The Churn - Accelerated

Dr. Pawan Goenka

20 August 2019
## A Deep Slowdown

<table>
<thead>
<tr>
<th></th>
<th>F18</th>
<th>F19</th>
<th>F19</th>
<th>F19</th>
<th>F19</th>
<th>F20</th>
<th>M&amp;M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td>Growth</td>
</tr>
<tr>
<td>PV</td>
<td>7.9%</td>
<td>2.7%</td>
<td>19.9%</td>
<td>-3.6%</td>
<td>-0.8%</td>
<td>-2.0%</td>
<td>-21.6%</td>
</tr>
<tr>
<td>CV Total</td>
<td>20.0%</td>
<td>17.6%</td>
<td>51.6%</td>
<td>27.5%</td>
<td>6.7%</td>
<td>0.7%</td>
<td>-13.6%</td>
</tr>
<tr>
<td>3W</td>
<td>24.2%</td>
<td>10.3%</td>
<td>54.0%</td>
<td>24.6%</td>
<td>-6.8%</td>
<td>-8.7%</td>
<td>-7.4%</td>
</tr>
<tr>
<td>2W</td>
<td>14.8%</td>
<td>4.9%</td>
<td>15.9%</td>
<td>4.9%</td>
<td>8.4%</td>
<td>-9.0%</td>
<td>-12.9%</td>
</tr>
<tr>
<td>Tractors</td>
<td>21.7%</td>
<td>8.0%</td>
<td>23.9%</td>
<td>-2.6%</td>
<td>19.2%</td>
<td>-8.4%</td>
<td>-14.2%</td>
</tr>
</tbody>
</table>
### Reasons for the Slowdown

<table>
<thead>
<tr>
<th>General Sentiment</th>
<th>Financing</th>
<th>Transaction Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Economic slowdown</td>
<td>• Tight credit conditions arising from stress in NBFC sector, which has a significant share in wholesale, retail financing</td>
<td>• Commodity prices</td>
</tr>
<tr>
<td>• Poor cash flow in economy</td>
<td>• Rate cuts not passed on</td>
<td>• Regulatory impact on cost</td>
</tr>
<tr>
<td>• Govt. rural spending</td>
<td></td>
<td>• Road tax, registration, insurance, TCS</td>
</tr>
<tr>
<td>• Rural income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Weak Monsoon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sensex fall</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recommended Measures

1. Improve liquidity and cost of financing
2. Review of regulations: Impact Vs Cost
3. Restart rural spending
4. Roll back of increases in the road tax by states post GST
5. Waiver on TDS for vehicle purchases above Rs. 10 lac price
6. Temporary reduction in GST
7. Vehicle scrappage policy
PV Growth Q1F01 to Q1F20

PV Growth and Fiscal Stimulus

15 Months (5 Qtr.)
17 Months (5 Qtr.)
12 Months (4 Qtr.)
7 Months (2 Qtr.)

Excise Duty Cut for:
Dec-08 to Dec-09
Feb-14 to Dec-14

6% Reduction
4% Reduction

-23%
-15%
-12%
-18%
Mid-Term Industry Drivers

1. Rural and infra thrust will continue
2. Agri Industry will transform
3. EVs will happen
4. ICE is far from dead
5. Shared mobility will grow
6. Auto industry dynamics will change
7. Regulatory environment will get aggressive and surprises will happen
8. Protectionism will grow, globally
EVs will happen

- Why?
  - Clean air
  - Energy security

- How?
  - Advancement in battery technology
  - Localisation of EV components
  - Charging infrastructure
Demand Side Incentives and Enablers

- 5% GST on EVs
- FAME II incentives
- Income tax benefits for EV owners
- State level EV policies giving additional subsidy
- No permit requirement for EVs
- Road tax waiver
- Green number plates
- Electric buses sanctioned in different states
Focus on Make in India

- Phased Manufacturing Program (PMP)
- Support for manufacturing – land, utilities, tax rebates
Focus for charging infrastructure

- Government has invited bids for setting up charging infrastructure for 1,000 charging stations with 6,000 chargers
  - 70% funding for public chargers
- Government will fund part of the cost of setting up the above infrastructure using the Rs. 1,000 cr. earmarked for charging infrastructure as part of FAME II
Evolving EV landscape in India

- 4W EV application in fleet application
- 3W EV application profitable even today
- ICE and EV technologies need to co-exist
Shared Mobility will Grow

- Established players
  - OLA
  - Uber
  - Zoomcar

- Emerging players
  - SMART2
  - Quick Ride

- Fleet operators
  - Lithium

- Niche players
  - Glyd
Agri industry will transform

- Agri productivity
- Shorter crop cycles
- Risk mitigation
Indian Tractor Industry: ~8% growth (Mid to Long term)

- 7mn* tractor parc is only ~ 43% of total tractor requirement of ~16mn*

- Consistent improvement in Irrigation with increasing investments by GoI
  - High direct correlation between tractor sales and irrigation intensity

- Rapid increase in horticulture
  - Current mechanization in horticulture is 50% lower than paddy & wheat

- Shortage of farm labour & rising cost of labour

* Mahindra Estimate
India is Tractorized, not Mechanized

<table>
<thead>
<tr>
<th></th>
<th>India</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor Industry</td>
<td>USD 5.6 bn</td>
<td>USD 60 bn</td>
</tr>
<tr>
<td>Farm Machinery</td>
<td>USD 1 bn*</td>
<td>USD 100 bn</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Organised Sector
Farm Machinery from Across the Globe

- **CoE Rice Machinery**
  - Walk Behind Rice Transplanter
  - Self Propelled Rice Transplanter

- **CoE Tillage & Hay Machinery**
  - Silage Baler
  - Square Baler
  - Total Mix Ration – TMR Wagon

- **CoE Harvesting Machinery**
  - Harvesters*

- **CoE Spraying Machinery**
  - Range of Mist Sprayers

- **CoE Potato Value Chain**
  - Precision Potato Planter

- **CoE Horticulture Machinery**
  - Precision Horticulture Planter

*Not yet introduced in India*
Emerging Technologies in Agriculture

<table>
<thead>
<tr>
<th>Crop Sensing</th>
<th>GPS, GIS</th>
<th>Variable Rate Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Right Time + Right Location + Right Quantity

$240 Bn Global Addressable Market for Precision Farming
FaaS: Integrated solutions for the farmer

New Age
- Precision Farming
- AI / Machine Learning based, hyperlocal advisory

Conventional
- Agri Inputs
- Tractors & basic implements
- Soil Testing & Advisory

Maati

Precision Farming

Agri Inputs

Tractors & basic implements

Soil Testing & Advisory
The Churn is Accelerating

- Electric Vehicles
  - Right solution for intracity mobility
  - Need a phased plan for adoption
  - Will coexist with ICE

- Shared Mobility
  - Will create new value propositions in mobility space

- Agri industry
  - Tractor industry will grow at ~ 8% in mid term
  - Mechanization and Technology integrated solutions will create new value propositions