn)	Rs 36.8/US$0.0
52-week range	439/325
Sensex/Nifty	29,643/9,203
Rs/US$	64.7

Price Performance			
%	1M	6M	12M
Absolute	14.9	5.7	1.8
Relative*	12.2	0.1	-13.6

* To the BSE Sensex

Financial Summary					(Rs mn)
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Net Sales	8,238	8,742	8,722	9,998	11,463
Sales growth (%)	23%	6%	0%	15%	15%
EBITDA	2,392	2,737	2,646	3,015	3,511
EBITDA (%)	29%	31%	30%	30%	31%
Adjusted net profit	2,097	2,332	2,311	2,539	2,855
EPS (Rs)	14.2	15.8	15.7	17.2	19.4
EPS growth (%)	22%	11%	-1%	10%	12%
ROIC (%)	92%	131%	130%	128%	121%
ROE (%)	42%	48%	48%	49%	50%
PE (x)	30.1	27.1	27.3	24.9	22.1
Price/Book Value (x)	12.9	13.1	12.8	11.6	10.5
EV/EBITDA (x)	25.1	21.9	22.6	19.8	17.0
Dividend Yield (%)	3%	3%	3%	3%	3%

Source: Company data, JM Financial. Note: Valuations as of 13/Apr/2017

Financial Tables (Consolidated)

Profit & Loss Statement					(` mn)
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Net sales	**8,238**	**8,742**	**8,722**	**9,998**	**11,463**
Growth (%)	23%	6%	0%	15%	15%
Net sales under Ind-AS (Net of excise)			7,953	9,163	10,515
Other operational income	18	22	22	25	29
Total Revenue	**8,256**	**8,764**	**8,744**	**10,023**	**11,492**
Cost of Goods Sold / Op. Exp	3,162	2,980	2,690	3,228	3,702
Personnel cost	390	475	611	680	768
Other expenses (SG&A)	2,312	2,572	2,796	3,101	3,511
EBITDA	**2,392**	**2,737**	**2,646**	**3,015**	**3,511**
EBITDA Margin	29.0%	31.2%	30.3%	30.1%	30.5%
EBITDA Growth	28.6%	14.4%	-3.3%	13.9%	16.5%
EBITDA margin under Ind-AS (%)			33.3	32.9	33.4
Depn & Amort	49	49	54	61	68
EBIT	2,344	2,688	2,592	2,953	3,443
Other income	316	286	363	356	375
Finance cost	1	2	9	9	9
PBT before Excep & Forex	2,658	2,972	2,946	3,300	3,810
Excep & Forex Inc/Loss(-)	-470	-470	-184	0	0
PBT	2,188	2,502	2,762	3,300	3,810
Taxes	462	538	595	761	955
Extraordinary Inc / Loss (-)	0	0	0	0	0
Assoc Profit/Min Interest (-)	0	0	0	0	0
Net profit	1,727	1,964	2,167	2,539	2,855
Adjusted net profit	**2,097**	**2,332**	**2,311**	**2,539**	**2,855**
Net Margin (%)	25.4	26.6	26.4	25.3	24.8
Diluted share capital (mn)	148	148	148	148	148
Diluted EPS (Rs)	**14.2**	**15.8**	**15.7**	**17.2**	**19.4**
Diluted Growth (%)	22.2	11.2	-0.9	9.9	12.4
Total Dividend + tax	2,035	2,041	2,058	2,031	2,284
Dividend Per Share (Rs)	11.5	11.5	11.5	11.4	12.8

Source: Company, JM Financial

Balance Sheet					(` mn)
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Shareholders' fund	**4,886**	**4,808**	**4,916**	**5,424**	**5,995**
Share capital	148	148	148	148	148
Reserves & surplus	4,738	4,660	4,769	5,277	5,848
Preference Share Capital	0	0	0	0	0
Total loans	0	100	100	100	100
Minority Interest	0	0	0	0	0
Def tax assets / (-) liability	5	7	7	7	7
Sources of Funds	**4,891**	**4,915**	**5,023**	**5,531**	**6,102**
Net-Fixed Assets	1,854	1,402	1,614	1,952	2,285
Gross Fixed assets	2,359	2,421	2,871	3,271	3,671
Intangible Assets	430	430	430	430	430
Less: Dep / Amort.	942	1,457	1,695	1,757	1,824
CWIP	7	9	9	9	9
Investments	1,837	2,707	2,707	2,707	2,707
Current assets	1,988	1,550	1,455	1,737	2,096
Inventories	393	502	425	488	559
Sundry debtors	133	254	275	315	361
Cash & bank balance	1,342	578	603	760	975
Loans & advances	53	152	152	175	201
Other current assets	68	65	0	0	0
Current Liabilities & Prov	788	744	753	865	985
Current liabilities	788	744	753	865	985
Provisions and others	0	0	0	0	0
Net current assets	1,200	806	703	872	1,110
Application of Funds	**4,891**	**4,915**	**5,023**	**5,531**	**6,102**

Source: Company, JM Financial

Cash Flow Statement					(` mn)
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Profit before tax	2,188	2,502	2,762	3,300	3,810
Deprn and Amortn	518	515	238	61	68
Net Interest Exp. /Inc	-314	-284	-354	-347	-367
Inc/dec in working cap.	135	-276	129	-13	-24
Others	-1	3	0	0	0
Taxes Paid	-459	-532	-595	-761	-955
Net cash from operations (a)	**2,067**	**1,929**	**2,180**	**2,241**	**2,532**
Capex	-7	-168	-450	-400	-400
Free Cash Flow	2,060	1,760	1,730	1,841	2,132
Inc(-)/dec in investments	-206	-837	0	0	0
Others	18	1,064	363	356	375
Cash flow used in invst (b)	**-195**	**59**	**-87**	**-44**	**-25**
Inc/(dec) in capital	0	0	0	0	0
Dividend+Tax Thereon	-2,035	-2,041	-2,058	-2,031	-2,284
Inc/dec in loans	0	100	0	0	0
Other assets	2	-1	-9	-9	-9
Financial cash flow (c)	**-2,033**	**-1,942**	**-2,067**	**-2,040**	**-2,293**
Net inc/dec in cash (a+b+c)	-161	46	25	156	215
Opening cash balance (adjusted)	1,503	532	578	603	760
Closing cash balance	1,342	578	603	760	975

Source: Company, JM Financial

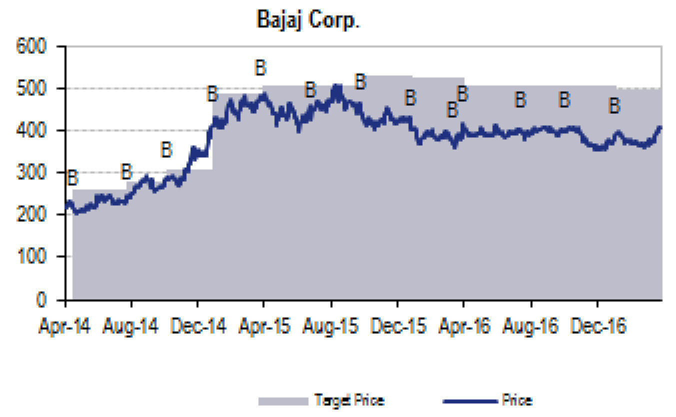
Key Ratios					
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Net Margin	25.4%	26.6%	26.4%	25.3%	24.8%
Asset Turnover	1.6	1.8	1.8	1.9	2.0
Leverage Factor	1.0	1.0	1.0	1.0	1.0
RoE	41.6%	48.1%	47.5%	49.1%	50.0%
Key Ratios					
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
BV/Share (Rs)	33.1	32.6	33.3	36.8	40.6
ROIC (%)	91.6%	130.6%	130.0%	127.5%	120.8%
ROE (%)	41.6%	48.1%	47.5%	49.1%	50.0%
Net Debt-equity ratio (x)	-0.7	-0.7	-0.7	-0.6	-0.6
P/E (x)	30.1	27.1	27.3	24.9	22.1
P/B (x)	12.9	13.1	12.8	11.6	10.5
EV/EBITDA (x)	25.1	21.9	22.6	19.8	17.0
EV/Net Sales (x)	7.3	6.9	6.9	6.0	5.2
Debtor days	6	11	11	11	11
Inventory days	17	21	18	18	18
Creditor days	49	45	45	45	45

Source: Company, JM Financial

History of Earnings Estimate and Target Price

Date	FY18E EPS (Rs)	% Chg.	FY19E EPS (Rs)	% Chg.	Target Price	% Chg.
29-Apr-14					260	
4-Aug-14					278	6.9
16-Oct-14					305	9.7
9-Jan-15					485	59.0
9-Apr-15					505	4.1
9-Jul-15	23.1				505	0.0
7-Oct-15	22.5	-2.6			530	5.0
7-Jan-16	21.7	-3.6			525	-0.9
22-Mar-16	21.1	-2.8			525	0.0
12-Apr-16	20.1	-4.7			505	-3.8
25-Jul-16	19.4	-3.5	22.2		505	0.0
14-Oct-16	19.0	-2.1	21.5	-3.2	505	0.0
13-Jan-17	19.4	2.3	22.2	3.2	495	-2.0

Recommendation History



JM FINANCIAL

Dhanuka Agritech | NOT RATED

Brand-focused agri. company

Mehul Thanawala
mehul.thanawala@jmfl.com | Tel: (+91 22) 66303063
Pramod Krishna
pramod.krishna@jmfl.com | Tel: (+91 22) 61781074

Dhanuka Agritech is an Indian agrochemical company engaged in the manufacture and distribution of pesticides across India with a product portfolio comprising insecticides (45% of revenues), herbicides (30% of revenues), fungicides (15% of revenues) and plant growth nutrients. A key differentiator for the company is its asset-light business model, wherein the company enters into technical tie ups/outsources technical manufacturing (which is a capital-intensive business) and only formulates the product in-house, which helps the management focus more on increasing the product range and improving product distribution. Of the company's total portfolio, c.50% comprises in-licenced products, which involves tie ups with global agrochemical majors for formulating, marketing and distribution of products in Dhanuka's own name. Our channel checks (during our rural survey) indicate the products are viewed as fairly premium and trustworthy brands with good performance and wide product range. Most products are priced in line with MNC players and it is because of the brand-pull the company enjoys (especially for products such as Targa Super, Caldan and Cover) that it has been able to claim fairly premium pricing, even on generic products. Dhanuka operates in a market where the outlook is determined by Indian monsoons; its management expects growth at 15-20% annually in case of normal monsoon. We do not have a rating on the stock.

- Focus on product launches and marketing: Our recent talks with the management indicated that the company is focused on launching two new 9(3) products (products which are launched for the first time in India) every year. In FY17, the company launched two products—Conika (tie-up with Hokko Chemicals, Japan, for controlling fungal diseases in horticulture crops) and Maxsoy (tie-up with Nissan Chemical, Japan, to control weeds in soya bean)—in the 9(3) category as well as three other 9(4) products. The company has launched a total of 16 products in the past 3 years, which have contributed to c.18-20% of revenues annually. Marketing of product launches is another focus area, as highlighted in the discussion with the management, and the ads with Amitabh Bachchan as brand ambassador, which are quite popular on regional channels, are an evidence of the same. The company earns c.50% of revenues from tie ups with c.9 global innovators (including FMC, Sumitomo and Mitsui). These are typically players with limited distribution channels in India, and the management considers these tie ups to be a key strength and an indication of the company's wide distribution reach.

- Top-line growth driven by rural play: We highlight that Dhanuka's outlook strongly depends on the monsoon scenario in India. The company witnessed muted revenue growth in FY15 and FY16 (5-6%) on two years of monsoon deficits. With FY17 monsoon going fairly well in Kharif (barring few states such as Karnataka, TN and Gujarat), the company's revenues have grown 9% in 9M17 (12% for 2H17—Kharif season, which was later hit by weaker Rabi in South India and demonetisation). The company earns c.75% of revenues from south and west India (primarily AP, Telangana, Maharashtra and MP) and the outlook on rice, cotton, fruits and vegetables in these states are a key monitorable.

Key Data – Bloomberg Ticker	
Current Market Price	Rs828
Market cap (bn)	Rs41.4/$0.6
Free Float	11.9%
Shares in issue (mn)	50
Diluted share (mn)	50
3-mon avg daily val (mn)	Rs26.3/US$0.4
52-week range	839/553
Sensex/Nifty	29,319/9,105
Rs/US$	64.6

Price Performance

%	1M	6M	12M
Absolute	3.9	27.0	34.8
Relative*	5.0	22.5	21.2

* To the BSE Sensex

Financial Summary (Rs mn)

Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Net sales	5,292	5,823	7,384	7,851	8,288
Sales growth (%)	7.4	10.0	26.8	6.3	5.6
EBITDA	794	819	1,206	1,317	1,398
EBITDA (%)	15.0	14.1	16.3	16.8	16.9
Adjusted net profit	571	644	931	1,061	1,073
EPS (Rs)	11.4	12.9	18.6	21.2	21.5
EPS growth (%)	7.6	12.8	44.6	13.9	1.1
ROCE (%)	25.8	24.8	29.2	27.3	23.7
ROE (%)	29.7	27.0	31.3	28.5	24.0
PE (x)	71.0	63.0	43.6	38.2	37.8
Price/Book value (x)	38.9	15.4	12.2	9.8	8.4
EV/EBITDA (x)	NA	49.8	34.0	30.5	28.4

Source: Company data, JM Financial. Note: Valuations as of 13 April 2017

Financial Tables (Standalone)

Profit & Loss			(Rs mn)		
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Net sales (Net of excise)	**5,292**	**5,823**	**7,384**	**7,851**	**8,288**
Growth (%)	7.4	10.0	26.8	6.3	5.6
Other operational income					
Raw material (or COGS)	3,426	3,811	4,597	4,921	5,057
Personnel cost	416	476	580	648	824
Other expenses (or SG&A)	656	717	1,001	965	1,008
EBITDA	**794**	**819**	**1,206**	**1,317**	**1,398**
EBITDA (%)	15.0	14.1	16.3	16.8	16.9
Growth (%)	-41.5	3.1	47.2	9.3	6.2
Other non-op. income	6	69	48	61	125
Depreciation and amort.	45	45	48	59	59
EBIT	**755**	**843**	**1,205**	**1,320**	**1,464**
Add: Net interest income	-55	-35	-42	-26	-11
Pre-tax profit	700	808	1,163	1,294	1,453
Taxes	129	163	232	233	380
Add: Extraordinary items					
Less: Minority interest					
Reported net profit	571	644	931	1,061	1,073
Adjusted net profit	**571**	**644**	**931**	**1,061**	**1,073**
Margin (%)	10.8	11.1	12.6	13.5	12.9
Diluted share cap. (mn)	50.03	50.04	50.02	50.02	50.03
Diluted EPS (Rs.)	**11.42**	**12.88**	**18.62**	**21.21**	**21.45**
Growth (%)	7.6	12.8	44.6	13.9	1.1
Total Dividend + Tax	128	163	234	271	392

Source: Company, JM Financial

Balance Sheet				(Rs mn)	
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Share capital	100	100	100	27	100
Other capital				73	
Reserves and surplus	2,046	2,528	3,225	4,023	4,704
Networth	2,146	2,628	3,325	4,123	4,805
Total loans	460	337	394	161	77
Minority interest					
Sources of funds	**2,606**	**2,964**	**3,719**	**4,284**	**4,882**
Intangible assets	3	6	13	23	20
Fixed assets	664	919	973	1,042	1,724
Less: Depn. and amort.	276	300	315	363	410
Net block	390	626	671	702	1,333
Capital WIP	3	13	223	385	1
Investments	153	82	10	470	921
Def tax assets/- liability	-26	-28	-36	-34	-83
Current assets	3,410	3,481	4,267	4,381	4,302
Inventories	1,388	1,599	2,113	1,917	1,726
Sundry debtors	1,512	1,507	1,703	1,939	1,858
Cash & bank balances	87	54	23	39	22
Other current assets	0	0	35	19	21
Loans & advances	424	321	393	468	676
Current liabilities & prov.	1,192	1,079	1,264	1,448	1,361
Current liabilities	1,041	975	1,116	1,140	1,317
Provisions and others	150	105	148	308	43
Net current assets	2,219	2,402	3,003	2,933	2,942
Others (net)	-133	-130	-151	-171	-233
Application of funds	**2,606**	**2,964**	**3,719**	**4,284**	**4,882**

Source: Company, JM Financial

Cash flow statement			(Rs mn)		
Y/E March	FY12A	FY13A	FY14E	FY15E	FY16A
Reported net profit	571	644	931	1,061	1,073
Depreciation and amort.	30	23	16	48	47
-Inc/dec in working cap.	-200	-273	-569	-15	449
Others	0	0	0	0	0
Cash from operations (a)	**401**	**394**	**378**	**1,094**	**1,569**
-Inc/dec in investments	-153	71	72	-460	-452
Capex	-32	-269	-270	-241	-295
Others	-37	56	-63	101	-475
Cash flow from inv. (b)	**-222**	**-141**	**-261**	**-600**	**-1,221**
Inc/-dec in capital	-2	0	0	8	0
Dividend+Tax thereon	-128	-163	-234	-271	-392
Inc/-dec in loans	-142	-123	57	-233	-84
Others	131	-1	29	18	111
Financial cash flow (c)	**-141**	**-287**	**-147**	**-478**	**-365**
Inc/-dec in cash (a+b+c)	38	-34	-31	16	-17
Opening cash balance	50	87	54	23	39
Closing cash balance	87	54	23	39	22

Source: Company, JM Financial

Key Ratios					
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
BV/Share (Rs)	20.9	52.5	66.4	82.4	96.1
ROCE (%)	25.8	24.8	29.2	27.3	23.7
ROE (%)	29.7	27.0	31.3	28.5	24.0
Net Debt/equity ratio (x)	0.1	0.1	0.1	-0.1	-0.2
Valuation ratios (x)					
PER	71.0	63.0	43.6	38.2	37.8
PBV	38.9	15.4	12.2	9.8	8.4
EV/EBITDA	NA	49.8	34.0	30.5	28.4
EV/Sales	15.8	7.0	5.5	5.1	4.8
Turnover ratios (no.)					
Debtor days	104	94	84	90	82
Inventory days	96	100	104	89	76
Creditor days	111	93	89	85	95

Source: Company, JM Financial

Finolex Industries Ltd. | Not Rated

Strong fundamentals & favourable ecosystem to drive growth

Mehul Thanawala
mehul.thanawala@jmfl.com | Tel: (+91 22) 66303063
Alok Ranjan
alok.ranjan@jmfl.com | Tel: (+91 22) 6630 3073
Pramod Krishna
pramod.krishna@jmfl.com | Tel: (+91 22) 66301074

Finolex Industries Ltd (FIL) is the largest manufacturer of poly vinyl chloride (PVC) pipes and fittings with a capacity of c.0.28mn tons per annum (MMTPA) and the second-largest player in PVC resin with a capacity of c.0.27 MMTPA (c.20% market share by capacity). The total market for PVC pipes is c.1.8 MMTPA, of which 60% is in the organised space; thus, FIL has c.25% of the organised market share (by capacity). With almost 70% of sales to agriculture, full backward integration into PVC resin, economies of scale and strong brand, FIL could be a key beneficiary of any improvement in the rural economy. During our rural trip, we witnessed increasing awareness of drip irrigation and brand recall for the company. The Government of India (GoI)'s focus towards the agriculture and infrastructure sector in the budget, GST implementation (benefitting organised players) and the effects of remonetisation could accelerate the growth trajectory.

- **Improved profitability and strong cash flow increases attractiveness:** FIL's 9MFY17 revenue grew 3.6% YoY to Rs 17.06bn on improvement in realisations in PVC pipes & fittings and the PVC resin business by 6.4% and 7% YoY, respectively. The 9MFY17 EBITDA improved significantly by 42.5% YoY owing to reduced raw material costs, higher spread between PVC-Ethylene Dichloride (EDC) and increased PVC captive consumption. FIL is planning to utilise c.90% (by FY18E) of the PVC resin produced for captive use from the current 60%. RoCE has improved c.12.5pp (FY16: 20.3, FY15: 7.8) and it will further improve on a lighter balance sheet and improved earnings. The company has reported strong cash flows with positive cash flow from operations since FY13.
- **Increased spread between commodities is driving margins:** FIL's 9MFY17 EBITDA improved significantly by 42.5% YoY, driven mainly by the improved spread between the PVC-EDC prices. The company can produce PVC resins through both EDC and the vinyl chloride monomer (VCM) routes. Average spread between EDC-PVC has improved to USD585 per tonne in 9MFY17 from USD502 per tonne during FY16 due to higher PVC prices. However, the spread between PVC-VCM indicate marginal improvement to USD133 per tonne in 9MFY17 from USD111 per tonne in FY16.
- **Key strategies driving growth:** FIL is focussing on four key strategies to drive profitability and growth; they are: **1) margin improvement**: by increasing the sales of higher margin products like fittings in the sales mix; **2) cash and carry model:** will help to keep the balance sheet light; **3) capacity augmentation:** an increase in installed capacities of PVC pipes and fittings to capture the expected increase in demand; and **4) focus on B2C segment:** high captive consumption of PVC resin and increased focus on branding since higher demand and revenue growth is expected from the B2C segment.
- **Strong distribution strength to drive sales:** With 700 dealers, and 17,000 direct and indirect retail outlets spread across the length and breadth of India, FIL generates c.40% revenue from western India, c.30% from the south, c.20% from north and c.10% from east. Strong focus on the eastern region will help drive revenue growth in the coming years.

Key Data

Current Market Price	Rs. 568
Market cap (bn)	Rs 70.50/US$1.1
Free Float	41.4%
Shares in issue (mn)	124.095
Diluted share (mn)	124.095
3-mon avg daily val (mn)	Rs54.2/US$0.8
52-week range	Rs600/350
Sensex/Nifty	29788/9237
Rs/US$	64.5

Price Performance

%	1M	6M	12M
Absolute	6.6	23.4	57.7
Relative*	3.7	17.3	39.2

* To the BSE Sensex

Financial Summary (Standalone) (Rs mn)

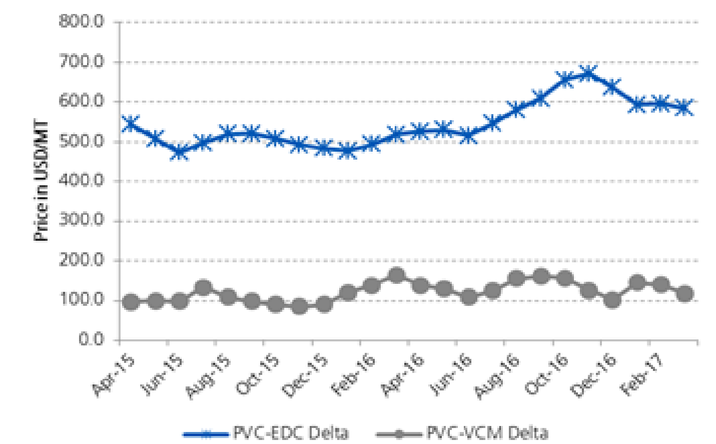
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Net sales	20,998	21,448	24,530	24,761	24,528
Sales growth (%)	6.2	2.1	14.4	0.9	-0.9
EBITDA	2,168	3,587	3,966	2,111	3,751
EBITDA (%)	10.3	16.7	16.2	8.5	15.3
Adjusted net profit	752	2,049	2,192	605	2,169
EPS (`)	6.1	16.5	17.7	4.9	17.5
EPS growth (%)	-1.4	172.7	7.0	-72.4	258.6
ROCE (%)	9.0	16.1	19.0	7.8	20.3
ROE (%)	11.7	29.6	29.0	7.7	24.9
PE (x)	94.4	34.6	32.4	NA	32.7
Price/Book value (x)	107.2	98.4	89.9	90.1	74.1
EV/EBITDA (x)	35.0	20.7	18.9	35.5	18.4

Source: Company data, JM Financial. Note: Valuations as of 12 /04 /2017

- **Favourable ecosystem:** FIL's pipe and fitting business will be favourably impacted by the: **1)** increased (24% YoY) budgetary allocation to Rs 1.87tn towards the rural and agricultural sector, **2)** increased allocation for irrigation corpus to Rs 400bn (FY17:200bn), **3)** raised disbursement target of Rs 10tn (FY17: Rs 9tn) of farm credit, **4)** infrastructure status provided to affordable housing, and **5)** proposal to complete construction of 1 crore houses by 2019 and high focus on sanitation coverage.

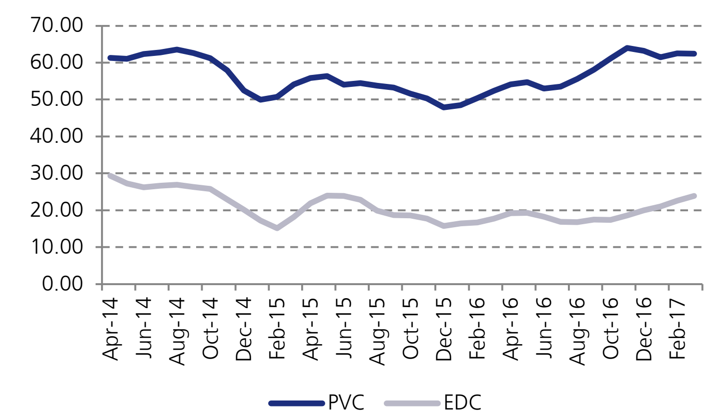
- **Join venture to add value:** Finolex Plasson Industries Pvt. Limited (FPIPL) is a leader in the field of micro irrigation in India. Our rural survey indicated increased awareness about alternate irrigation methods such as drip irrigation. This can be witnessed in the increased contribution to net earnings from c.Rs 92.4mn in FY15 to Rs 135.5mn in FY16. Moreover, the subsidy scheme by the central/state government is also encouraging farmers in water scarce regions to move toward drip irrigation.

Exhibit 134. PVC-EDC spread increased compared to PVC-VCM



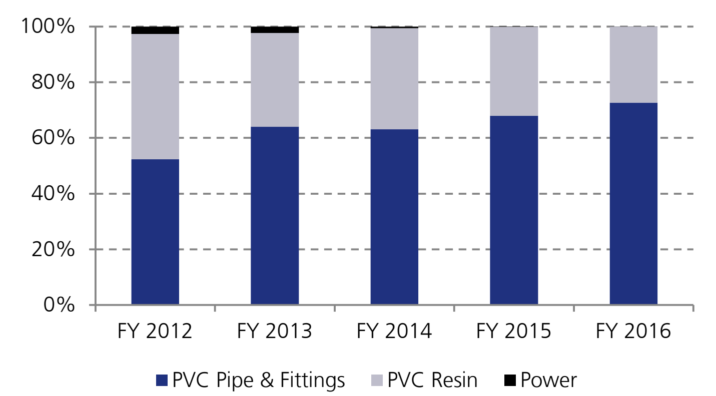
Source: Company, JM Financial, EDC: Ethylene Dichloride, VCM: Vinyl chloride monomer

Exhibit 135. Natural hedge, PVC price in high correlation with EDC price



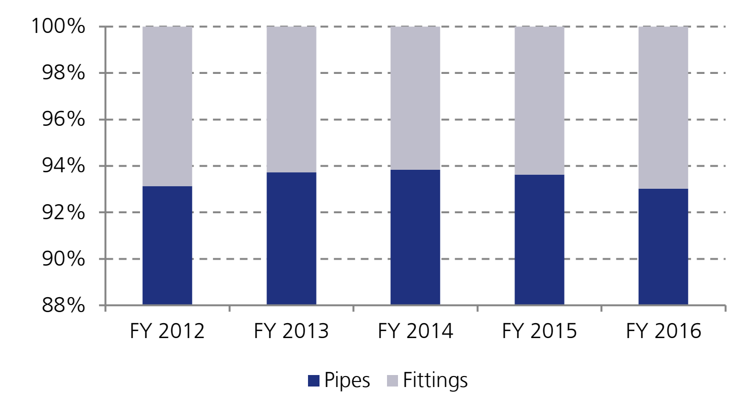
Source: Company, JM Financial

Exhibit 136. B2B to B2C, increased PVC resin captive consumption



Source: Company, JM Financial

Exhibit 137. Changing sales mix with increased share of fittings



Source: Company, JM Financial

Exhibit 137. 9MFY17 Key Indicators (Rs mn)

Y/E March	FY16A	9MFY16	9MFY17	YoY change
Income from Operations	24,528	16,473	17,062	3.6%
EBITDA	**3,751**	**2,638**	**3,759**	**42.50%**
EBITDA (%)	15.3%	16.0%	22.0%	-
EBIT	3,637	2,458	3,497	42.27%
EBIT (%)	14.8%	14.9%	20.5%	-
PBT	3,190	2,055	3,355	63.26%
PBT (%)	13.0%	12.5%	19.7%	-
PAT	**2,336**	**1,549**	**2,213**	**42.86%**
PAT (%)	9.5%	9.40%	13.0%	-
Net Debt/equity ratio (x)	-0.2	-0.2	-0.2	-
ROE	24.9	14.4	23.1	-
ROCE	20.3	15.5	21.8	-

Source: Company, JM Financial

Financial Tables (Standalone)

Profit & Loss			(Rs mn)		
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Net sales (Net of excise)	**20,998**	**21,448**	**24,530**	**24,761**	**24,528**
Growth (%)	6.2	2.1	14.4	0.9	-0.9
Other operational income					
Raw material (or COGS)	15,500	14,340	16,760	18,329	16,472
Personnel cost	564	719	717	740	934
Other expenses (or SG&A)	2,766	2,802	3,087	3,582	3,371
EBITDA	**2,168**	**3,587**	**3,966**	**2,111**	**3,751**
EBITDA (%)	10.3	16.7	16.2	8.5	15.3
Growth (%)	-1.3	65.5	10.6	-46.8	77.7
Other non-op. income	305	334	437	202	391
Depreciation and amort.	755	544	623	587	506
EBIT	1,717	3,377	3,780	1,726	3,637
Add: Net interest income	-750	-514	-664	-704	-446
Pre-tax profit	967	2,862	3,116	1,023	3,190
Taxes	216	540	717	330	1,099
Add: Exceptional items	0	-961	-698	-215	245
Add: Extraordinary items					
Less: Minority interest					
Reported net profit	752	1,361	1,701	478	2,336
Adjusted net profit	**752**	**2,049**	**2,192**	**605**	**2,169**
Margin (%)	3.6	9.6	8.9	2.4	8.8
Diluted share cap. (mn)	124.09	124.09	124.10	124.10	124.10
Diluted EPS (`.)	**6.06**	**16.52**	**17.67**	**4.87**	**17.48**
Growth (%)	-1.4	172.7	7.0	-72.4	258.6
Total Dividend + Tax	4,543	8,473	10,880	3,308	1,390

Source: Company, JM Financial

Balance Sheet				(Rs mn)	
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
Share capital	1,241	1,241	1,241	1,241	1,241
Other capital	0	0	0	0	0
Reserves and surplus	5,380	5,971	6,656	6,633	8,337
Networth	6,621	7,212	7,897	7,874	9,578
Total loans	10,124	7,106	6,559	5,871	1,117
Minority interest					
Sources of funds	**16,746**	**14,318**	**14,456**	**13,745**	**10,695**
Intangible assets	11	13	13	29	27
Fixed assets	16,255	17,694	18,481	18,901	19,185
Less: Depn. and amort.	8,426	8,912	9,442	10,253	10,715
Net block	7,840	8,795	9,052	8,678	8,496
Capital WIP	854	506	325	104	66
Investments	4,932	3,596	2,215	1,797	2,880
Def tax assets/- liability	-899	-936	-1,063	-1,108	-1,180
Current assets	6,478	7,105	7,770	8,013	6,752
Inventories	3,263	4,828	5,059	5,587	4,472
Sundry debtors	469	387	410	487	176
Cash & bank balances	291	90	209	123	104
Other current assets	0	0	0	0	0
Loans & advances	2,455	1,800	2,092	1,817	1,999
Current liabilities & prov.	3,149	4,611	3,757	3,649	6,203
Current liabilities	1,297	1,841	1,114	2,000	2,432
Provisions and others	1,852	2,770	2,643	1,649	3,772
Net current assets	3,329	2,494	4,013	4,364	548
Others (net)	689	-137	-85	-90	-116
Application of funds	**16,746**	**14,318**	**14,456**	**13,745**	**10,695**

Source: Company, JM Financial

Cash flow statement			(Rs mn)		
Y/E March	FY12A	FY13A	FY14E	FY15E	FY16A
Reported net profit	752	1,361	1,701	478	2,336
Depreciation and amort.	714	486	530	811	463
-Inc/dec in working cap.	404	-939	-981	282	1,857
Others	0	0	0	0	0
Cash from operations (a)	**1,869**	**908**	**1,250**	**1,570**	**4,656**
-Inc/dec in investments	-2,852	1,336	1,382	418	-1,084
Capex	-761	-1,093	-606	-215	-244
Others	-663	1,573	-419	-719	1,940
Cash flow from inv. (b)	**-4,276**	**1,816**	**357**	**-517**	**613**
Inc/-dec in capital	4,209	7,702	9,864	2,807	758
Dividend+Tax thereon	-4,543	-8,473	-10,880	-3,308	-1,390
Inc/-dec in loans	2,779	-3,018	-547	-689	-4,753
Others	-16	864	75	50	98
Financial cash flow (c)	**2,429**	**-2,925**	**-1,488**	**-1,139**	**-5,287**
Inc/-dec in cash (a+b+c)	22	-200	119	-86	-19
Opening cash balance	269	291	90	209	123
Closing cash balance	291	90	209	123	104

Source: Company, JM Financial

Key Ratios					
Y/E March	FY12A	FY13A	FY14A	FY15A	FY16A
BV/Share (`)	5.3	5.8	6.4	6.3	7.7
ROCE (%)	9.0	16.1	19.0	7.8	20.3
ROE (%)	11.7	29.6	29.0	7.7	24.9
Net Debt/equity ratio (x)	0.7	0.5	0.5	0.5	-0.2
Valuation ratios (x)					
PER	93.8	34.4	32.2	116.5	32.5
PBV	106.5	97.7	89.3	89.5	73.6
EV/EBITDA	34.8	20.6	18.8	35.3	18.3
EV/Sales	3.6	3.4	3.0	3.0	2.8
Turnover ratios (no.)					
Debtor days	8	7	6	7	3
Inventory days	57	82	75	82	67
Creditor days	31	47	24	40	54

Source: Company, JM Financial

M&M Financial | BUY

Recovery in sight

Improved crop outlook and increased budget allocation to the rural sector will boost farm income, which has remained under pressure for the past three years due to poor monsoons, demonetisation and slowdown in infra activities. With 80–90% of MMFS' branches in rural regions, it will be a direct beneficiary of any pick up in the rural economy. The management expects RoA to improve to 3% in FY18, if the monsoon is normal. It has maintained a healthy coverage ratio of 53%, which would provide some cushion to the credit costs, when it migrates to 90 DPD. Subsidiary performance has been healthy with housing subsidiary expanding at a CAGR of 56% in the past three years; the management expects similar growth trends to continue, as it expects c.25% of business from the semi-urban market. We believe MMFS is well placed to benefit from the rural recovery if government spending picks up. Maintain BUY with TP of Rs 340.

- **Rural economy to bounce back post-harvest:** Near-term adverse impact is significant due to issues relating to availability of currency. However, after the harvest season, we expect healthy cash flows for rural India, led by strong agriculture output, higher MSP and possible increase in government spending on rural infrastructure projects. We believe MMFS is well placed to benefit from rural recovery after short-term hiccups due to demonetisation. With 80-90% of MMFSRs branches in rural regions, it will be a direct beneficiary of any pick up in the rural economy.

- **Delayed pick up in rural economy could lead to stress on asset quality:** Rural economy was on the cusp of recovery due to good monsoon. However, demonetisation has adversely impacted the cash cycle for MMFS customers owing to lower supply of currency. Additionally, MMFS has to migrate to 90 DPD by FY18 (from 120DPD currently), which could also exert some pressure. Thus, conservatively we have factored in significantly higher credit costs of 230bps over the next three years.

- **Despite slowdown, investment in distribution network continues:** MMFS has added 510 branches in the past three years (which is 44% of its existing branch network). Despite a slowdown in business, continuous investment in the distribution network augurs well for the company aiding collection initially and supporting growth later.

- **Subsidiaries to add significant value:** a) Housing Finance—portfolio has grown at 56% CAGR in past three 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 and management believes growth momentum will continue and expects 50% growth over the next two years. b) AMC Business—will focus on rural and semi-urban markets with capital protection products and group employees leveraging further on parent M&M relationship to sell these products.

- **Near-term challenges can provide attractive entry opportunity**: We expect earnings CAGR of c.22% over FY16-19E and return ratios with RoA of 2.4% and RoE of 16% by FY19E. We value MMFS standalone at 2.1x Mar'19 BV, implying a value of Rs 305, MRHF at Rs 20 per share and MIBL at Rs 15 per share, implying a Mar'18 TP of Rs 340.

Financial Summary					(Rs mn)
Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Net Profit	8,317	6,726	7,018	10,151	13,042
Net Profit (YoY) (%)	-6.3%	-19.1%	4.3%	44.6%	28.5%
Assets (YoY) (%)	10.8%	12.8%	12.5%	16.3%	12.9%
ROA (%)	2.5%	1.8%	1.7%	2.1%	2.4%
ROE (%)	15.5%	11.5%	11.1%	13.4%	14.4%
EPS	14.7	11.9	12.4	16.8	21.6
EPS (YoY) (%)	-6.4%	-19.2%	4.3%	35.1%	28.5%
PE (x)	**22.6**	**28.0**	**26.8**	**19.8**	**15.4**
BV	100	107	116	143	157
BV (YoY) (%)	11.0%	7.2%	7.9%	23.2%	10.3%
P/BV (x)	**3.32**	**3.10**	**2.87**	**2.33**	**2.12**

Source: Company data, JM Financial. Note: Valuations as of 13/Apr/2017

Karan Singh
karan.uberoi@jmfl.com | Tel: (+91 22) 66303082
Nikhil Walecha
nikhil.walecha@jmfl.com | Tel: (+91 22) 66303027
Jayant Kharote
jayant.kharote@jmfl.com | Tel: (+91 22) 66303099

Recommendation and Price Target	
Current Reco.	BUY
Previous Reco.	BUY
Current Price Target (12M)	340
Upside/(Downside)	2.3%
Previous Price Target	380
Change	-10.5%

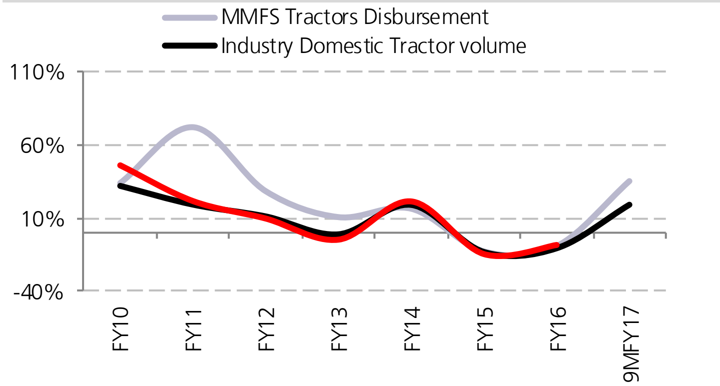
Key Data – MMFS IN	
Current Market Price	Rs333
Market cap (bn)	Rs189.1/US$2.9
Free Float	45%
Shares in issue (mn)	564.1
Diluted share (mn)	
3-mon avg daily val (mn)	Rs891.6/US$0.9
52-week range	405/244
Sensex/Nifty	29,461/9,151
Rs/US$	64.4

Price Performance			
%	1M	6M	12M
Absolute	20.8	-10.1	22.3
Relative*	18.7	-15.6	6.4

* To the BSE Sensex

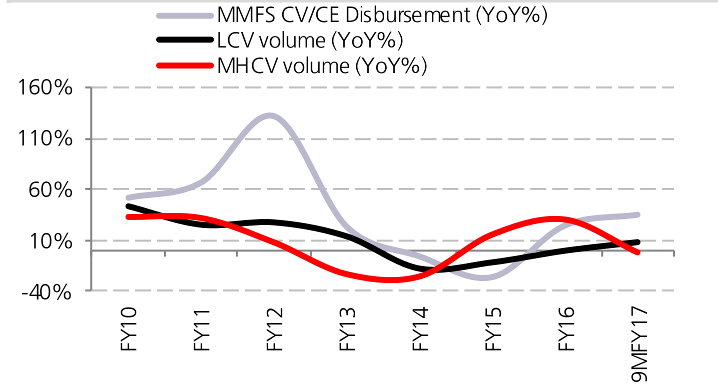
- **Pick up in tractor and CV growth trend is encouraging, but auto/UV sales remain sluggish:** While tractor (19% in 9MFY17) and UV (12.5% in 9MFY17) demand is witnessing some recovery, CV volumes were sluggish YoY. Improvement in tractor volumes was driven by better rainfall and improvement in construction and allied activities in some areas. Consequently, MMFS' tractor disbursements have improved to 35% YoY in 9MFY17, while auto and UV (7% YoY in 9MFY17) have been sluggish. The CV/CE disbursement growth was, however, encouraging with 35% YoY in 9MFY17.

Exhibit 138. Tractors volumes and MMFS disbursement trend



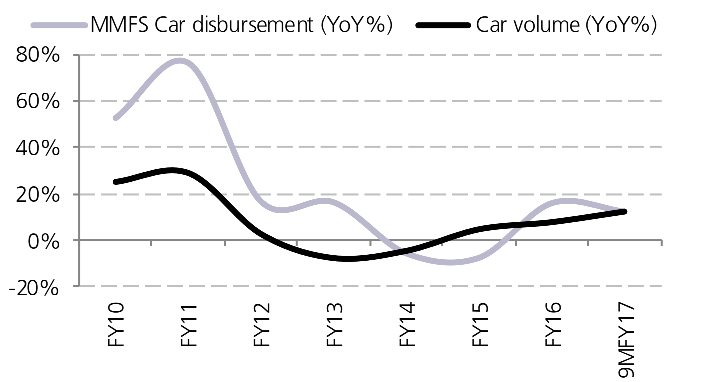
Source: CMIE, Company data

Exhibit 139. CV volumes and MMFS disbursement trend



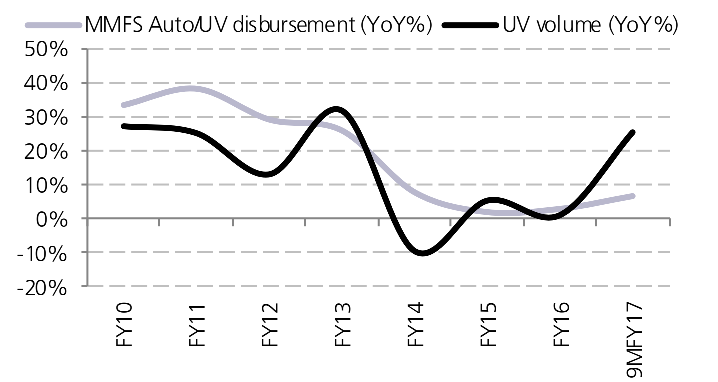
Source: CMIE, Company data

Exhibit 140. Car volumes and MMFS disbursement trend



Source: CMIE , Company, JM Financial

Exhibit 141. Auto/UV volumes and MMFS disbursement trend

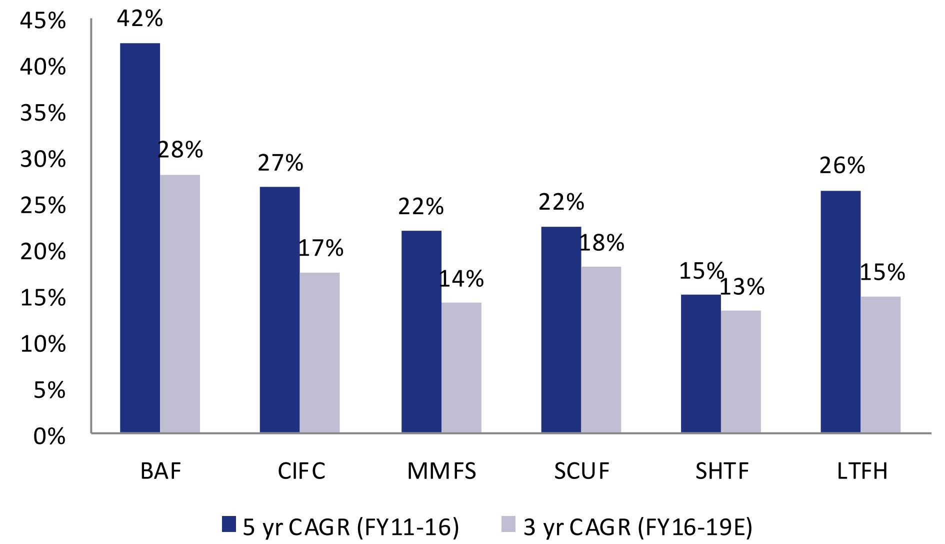


Source: CMIE, Company, JM Financial

- **Long-term structural drivers intact for rural economy:** Given weak sentiment in farming and lower income levels, consumption demand in the near term looks subdued. However, we believe long-term structural trends for rural India remain firm on: (a) increasing profitability through cash crops and allied activities, (b) more diversification through non-farming income, (c) targeted direct benefit transfer, and (d) usage of higher mechanisation and awareness of technical advancements.

- **Estimates remain conservative; expect some pick up in AUM growth in FY18 if the monsoon is normal:** We expect some pick up in AUM growth in FY18, but our estimates remain conservative due to uncertainty surrounding El Nino. For instance, in the case of MMFS, we are factoring 14% growth in AUM for FY18E and 15% for FY19E. For NBFCs under coverage we expect 13–28% growth in AUM over FY17-19E, as shown in the following table:

Exhibit 142. AUM growth trends in NBFCs under coverage



Source: Company, JM Financial

- **Prefer MMFS as top pick among rural NBFCs:** We believe MMFS is well placed to benefit from rural recovery, given normal monsoon and pick up in government spending; we prefer Mahindra Finance as a top pick in the rural space.

Exhibit 143. Peer valuations

	RoA (%)				RoE (%)				P/B				P/E			
NBFC	FY16	FY17E	FY18E	FY19E	FY16	FY17E	FY18E	FY19E	FY16	FY17E	FY18E	FY19E	FY16	FY17E	FY18E	FY19E
CIFC	2.20%	2.36%	2.34%	2.50%	18.0%	17.8%	17.6%	19.1%	4.13	3.55	3.06	2.60	26.6	21.4	18.6	14.7
MMFS	1.80%	1.77%	2.27%	2.42%	11.5%	11.6%	14.8%	15.9%	2.93	2.71	2.45	2.20	26.4	24.3	17.3	14.6
SHTF	1.85%	2.04%	2.11%	2.30%	12.2%	13.9%	14.8%	16.6%	2.37	2.13	1.89	1.66	20.5	16.2	13.5	10.6
SCUF	2.72%	2.71%	2.70%	2.73%	12.3%	12.9%	13.6%	14.6%	3.24	2.94	2.65	2.36	27.6	23.8	20.4	17.1

Source: Company, JM Financial

Financial Tables (Standalone)

Income Statement (Rs mn)

Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Net Interest Income	30,477	32,246	37,097	43,647	50,888
Profit on Investments	48	11	100	100	100
Exchange Income	0	0	0	0	0
Fee & Other Income	354	402	442	508	584
Non-Interest Income	403	412	542	608	684
Total Income	30,879	32,658	37,638	44,255	51,573
Operating Expenses	10,068	11,781	14,431	16,993	19,694
Pre-provisioning Profits	20,811	20,877	23,207	27,263	31,879
Loan-Loss Provisions	8,275	10,495	12,574	11,883	11,814
Provisions on Investments	0	0	0	0	0
Others Provisions	0	0	0	0	0
Total Provisions	8,275	10,495	12,574	11,883	11,814
PBT	12,536	10,382	10,633	15,380	20,065
Tax	4,219	3,656	3,615	5,229	7,023
PAT (Pre-Extraordinaries)	8,317	6,726	7,018	10,151	13,042

Source: Company, JM Financial

Balance Sheet (Rs mn)

Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Equity Capital	1,128	1,129	1,129	1,209	1,209
Reserves & Surplus	55,402	59,508	64,280	85,102	93,971
Deposits	0	0	0	0	0
Borrowings	262,633	294,523	334,284	378,743	429,684
Other Liabilities	31,414	40,391	45,453	52,883	59,681
Total Liabilities	**350,741**	**395,795**	**445,402**	**518,207**	**584,829**
Investments	8,537	14,833	16,888	28,257	21,669
Net Advances	329,298	366,578	411,899	470,954	541,731
Cash & Equivalents	7,038	6,221	7,002	7,771	8,939
Fixed Assets	1,101	1,135	1,277	1,486	1,677
Other Assets	0	0	0	0	0
Total Assets	**350,741**	**395,795**	**445,402**	**518,207**	**584,829**

Source: Company, JM Financial

Key Ratios

Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Growth (YoY) (%)					
Deposits	0.0%	0.0%	0.0%	0.0%	0.0%
Advances	11.2%	11.3%	12.4%	14.3%	15.0%
Total Assets	10.8%	12.8%	12.5%	16.3%	12.9%
NII	11.3%	5.8%	15.0%	17.7%	16.6%
Non-interest Income	50.2%	2.5%	31.4%	12.2%	12.5%
Operating Expenses	10.2%	17.0%	22.5%	17.7%	15.9%
Operating Profits	12.4%	0.3%	11.2%	17.5%	16.9%
Core Operating profit	-8.0%	-13.3%	-1.1%	44.6%	34.3%
Provisions	63.6%	26.8%	19.8%	-5.5%	-0.6%
Reported PAT	-6.3%	-19.1%	4.3%	44.6%	28.5%
Yields / Margins (%)					
Interest Spread	6.94%	6.54%	6.84%	7.08%	7.21%
NIM	9.28%	8.80%	9.01%	9.26%	9.43%
Profitability (%)					
Non-IR to Income	1.3%	1.3%	1.4%	1.4%	1.3%
Cost to Income	32.6%	36.1%	38.3%	38.4%	38.2%
ROA	2.49%	1.80%	1.67%	2.11%	2.36%
ROE	15.5%	11.5%	11.1%	13.4%	14.4%
Assets Quality (%)					
Slippages	0.00%	0.00%	0.00%	0.00%	0.00%
Gross NPA	6.14%	8.34%	9.95%	9.88%	9.57%
Net NPAs	2.48%	3.37%	4.74%	5.00%	5.03%
Provision Coverage	61.0%	61.7%	55.0%	52.0%	50.0%

Source: Company, JM Financial

Dupont Analysis

Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
NII / Assets	9.13%	8.64%	8.82%	9.06%	9.23%
Other Income / Assets	0.12%	0.11%	0.13%	0.13%	0.12%
Total Income / Assets	9.25%	8.75%	8.95%	9.19%	9.35%
Cost / Assets	3.02%	3.16%	3.43%	3.53%	3.57%
PBP / Assets	6.24%	5.59%	5.52%	5.66%	5.78%
Provisions / Assets	2.48%	2.81%	2.99%	2.47%	2.14%
PBT / Assets	3.76%	2.78%	2.53%	3.19%	3.64%
Tax rate	33.7%	35.2%	34.0%	34.0%	35.0%
ROA	2.49%	1.80%	1.67%	2.11%	2.36%
RoRWAs	2.56%	1.79%	1.66%	2.11%	2.36%
Leverage	6.2	6.5	6.8	6.0	6.1

Source: Company, JM Financial

Valuations

Y/E March	FY15A	FY16A	FY17E	FY18E	FY19E
Shares in Issue	564.1	564.6	564.6	604.6	604.6
EPS (Rs)	14.7	11.9	12.4	16.8	21.6
EPS (YoY) (%)	-6.4%	-19.2%	4.3%	35.1%	28.5%
PER (x)	22.6	28.0	26.8	19.8	15.4
BV (Rs)	100	107	116	143	157
BV (YoY) (%)	11.0%	7.2%	7.9%	23.2%	10.3%
ABV (Rs)	144	156	156	119	157
ABV (YoY) (%)	0.3%	8.7%	0.0%	-24.0%	32.6%
P/BV (x)	3.32	3.10	2.87	2.33	2.12

Source: Company, JM Financial

JM FINANCIAL

V-Mart Retail | Not Rated

Value-fashion focus and rural recovery drives attractiveness

Vicky Punjabi
vicky.punjabi@jmfl.com | +91-22-66303065
Richard Liu
richard.liu@jmfl.com | +91-22-66303064

V-Mart is a chain of 136 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, where consumers are largely dependent on agriculture and government for their incomes. Its portfolio consists of low price-point products and targeted towards lower income rural/mid-tier city consumers. Recent results have been impacted by weak rural demand (like-to-like growth slipped to -1.1% in FY16 vs. 11-14% over FY12-14 and 6.5% in FY15), resulting in a sharp margin contraction and c.30% decline in earnings in FY16. However, a good monsoon in FY17 has resulted in LTL growth increasing to 8% in 3QFY17 and the company remains confident of maintaining this growth in the near future. A double-digit LTL generally tends to drive EBITDA margin in double digits vs. 9.2% for 9MFY17. Consensus is currently forecasting 20%/24% revenue/EBITDA CAGR (FY17-19), respectively, and it is presently quoting at 17.6x FY18 EBITDA, despite the recent strong run-up. Overall, V-Mart looks well-positioned to leverage value fashion/rural recovery trends.

- **Growing rural incomes and focus on value fashion to drive growth:** V-Mart's stores are located in mid-tier cities, where customers are quite price conscious and buying behaviour is primarily determined by rural incomes. It has high exposure to lower price point apparels (with average selling price of Rs200 for FY16) with complete focus on the value fashion segment. Presently, value fashion as a category is witnessing healthy growth rates due to consumer's preference for fast fashion. Given strong growth opportunity in this category and an improved scenario for growth in rural incomes, V-Mart could revert back to the strong growth trends witnessed in the past (EBITDA reported a CAGR of 35% over FY11-15). Early signs of recovery have been witnessed in 3QFY17 results as like-to-like growth recovered to 8% vs. 4% to 2% in the preceding four quarters.

- **Good cash flow generation potential and ability to drive high return ratios increases attractiveness of the business model:** 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%), though return ratios have been slightly depressed in FY16 (RoE and RoCE declined to 12-13%) on poor consumer demand coupled with high retail space expansion. Improved apparels demand should help scale-up return ratios back to high-teens level as witnessed earlier. It has also managed working capital quite efficiently, which declined from 18% in FY14 to 12% in FY16 and has helped achieve positive FCF in FY16, despite margin compression. Valuations at c.18x FY18 on EV/EBITDA (consensus expectations) also does not appear to be demanding, given the growth opportunity. Given expectations of a strong 24% EBITDA CAGR, valuations multiple should at least sustain near current levels, in our view.

Key Data – Bloomberg Ticker	
Current Market Price	Rs898
Market cap (bn)	Rs16/US$0.25
Free Float	42.2%
Shares in issue (mn)	18.1
Diluted share (mn)	18.1
3-mon avg daily val (mn)	Rs125.1/US$1.9
52-week range	Rs969/425
Sensex/Nifty	29,405/9,137
Rs/US$	64.5

Price Performance			
%	1M	6M	12M
Absolute	16.2	80.0	78.7
Relative*	16.3	73.7	64.0

* To the BSE Sensex

Financial Summary					(Rs mn)
Y/E March	FY12	FY13	FY14	FY15	FY16
Net sales	2,819	3,835	5,750	7,202	8,094
Sales growth (%)	31.3	36.0	49.9	25.3	12.4
EBITDA	282	392	523	636	622
EBITDA (%)	10.0	10.2	9.1	8.8	7.7
Adjusted net profit	105	180	252	385	268
EPS (Rs)	7.5	10.0	14.0	21.4	14.8
EPS growth (%)	-11.4	33.8	39.7	52.6	-30.5
ROCE (%)	17.2	16.8	14.8	18.6	11.9
ROE (%)	21.3	17.8	15.8	20.5	12.3
PE (x)	NA	89.6	64.1	42.0	60.5
Price/Book value (x)	23.1	10.9	9.5	7.9	7.0
EV/EBITDA (x)	45.8	40.7	31.0	25.5	25.9

Source: Company data, JM Financial. Note: Valuations as of 13-04-2017

Financial Tables

Profit & Loss Statement					(Rs mn)
Y/E March	FY12	FY13	FY14	FY15	FY16
Net sales	**2,819**	**3,835**	**5,750**	**7,202**	**8,094**
Growth (%)	31.3	36.0	49.9	25.3	12.4
Other operational income					
Raw material (or COGS)	1,979	2,613	3,969	5,141	5,712
Personnel cost	171	250	383	489	623
Other expenses (or SG&A)	387	581	875	936	1,138
EBITDA	**282**	**392**	**523**	**636**	**622**
EBITDA (%)	10.0	10.2	9.1	8.8	7.7
Growth (%)	45.9	38.7	33.5	21.7	-2.3
Other non-op. income	1	8	7	22	10
Depreciation and amort.	58	76	109	46	190
EBIT	225	324	421	612	442
Add: Net interest income	-67	-58	-42	-42	-31
Pre tax profit	157	266	378	571	411
Taxes	53	86	127	186	142
Add: Extraordinary items	0	0	0	-11	7
Less: Minority interest	0	0	0	0	0
Reported net profit	105	180	252	374	276
Adjusted net profit	**105**	**180**	**252**	**385**	**268**
Margin (%)	3.7	4.7	4.4	5.3	3.3
Diluted share cap. (mn)	14	18	18	18	18
Diluted EPS (Rs.)	**7.5**	**10.0**	**14.0**	**21.4**	**14.8**
Growth (%)	-11.4	33.8	39.7	52.6	-30.5
Total Dividend + Tax	3	15	27	33	27

Balance Sheet					(Rs mn)
Y/E March	FY12	FY13	FY14	FY15	FY16
Share capital	73	180	180	180	181
Other capital	0	0	0	0	0
0 Reserves and surplus	469	1,297	1,522	1,869	2,127
Networth	542	1,477	1,702	2,049	2,307
Total loans	412	354	438	306	270
Minority interest	0	0	0	0	0
Sources of funds	**954**	**1,831**	**2,139**	**2,355**	**2,577**
Intangible assets	0	0	0	0	0
Fixed assets	551	765	1,096	1,421	1,750
Less: Depn. and amort.	215	291	397	441	631
Net block	336	474	700	981	1,119
Capital WIP	8	13	10	7	7
Investments	0	406	342	218	324
Def tax assets/- liability	6	7	22	6	42
Current assets	983	1,396	1,862	2,077	2,340
Inventories	869	1,108	1,677	1,832	2,044
Sundry debtors	1	0	0	0	0
Cash & bank balances	19	158	23	34	43
Other current assets	0	0	0	0	0
Loans & advances	94	131	162	212	253
Current liabilities & prov.	372	457	766	870	1,255
Current liabilities	352	440	720	817	1,173
Provisions and others	20	17	46	53	82
Net current assets	611	940	1,096	1,207	1,085
Others (net)	-7	-10	-31	-64	0
Application of funds	**954**	**1,831**	**2,139**	**2,355**	**2,577**

Cash Flow statement					(Rs mn)
Y/E March	FY12	FY13	FY14	FY15	FY16
Reported net profit	105	180	252	374	276
Depreciation and amort.	215	76	106	44	190
-Inc/dec in working cap.	-65	-150	-289	-58	144
Others	0	0	0	0	0
Cash from operations (a)	**254**	**106**	**68**	**360**	**610**
-Inc/dec in investments	0	-406	64	124	-106
Capex	-292	-220	-328	-322	-329
Others	10	-41	-2	-43	-12
Cash flow from inv. (b)	**-282**	**-667**	**-266**	**-240**	**-446**
Inc/-dec in capital	2	770	0	7	9
Dividend+Tax thereon	-3	-15	-27	-33	-27
Inc/-dec in loans	34	-57	83	-132	-36
Others	0	2	6	49	-100
Financial cash flow (c)	**32**	**699**	**63**	**-109**	**-155**
Inc/-dec in cash (a+b+c)	5	138	-135	10	9
Opening cash balance	15	19	158	23	34
Closing cash balance	20	158	23	34	43

Key Ratios					
Y/E March	FY12	FY13	FY14	FY15	FY16
BV/Share (Rs)	38.9	82.2	94.7	113.7	127.7
ROCE (%)	17.2	16.8	14.8	18.6	11.9
ROE (%)	21.3	17.8	15.8	20.5	12.3
Net Debt/equity ratio (x)	0.7	-0.1	0.0	0.0	0.0
Valuation ratios (x)					
PER	NA	89.6	64.1	42.0	60.5
PBV	23.1	10.9	9.5	7.9	7.0
EV/EBITDA	45.8	40.7	31.0	25.5	25.9
EV/Sales	4.6	4.2	2.8	2.3	2.0
Turnover ratios (no.)					
Debtor days	0	0	0	0	0
Inventory days	113	105	106	93	92
Creditor days	288	266	205	181	178

Appendix 1: Crop Economics

Exhibit 144. Per acre farm economics for rice—realisation/cost expected to marginally improve in FY18

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	13.5	14.5	14.9	14.6	14.4	14.4	14.8	15.3
Realisation/Quintal	Rs/Quintal	1,030	1,110	1,280	1,345	1,400	1,450	1,510	1,572
By-product	Rs/Acre	1,231	1,463	1,610	1,764	1,800	1,754	1,764	1,800
Total Realisation	**Rs/Acre**	**15,162**	**17,508**	**20,639**	**21,424**	**22,021**	**22,656**	**24,183**	**25,847**
% YoY	% YoY	5.6	15.5	17.9	3.8	2.8	2.9	6.7	6.9
Human Labour	Rs/Acre	3,081	3,296	3,629	3,718	3,936	4,156	4,388	4,599
Machine Labour	Rs/Acre	1,256	1,364	1,509	1,623	1,730	1,840	1,956	2,063
Animal Labour	Rs/Acre	649	840	833	972	1,035	1,098	1,166	1,228
Seeds	Rs/Acre	649	697	744	823	839	818	838	829
Fertilizers & manure	Rs/Acre	1,112	1,419	1,757	1,727	1,757	1,793	1,808	1,819
Pesticides & Insecticides	Rs/Acre	246	296	324	335	361	366	366	381
Water & Electricity	Rs/Acre	397	480	567	531	446	464	441	436
Working Capital	Rs/Acre	231	262	293	304	310	302	310	306
Miscellaneous	Rs/Acre	7	6	5	5	5	5	5	5
Total Cost	**Rs/Acre**	**7,629**	**8,660**	**9,661**	**10,037**	**10,419**	**10,842**	**11,277**	**11,666**
% YoY	% YoY	11.0	13.5	11.6	3.9	3.8	4.1	4.0	3.4
Total Profit	**Rs/Acre**	**7,533**	**8,848**	**10,978**	**11,387**	**11,602**	**11,814**	**12,906**	**14,182**
Realisation/Cost	x	**1.99**	**2.02**	**2.14**	**2.13**	**2.11**	**2.09**	**2.14**	**2.22**
Rice - Total Profit - YoY (%)		**0.6**	**17.5**	**24.1**	**3.7**	**1.9**	**1.8**	**9.2**	**9.9**

Source: JM Financial

Exhibit 145. Per acre farm economics for wheat—realisation/cost expected to be largely stable

		2011	2012	2013	2014	2015	2016	2017	2018
Yield Quintal/Acre	Quintal/Acre	12.1	12.9	12.6	12.7	11.1	13.1	13.1	13.2
Realisation/Quintal	Rs/Quintal	1,120	1,285	1,350	1,400	1,450	1,525	1,625	1,723
By-product	Rs/Acre	2,958	3,341	3,683	4,321	4,409	3,702	3,765	3,777
Total Realisation	**Rs/Acre**	**16,504**	**19,863**	**20,709**	**22,142**	**20,545**	**23,605**	**25,079**	**26,483**
% YoY	% YoY	9.3	20.4	4.3	6.9	(7.2)	14.9	6.2	5.6
Human Labour	Rs/Acre	986	1,155	1,242	1,384	1,486	1,591	1,702	1,821
Machine Labour	Rs/Acre	1,894	2,081	2,346	2,571	2,742	2,915	3,099	3,294
Animal Labour	Rs/Acre	234	167	195	204	199	195	191	184
Seeds	Rs/Acre	853	871	992	1,117	1,140	957	973	1,029
Fertilizers & manure	Rs/Acre	1,012	1,360	1,634	1,634	1,662	1,668	1,694	1,788
Pesticides & Insecticides	Rs/Acre	107	110	135	141	152	105	105	109
Water & Electricity	Rs/Acre	1,040	1,261	1,252	1,248	1,048	1,066	1,013	1,003
Working Capital	Rs/Acre	192	219	244	259	265	222	226	239
Miscellaneous	Rs/Acre	7	5	3	2	2	2	2	2
Total Cost	**Rs/Acre**	**6,325**	**7,229**	**8,043**	**8,563**	**8,697**	**8,720**	**9,004**	**9,469**
% YoY	% YoY	7.8	14.3	11.3	6.5	1.6	0.3	3.3	5.2
Total Profit	**Rs/Acre**	**10,178**	**12,634**	**12,666**	**13,579**	**11,848**	**14,885**	**16,075**	**17,014**
Realisation/Cost	x	**2.61**	**2.75**	**2.57**	**2.59**	**2.36**	**2.71**	**2.79**	**2.80**
Wheat- Total Profit - YoY (%)		10.2	24.1	0.3	7.2	-12.7	25.6	8.0	5.8

Source: JM Financial

APPENDIX I

JM Financial Institutional Securities Limited

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

Definition of ratings	
Rating	Meaning
Buy	Total expected returns of more than 15%. Total expected return includes dividend yields.
Hold	Price expected to move in the range of 10% downside to 15% upside from the current market price.
Sell	Price expected to move downwards by more than 10%

Research Analyst(s) Certification

The Research Analyst(s), with respect to each issuer and its securities covered by them in this research report, certify that:

All of the views expressed in this research report accurately reflect his or her or their personal views about all of the issuers and their securities; and

No part of his or her or their compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

Important Disclosures

This research report has been prepared by JM Financial Institutional Securities Limited (JM Financial Institutional Securities) to provide information about the company(ies) and sector(s), if any, covered in the report and may be distributed by it and/or its associates solely for the purpose of information of the select recipient of this report. This report and/or any part thereof, may not be duplicated in any form and/or reproduced or redistributed without the prior written consent of JM Financial Institutional Securities. This report has been prepared independent of the companies covered herein.

JM Financial Institutional Securities is registered with the Securities and Exchange Board of India (SEBI) as a Research Analyst, Merchant Banker and a Stock Broker having trading memberships of the BSE Ltd. (BSE), National Stock Exchange of India Ltd. (NSE) and Metropolitan Stock Exchange of India Ltd. (MSEI). No material disciplinary action has been taken by SEBI against JM Financial Institutional Securities in the past two financial years which may impact the investment decision making of the investor.

JM Financial Institutional Securities provides a wide range of investment banking services to a diversified client base of corporates in the domestic and international markets. It also renders stock broking services primarily to institutional investors and provides the research services to its institutional clients/investors. JM Financial Institutional Securities and its associates are part of a multi-service, integrated investment banking, investment management, brokerage and financing group. JM Financial Institutional Securities and/or its associates might have provided or may provide services in respect of managing offerings of securities, corporate finance, investment banking, mergers & acquisitions, broking, financing or any other advisory services to the company(ies) covered herein. JM Financial Institutional Securities and/or its associates might have received during the past twelve months or may receive compensation from the company(ies) mentioned in this report for rendering any of the above services.

JM Financial Institutional Securities and/or its associates, their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) covered under this report or (c) act as an advisor or lender/borrower to, or may have any financial interest in, such company(ies) or (d) considering the nature of business/activities that JM Financial Institutional Securities is engaged in, it may have potential conflict of interest at the time of publication of this report on the subject company(ies).

Neither JM Financial Institutional Securities nor its associates or the Research Analyst(s) named in this report or his/her relatives individually own one per cent or more securities of the company(ies) covered under this report, at the relevant date as specified in the SEBI (Research Analysts) Regulations, 2014.

The Research Analyst(s) principally responsible for the preparation of this research report and members of their household are prohibited from buying or selling debt or equity securities, including but not limited to any option, right, warrant, future, long or short position issued by company(ies) covered under this report. The Research Analyst(s) principally responsible for the preparation of this research report or their relatives (as defined under SEBI (Research Analysts) Regulations, 2014); (a) do not have any financial interest in the company(ies) covered under this report or (b) did not receive any compensation from the company(ies) covered under this report, or from any third party, in connection with this report or (c) do not have any other material conflict of interest at the time of publication of this report. Research Analyst(s) are not serving as an officer, director or employee of the company(ies) covered under this report.

While reasonable care has been taken in the preparation of this report, it does not purport to be a complete description of the securities, markets or developments referred to herein, and JM Financial Institutional Securities does not warrant its accuracy or completeness. JM Financial Institutional Securities may not be in any way responsible for any loss or damage that may arise to any person from any inadvertent error in the information contained in this report. This report is provided for information only and is not an investment advice and must not alone be taken as the basis for an investment decision. The investment discussed or views expressed or recommendations/opinions given herein may not be suitable for all investors. The user assumes the entire risk of any use made of this information. The information contained herein may be changed without notice and JM Financial Institutional Securities reserves the right to make modifications and alterations to this statement as they may deem fit from time to time.

This report is neither an offer nor solicitation of an offer to buy and/or sell any securities mentioned herein and/or not an official confirmation of any transaction.

This report is not directed or intended for distribution to, or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject JM Financial Institutional Securities and/or its affiliated company(ies) to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to a certain category of investors. Persons in whose possession this report may come, are required to inform themselves of and to observe such restrictions.

Persons who receive this report from JM Financial Singapore Pte Ltd may contact Mr. Ruchir Jhunjhunwala (ruchir.jhunjhunwala@jmfl.com) on +65 6422 1888 in respect of any matters arising from, or in connection with, this report.

Additional disclosure only for U.S. persons: JM Financial Institutional Securities has entered into an agreement with JM Financial Securities, Inc. ("JM Financial Securities"), a U.S. registered broker-dealer and member of the Financial Industry Regulatory Authority ("FINRA") in order to conduct certain business in the United States in reliance on the exemption from U.S. broker-dealer registration provided by Rule 15a-6, promulgated under the U.S. Securities Exchange Act of 1934 (the "Exchange Act"), as amended, and as interpreted by the staff of the U.S. Securities and Exchange Commission ("SEC") (together "Rule 15a-6").

This research report is distributed in the United States by JM Financial Securities in compliance with Rule 15a-6, and as a "third party research report" for purposes of FINRA Rule 2241. In compliance with Rule 15a-6(a)(3) this research report is distributed only to "major U.S. institutional investors" as defined in Rule 15a-6 and is not intended for use by any person or entity that is not a major U.S. institutional investor. If you have received a copy of this research report and are not a major U.S. institutional investor, you are instructed not to read, rely on, or reproduce the contents hereof, and to destroy this research or return it to JM Financial Institutional Securities or to JM Financial Securities.

This research report is a product of JM Financial Institutional Securities, which is the employer of the research analyst(s) solely responsible for its content. The research analyst(s) preparing this research report is/are resident outside the United States and are not associated persons or employees of any U.S. registered broker-dealer. Therefore, the analyst(s) are not subject to supervision by a U.S. broker-dealer, or otherwise required to satisfy the regulatory licensing requirements of FINRA and may not be subject to the Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

JM Financial Institutional Securities only accepts orders from major U.S. institutional investors. Pursuant to its agreement with JM Financial Institutional Securities, JM Financial Securities effects the transactions for major U.S. institutional investors. Major U.S. institutional investors may place orders with JM Financial Institutional Securities directly, or through JM Financial Securities, in the securities discussed in this research report.

Additional disclosure only for U.K. persons: Neither JM Financial Institutional Securities nor any of its affiliates is authorised in the United Kingdom (U.K.) by the Financial Conduct Authority. As a result, this report is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the matters to which this report relates may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This report is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons.

Additional disclosure only for Canadian persons: This report is not, and under no circumstances is to be construed as, an advertisement or a public offering of the securities described herein in Canada or any province or territory thereof. Under no circumstances is this report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the registration requirement in the relevant province or territory of Canada in which such offer or sale is made. This report is not, and under no circumstances is it to be construed as, a prospectus or an offering memorandum. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. If you are located in Canada, this report has been made available to you based on your representation that you are an "accredited investor" as such term is defined in National Instrument 45-106 Prospectus Exemptions and a "permitted client" as such term is defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada nor should it be construed as being tailored to the needs of the recipient. Canadian recipients are advised that JM Financial Securities, Inc., JM Financial Institutional Securities Limited, their affiliates and authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research report or the information contained herein.