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# Quarterly Paper and Paperboard Special report

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Jul 2017



# Price Trends – Paper and Paperboards

|        | Ruby Macons (22 BF 150 GSM) (Basic rate per Kg) |            |            | Siddeshwari (22 BF 150 GSM) (Basic rate per Kg) |            |            |
|--------|---|------------|------------|---|------------|------------|
| Month  | Basic rate (INR per kg)                         | MoM Change | YoY Change | Basic rate (INR per kg)                         | MoM Change | YoY Change |
| Jan-17 | 29.2  | --         | -1.4       | 26.8  | --         | 0.9        |
| Feb-17 | 30.7  | 1.5        | 0.1        | 27.8  | 1.0        | 0.9        |
| Mar-17 | 35.2  | 4.5        | 3.1        | 31.8  | 4.0        | 3.9        |
| Apr-17 | 36.2  | 1.0        | 4.1        | 32.8  | 1.0        | 4.5        |
| May-17 | 35.2  | -1.0       | 4.6        | 31.8  | -1.0       | 4.0        |
| Jun-17 | 35.2  | 0.0        | 5.1        | 31.8  | 0.0        | 4.5        |

|        | Gayatri Shakti (250 GSM) (Basic rate per Kg) |            |            |
|--------|--|------------|------------|
| Month  | Basic rate (INR per kg)                      | MoM Change | YoY Change |
| Jan-17 | 39.6   | --         | 0.6        |
| Feb-17 | 40.6   | 1.0        | 1.6        |
| Mar-17 | 44.6   | 4.0        | 5.6        |
| Apr-17 | 45.6   | 1.0        | 5.5        |
| May-17 | 44.6   | -1.0       | 5.0        |
| Jun-17 | 44.6   | 0.0        | 5          |

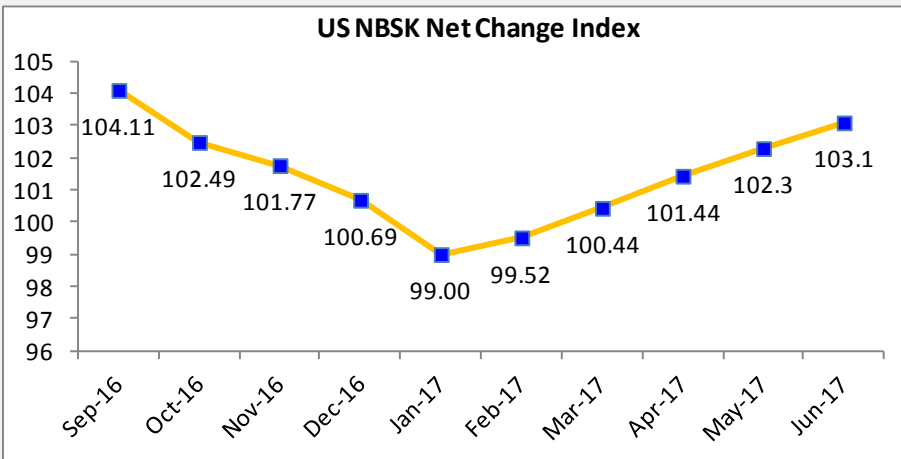
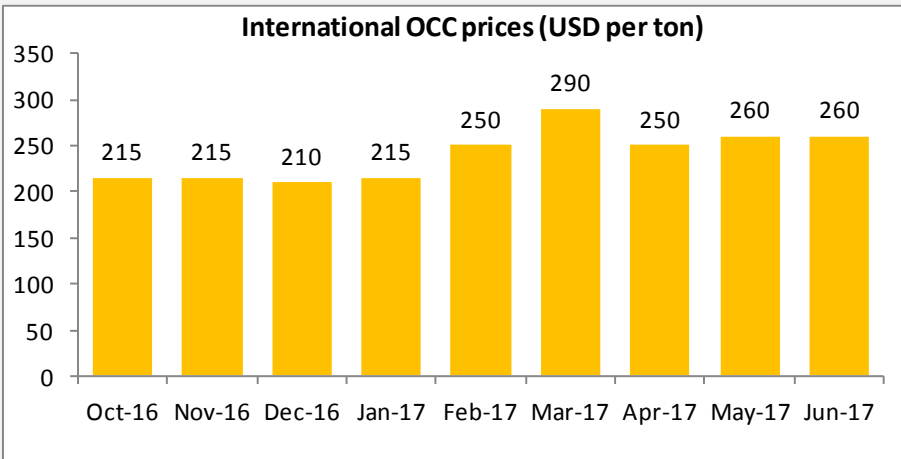
# Price trend review: Apr – Jun 2017

- Indian Paper and paperboard prices remained flat in the past quarter, at the same price levels compared to March 2017. Price were increased by INR 1000 during April, but later in May they were reduced by same amount owing to weak demand and decline in waste paper prices.
- Earlier, during the first quarter paper and paperboard prices were increased to the tune of INR 5000 – 6000 per ton owing to sharp rise in waste paper prices and lower supplies in the market.
- However, kraft and duplex mill owners lowering the production to keep supplies tight in the market has remained supportive to prices keeping the decline limited despite the weak demand in the market.
- At the raw material front, domestic recovered paper prices declined from INR 16000 per ton in April to INR 14000 per June tracking the mixed trend in international recovered paper prices.
- Further, sugar bagasse prices have declined from INR 6000 per dry ton to INR 5600 per dry ton amid lack of quality material availability in the market as the crushing season has come to end. Due to the most of procurement done during the first quarter demand for bagasse is also known to have declined in the market resulting in prices being adjusted lower.

# Global Pulp and paper price trends

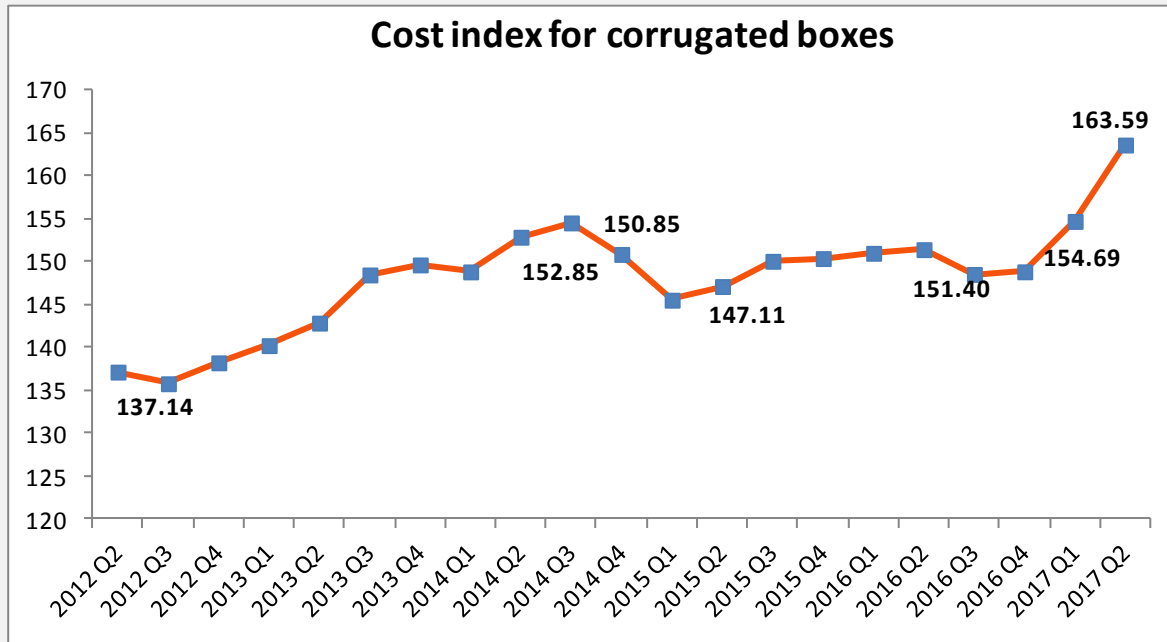
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- International recovered paper prices declined to the tune of USD 30-40 per ton starting from due to decline in Chinese demand. Earlier, OCC grade prices rose sharply USD 290 amid strong growth Chinese import demand in the first three months of the year.
- Lower supplies during upcoming spring maintenance season during May and June period in US and EU has led to producers increasing in hardwood and softwood pulp prices in the past three months.



# Cost index for corrugated boxes

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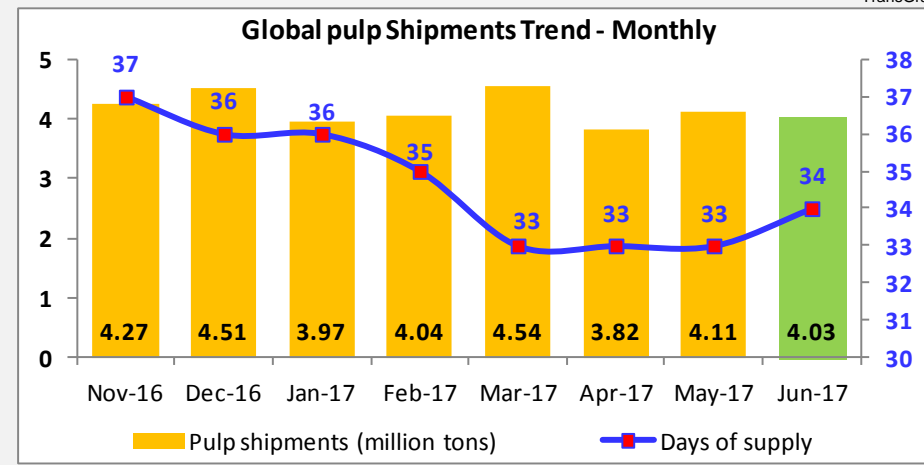
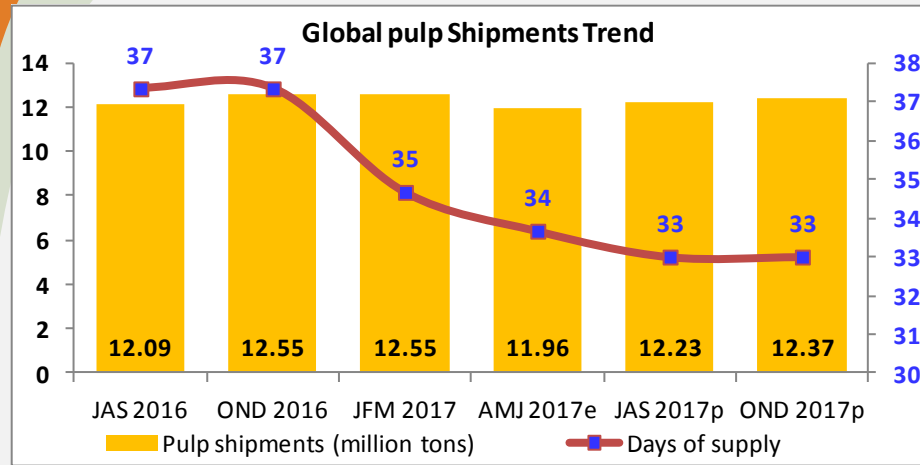
- Corrugated boxes costs have witnessed an increase to the tune of 5.7% in the previous quarter compared to Jan – Mar 2017 quarter due to high Kraft paper prices.
- CoDex is the cost index for the corrugated boxes include costs of paper, adhesives, printing, stitching, energy, transport, labour, interest and establishment costs and overheads

# Global pulp and paper industry

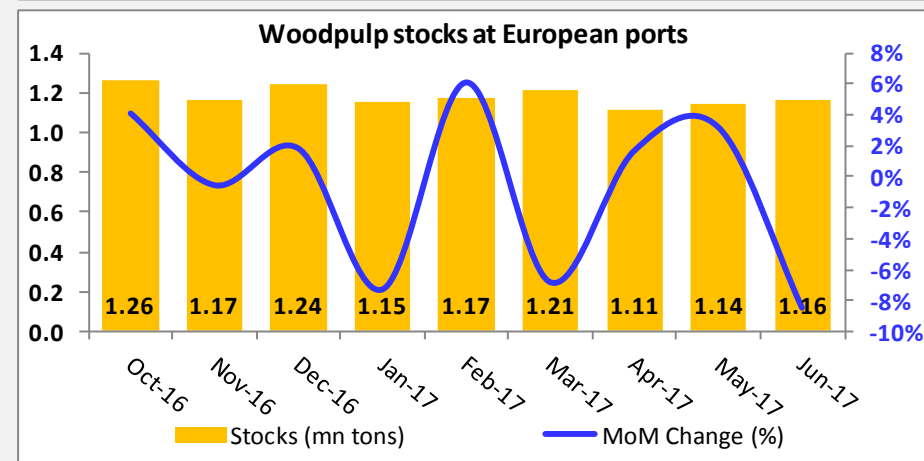


# Global pulp shipments

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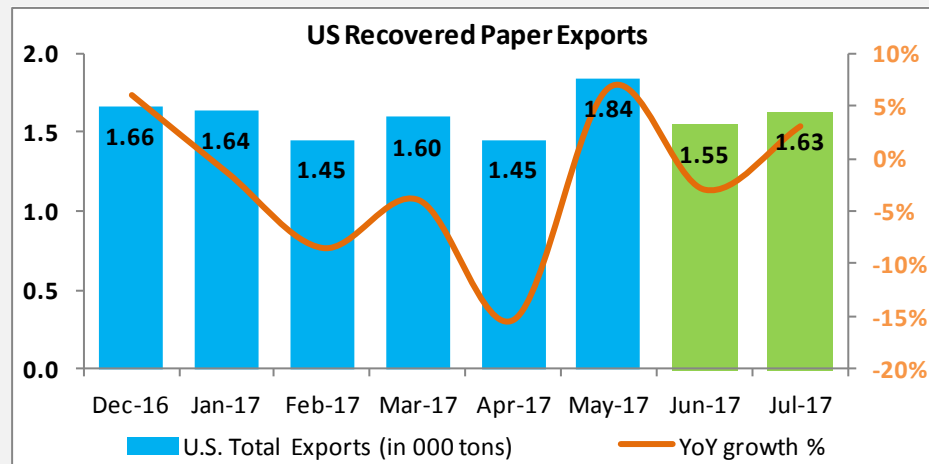
- Inventories at the European front have come down sharply from March levels start of the AMJ quarter and have remained below March levels.
- Moving forward, global pulp shipments are expected to increase at a moderate pace of 2.3% and 1.1% QoQ in JAS and OND 2017 amid improving demand in the Europe and China.





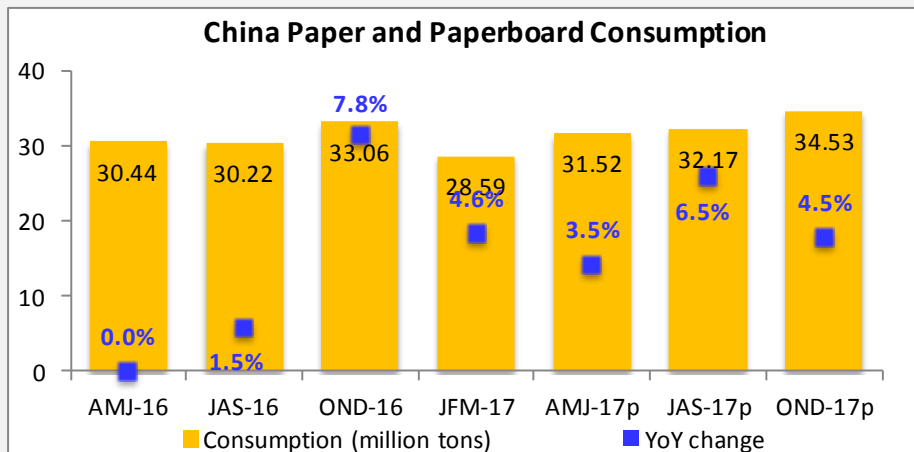
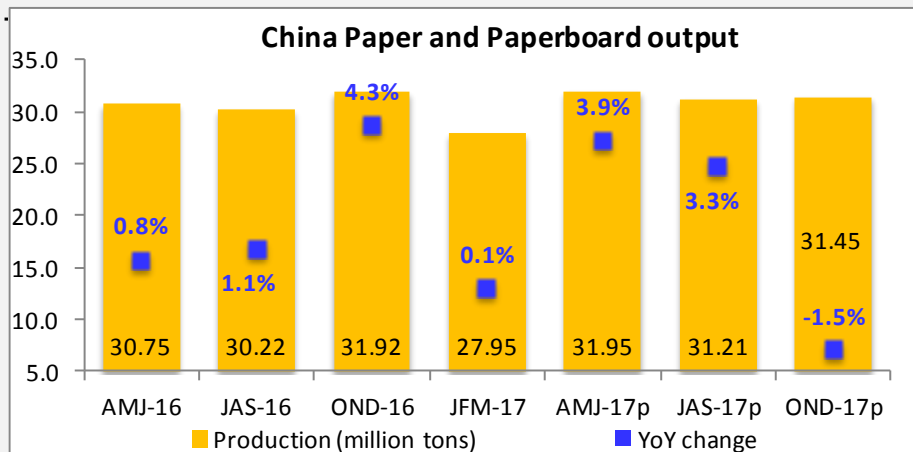
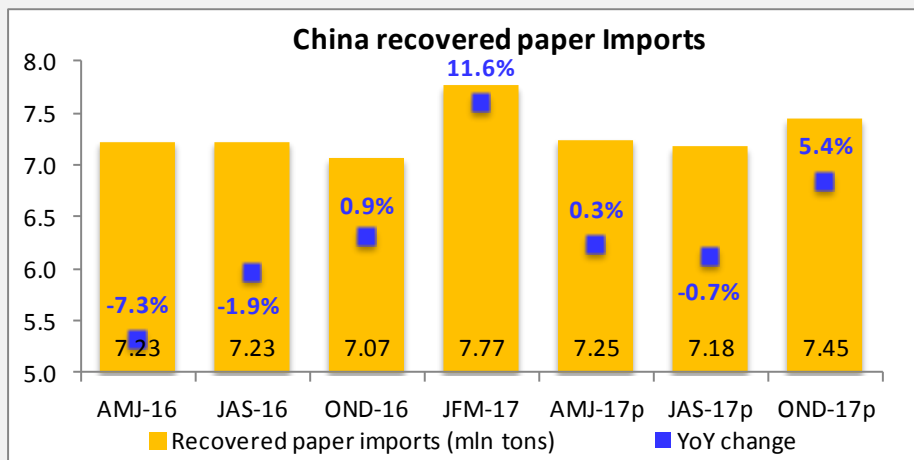
# US Recovered Paper exports overview

- US recovered paper exports during the five months of 2017 have declined by 4.4% to 7.98 million tons compared to 8.35 million tons during same period last year due to lower availability in the market during winter season and China's crackdown on recycled imports starting from mid-February.
- Supply tightness in the market due to lower availability of the recycled paper also contributed to the sharp rise in prices.
- However, US recovered paper imports are seen increasing in coming months amid higher availability and increased orders from China towards the end of the year.



# Chinese recovered paper imports likely to grow at a stronger rate in the medium term

- Chinese recovered paper imports have increased by 11.6% YoY during Jan – Mar period due to start of the restocking cycle after the destocking witnessed due to lower imports and higher paper and paperboard production during 2016.
- Going ahead, we expect the recovered paper imports in to China to remain almost flat for next quarter amid ample stocks after first quarter higher imports. Further, in OND 2017, recovered paper imports are expected to grow at a stronger rate supported by the higher demand and diminishing of stocks after the peak activity period in JAS 2017.



# Global Raw materials scenario

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| <b>Pulp</b>               | <b>2015</b> | <b>2016</b> | <b>2017p</b> |
|---------------------------|-------------|-------------|--------------|
| Production (mn tons)      | 187.77      | 189.28      | 193.08       |
| Imports (mn tons)         | 49.81       | 50.44       | 51.45        |
| Exports (mn tons)         | 51.37       | 51.68       | 52.28        |
| App Consumption (mn tons) | 186.21      | 188.04      | 192.25       |
| Production growth(%)      | 1.70        | 0.80        | 2.01         |
| Consumption growth(%)     | 1.95        | 0.98        | 2.24         |
| Prodn-Cons                | 1.56        | 1.24        | 0.83         |

| <b>Recovered paper</b>     | <b>2015</b> | <b>2016</b> | <b>2017p</b> |
|----------------------------|-------------|-------------|--------------|
| Production (mln tons)      | 215.25      | 218.76      | 221.29       |
| Imports (mn tons)          | 57.11       | 59.34       | 62.32        |
| Exports (mn tons)          | 59.07       | 61.31       | 63.90        |
| App Consumption (mln tons) | 213.29      | 217.59      | 219.71       |
| Production growth(%)       | 1.50        | 1.63        | 1.15         |
| Consumption growth(%)      | 2.12        | 2.02        | 0.97         |
| Prodn – Cons               | 1.96        | 1.17        | 1.58         |

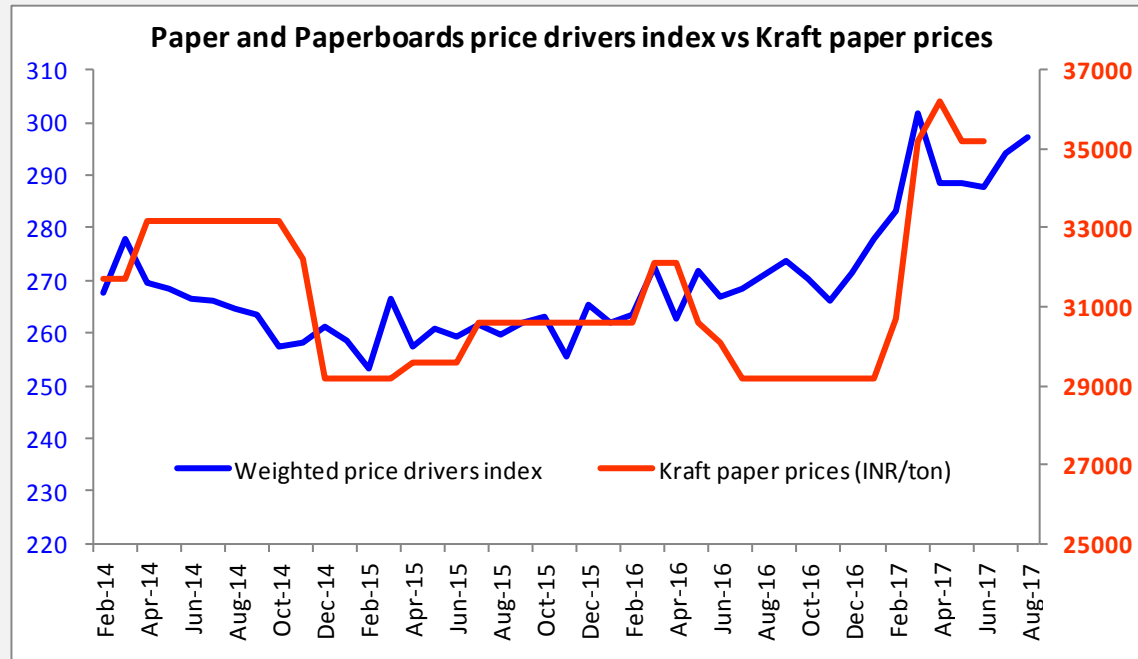
- Weak demand at the European and US front is expected to keep the overall import growth of pulp limited to 2% in the coming year.
- Higher production at the Brazilian front to aid in production increasing to the tune of 2% in 2017.
- Recovered paper consumption expected to witness marginal growth in 2017 amid lower consumption in Europe and sluggish growth in Asian region apart from China.
- Going ahead, seasonal pickup in industrial activity is expected to keep the consumption growth stable during second half of 2017

# Indian pulp and paper industry



# Price drivers index

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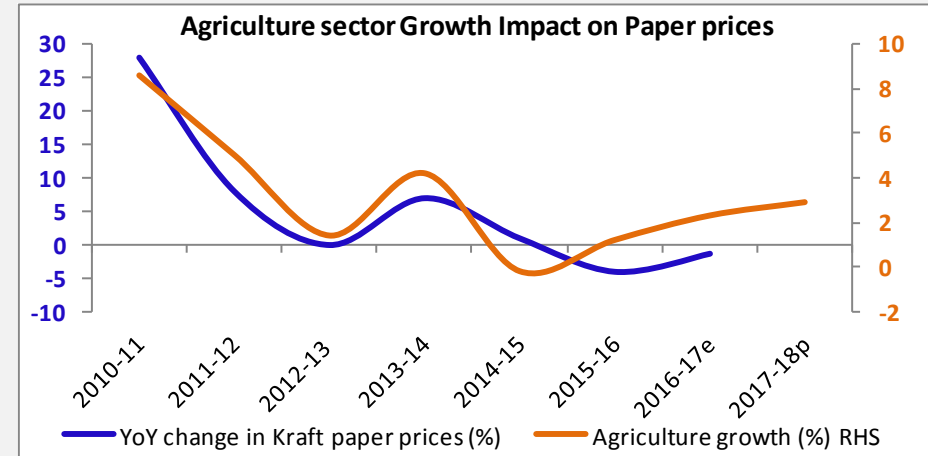
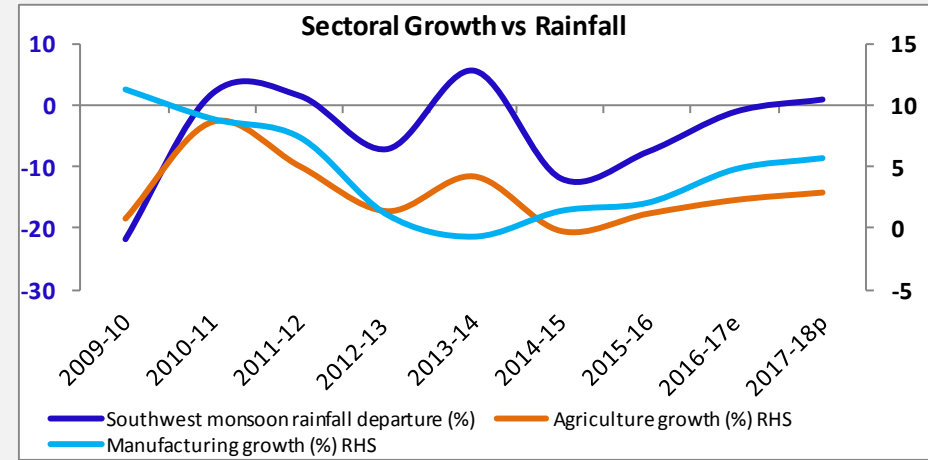
Factors considered for index in annexure

- Kraft paper are seen to be moving in the direction of sustained trend in the index with a lag effect.
- Going ahead, with key demand indicators expected to remain in the positive due to the higher demand ahead of festive season expected to drive the index higher in coming months.

# Impact of Rainfall on Paper prices

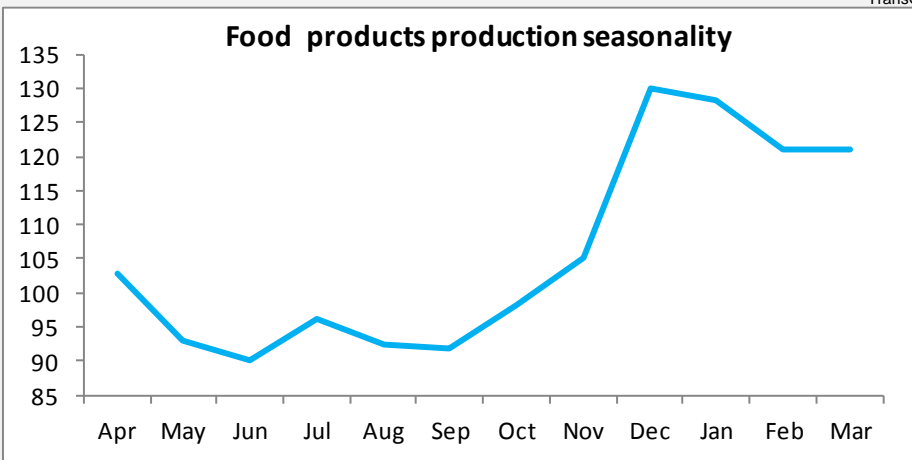
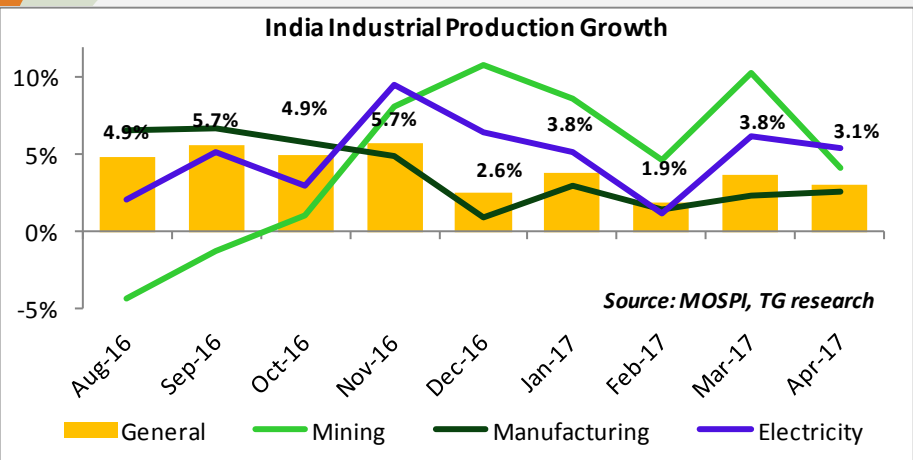
- Agriculture growth majorly dependent upon the Southwest monsoon.
- Growth in Agriculture sector seen augmenting the manufacturing sector growth due to the increased consumer spending.
- Better than normal rainfall is expected to boost the rural demand in coming months.

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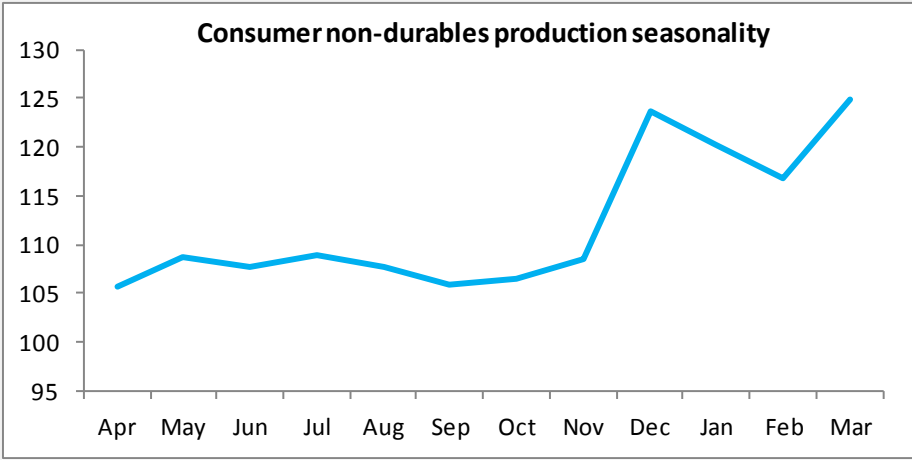


# Demand for packaging materials from FMCG sector is likely to higher ahead of the festive season

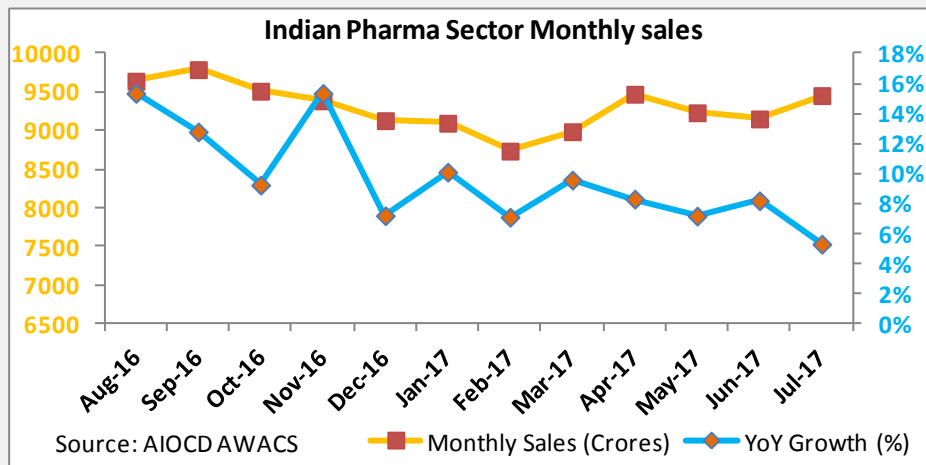
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- ❖ India's industrial production has witnessed moderate recovery in the past two months supported by the stable growth trend in manufacturing sector.
- ❖ Going ahead, seasonal higher production season for the food products and other consumer non-durables starting from Sep – Oct period (ahead of the festive season is expected to demand higher for paper packaging materials in the medium term. Further, higher economic activity and seasonal higher manufacturing growth period in JAS quarter is also expected to remain supportive.



# Indian Pharma Sector Prospects

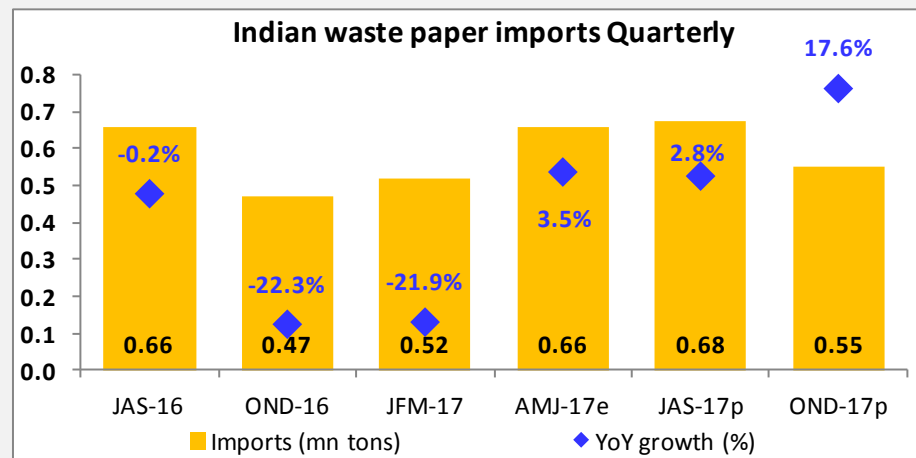


- ❖ Indian pharma sector sales growth is seen dipping in the past two months due to dealers and stockists apprehension about the tax credit returns with the implementation of GST. Earlier, the tax rate was about 9% while under GST it has been increased to 12%. AIOCD has reported that average inventory with distributors has come down to 17 days of supply by the end of June compared to 40 days of supply by the end of May.
- ❖ Going ahead, stock replenishment after the implementation of GST is expected to improve the sales gradually in the medium term. However, lower stock levels are expected to keep the sales on a sluggish note in the ease in the coming months.



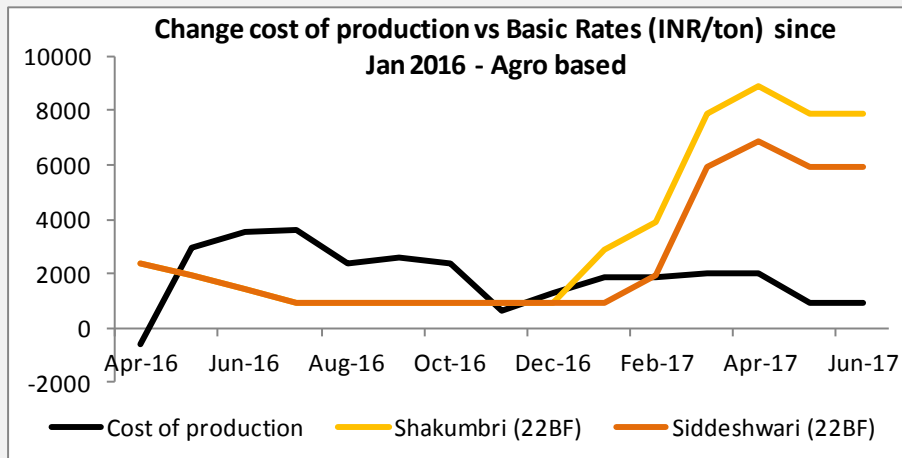
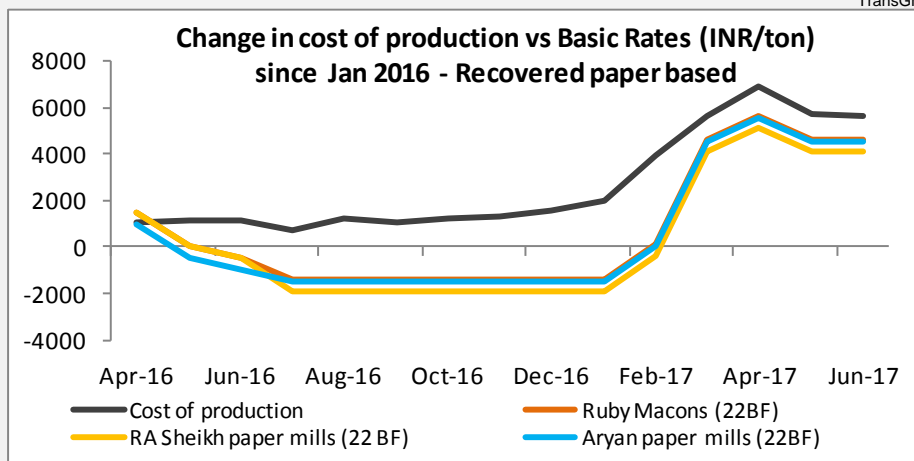
## Waste paper imports to improve amid currency appreciation

- Recovered paper imports in FY'17 are estimated to have declined by about 12% to 2.4 million tons compared to 2.72 million tons in FY'16 owing to currency pressure on the imports.
- Further, firm trend in international prices and weak demand for paper and paperboards also led to decline in imports
- Moving forward, with rupee expected to remain stable after dipping to near INR 66 levels against dollar, it is likely to ease pressure on millers.
- Further, weakness expected in recovered paper prices at the international front due to decline in pulp prices and moderate demand expected in China, it is expected result in higher imports.



# Margin Identifier indicating RCF based mills still under pressure

- Higher imported recovered prices resulted in tightness in the market due to lower imports during last year, thus added the stress on the paper and paperboard producers.
- However, due to the demand remaining dull during most of the second half of the year, millers attempts to increase the prices and pass on the price burden have failed.
- Hence, paper and paperboard producers came together and forced the price hikes to improve their profit margins by cutting supplies in the market.
- Going ahead, due to the lower profit margins during most of the last millers are expected to try and keep the prices higher in coming month.



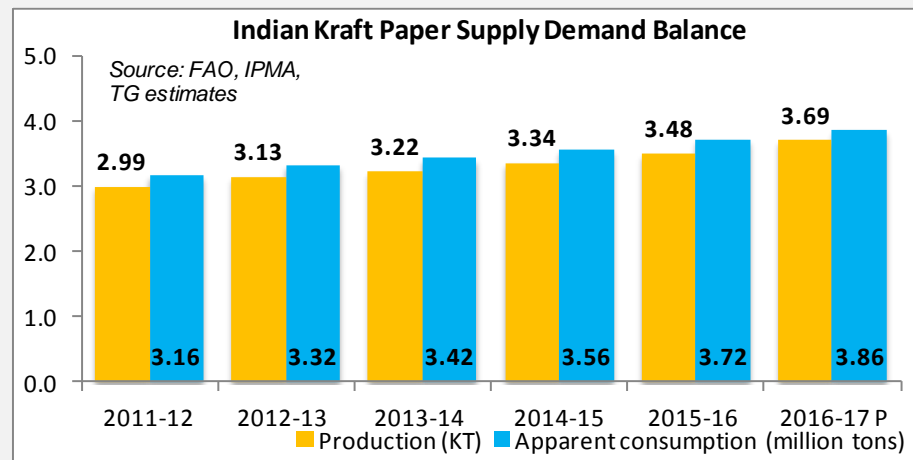
# GST tax impact on the Kraft paper production raw materials and Chemicals

| GST Impact on Kraft paper production raw materials and Chemicals |                       |            |               |            |
|--|-----------------------|------------|---------------|------------|
| Attribute  | Chemicals & Additives |            | Raw materials |            |
| Type   | RCF based             | Agro-based | RCF based     | Agro-based |
| Input per ton Kraft paper  | 0.095                 | 0.35       | 1.15          | 2.8        |
| Unit cost (INR per ton)  | 25743                 | 25743      | 20896         | 5600       |
| Cost per ton of paper production                                 | 2446                  | 9010       | 24030         | 15680      |
| Current duty (Excise)  | 12.50%                | 12.50%     | 12.50%        | 0.00%      |
| Current duty (VAT)   | 5.00%                 | 5.00%      | 5.00%         | 5.00%      |
| Krishi Kayan Cess  | 0.50%                 | 0.50%      | 0.50%         | 0.50%      |
| Swacha Bharat Cess   | 0.50%                 | 0.50%      | 0.50%         | 0.50%      |
| Net current duty   | 19.13%                | 19.13%     | 19.13%        | 6.00%      |
| GST  | 18.00%                | 18.00%     | 12.00%        | 5.00%      |
| Change in cost post GST (INR per ton)                            | -28                   | -101       | -1712         | -157       |

- Overall, due to the decline in tax rates under the GST regime cost burden, on the Kraft paper using recovered paper as the raw material, cost of production might be coming down by about INR 1.7 per Kg, while bagasse based manufacturers may not witness much change compared to earlier costs.

# Indian Kraft paper dynamics

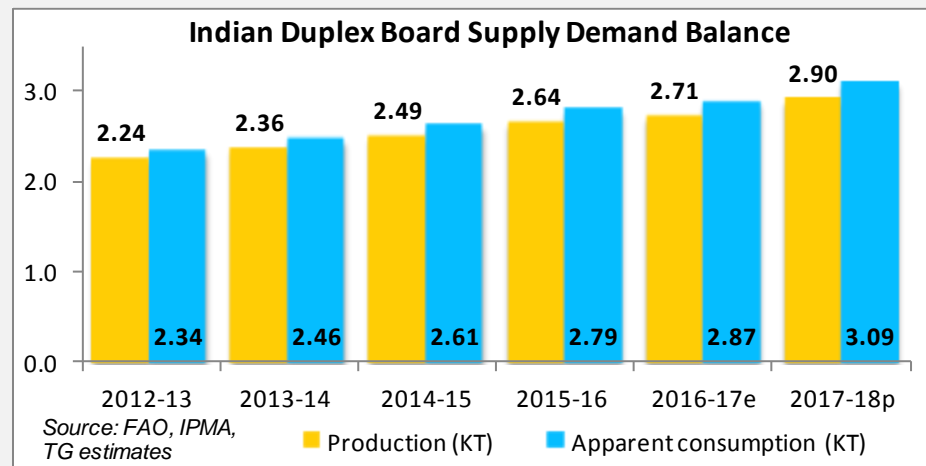
- Bright demand outlook with easing of liquidity problems after demonetization is expected keep markets tighter in FY 2017-18 and provide underlying support for prices.



| Attribute          | JAS-16 | OND-16 | JFM-17 | AMJ-17e | JAS-17p | OND-17p |
|--------------------|--------|--------|--------|---------|---------|---------|
| Production (KT)    | 904    | 890    | 904    | 943     | 977     | 962     |
| Imports (KT)       | 43.9   | 43.5   | 44.2   | 47.4    | 50.3    | 49.8    |
| Exports (KT)       | 4.90   | 4.60   | 4.84   | 4.92    | 5.27    | 5.89    |
| Consumption (KT)   | 949    | 941    | 955    | 971     | 1029    | 1020    |
| Supply-demand (KT) | -6.93  | -11.65 | -11.53 | 15.21   | -7.53   | -13.58  |

# Indian Duplex board dynamics

- Expectations of pent-up demand from FMCG sector amid lower sales during the demonetization period in the last two quarters is expected to aid in demand to outpace supplies in the coming year.



| Attribute          | JAS-16 | OND-16 | JFM-17 | AMJ-17e | JAS-17p | OND-17p |
|--------------------|--------|--------|--------|---------|---------|---------|
| Production (KT)    | 687    | 677    | 687    | 708     | 733     | 723     |
| Imports (KT)       | 39.95  | 39.6   | 40.2   | 45.6    | 48.3    | 47.9    |
| Exports (KT)       | 0.00   | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    |
| Consumption (KT)   | 729    | 722    | 733    | 739     | 784     | 777     |
| Supply-demand (KT) | -2.12  | -5.94  | -5.67  | 14.57   | -2.27   | -6.34   |

# Annual Balance Sheet- Indian Paper and Paperboard

TransGraph

| Attribute  | 2014-15 | 2015-16 | 2016-17e | 2017-18p |
|--|---------|---------|----------|----------|
| Capacity   | 13.18   | 14.14   | 15.12    | 15.60    |
| Operating Rate %   | 80.80   | 77.44   | 73.94    | 75.38    |
| Production   | 10.65   | 10.95   | 11.18    | 11.76    |
| Production growth %  | 4.82    | 2.82    | 2.10     | 5.19     |
| Imports  | 1.350   | 1.216   | 1.390    | 1.72     |
| Exports  | 0.95    | 0.75    | 0.78     | 0.83     |
| Consumption  | 11.05   | 11.42   | 11.79    | 12.66    |
| Consumption growth %   | 5.04    | 3.31    | 3.28     | 7.34     |
| Source: CPPRI, IPMA, CRISIL, TG Estimates; All units in million tons |         |         |          |          |

# Price outlook summary

TransGraph

| Region   | JAS 2017 | OND 2017 | JFM 2018 |
|--|----------|----------|----------|
| Kraft paper West India   | +2000    | 0        | +1000    |
| Kraft paper North India  | +2000    | 0        | +1000    |
| Duplex Board West India  | +2000    | 0        | +1000    |
| Duplex board North India   | +2000    | 0        | +1000    |
| <i>(Price forecast with respect to current price levels INR per ton)</i> |          |          |          |

- **Inline with the holistic view, it is recommended to enter into long-term buying (3-5 month requirements) at the current price levels or negotiate for a one rupee downward revision that is possible in the immediate front, based on recent market inputs of a downside revision consideration in a weeks time.**

# Facts and figures – Prices

TransGraph

## Kraft paper prices (Ex-mill Basic rates in INR per ton)

### North India

| Paper mill               | Raw material    | GSM | BF | Region | Apr'17 | May'17 | Jun'17 |
|--------------------------|-----------------|-----|----|--------|--------|--------|--------|
| Devpriya Paper Products  | Recovered paper | 220 | 24 | North  | 35100  | 34100  | 34100  |
| Devpriya Paper Products  | Recovered paper | 180 | 22 | North  | 33100  | 32100  | 32100  |
| Ruchira Papers           | Recovered paper | 150 | 22 | North  | 35600  | 34600  | 34600  |
| Shakumbri Paper Products | Agro based      | 150 | 22 | North  | 35200  | 34200  | 34200  |
| Shakumbri Paper Products | Agro based      | 120 | 25 | North  | 37200  | 36200  | 36200  |
| Siddeshwari industries   | Agro based      | 150 | 22 | North  | 32800  | 31800  | 31800  |
| Siddeshwari industries   | Agro based      | 220 | 24 | North  | 35300  | 34300  | 34300  |



# Facts and figures – Prices

| Kraft paper prices (Ex-mill Basic rates in INR per ton) |                 |     |    |        |        |        |        |
|---|-----------------|-----|----|--------|--------|--------|--------|
| West India  |                 |     |    |        |        |        |        |
| Paper mill  | Raw material    | GSM | BF | Region | Apr'17 | May'17 | Jun'17 |
| Aryan Paper Mills                                       | Recovered paper | 150 | 22 | West   | 35800  | 34800  | 34800  |
| Malu paper mills  | Recovered paper | 180 | 22 | West   | 33800  | 32800  | 32800  |
| Ruby Macons   | Recovered paper | 150 | 22 | West   | 36200  | 35200  | 35200  |
| Ruby Macons   | Recovered paper | 220 | 24 | West   | 38200  | 37200  | 37200  |
| Shree Ajith Paper mills                                 | Recovered paper | 150 | 24 | West   | 35000  | 34000  | 34000  |
| Shree Ajith Paper mills (High RCT)                      | Recovered paper | 150 | 24 | West   | 38000  | 37000  | 37000  |
| Shree Gajannan paper and boards                         | Recovered paper | 150 | 22 | West   | 35500  | 34500  | 34500  |

# Facts and figures – Prices

## Kraft paper prices (Ex-mill Basic rates in INR per ton)

### West India

| Paper mill                                 | Raw material    | GSM | BF | Region | Apr'17 | May'17 | Jun'17 |
|--|-----------------|-----|----|--------|--------|--------|--------|
| Shree Gajannan paper and boards (High RCT) | Recovered paper | 150 | 22 | West   | 37000  | 36000  | 36000  |
| Shah paper mills                           | Recovered paper | 150 | 24 | West   | 33500  | 32500  | 32500  |
| Shah paper mills (High RCT)                | Recovered paper | 150 | 24 | West   | 35000  | 34000  | 34000  |
| Best paper mills                           | Recovered paper | 150 | 24 | West   | 33500  | 32500  | 32500  |
| Best paper mills (High RCT)                | Recovered paper | 150 | 24 | West   | 35000  | 34000  | 34000  |
| RA sheikh paper mills                      | Recovered paper | 150 | 22 | West   | 33000  | 32000  | 32000  |
| RA sheikh paper mills (High RCT)           | Recovered paper | 150 | 22 | West   | 35000  | 34000  | 34000  |
| Kwality Paper mills                        | Recovered paper | 150 | 18 | West   | 30500  | 29500  | 29500  |

# Facts and figures – Prices

TransGraph

| Duplex Board (Ex-mill Basic rates in INR per ton) |                                 |        |        |        |
|---|---------------------------------|--------|--------|--------|
| Paper mill  | Specification                   | Apr'17 | May'17 | Jun'17 |
| Gayatri Shakti                                    | Grey back duplex board, 260 GSM | 45600  | 44600  | 44600  |
| Gayatri Shakti                                    | Grey back duplex board, 300 GSM | 44600  | 43600  | 43600  |
| Gayatri Shakti                                    | coated white back , 260 GSM     | 49000  | 48000  | 48000  |
| Gayatri Shakti                                    | coated white back , 300 GSM     | 46500  | 45500  | 45500  |
| Deevya Shakti                                     | HWC duplex board, 250 GSM       | 44050  | 43050  | 43050  |
| Deevya Shakti                                     | HWC duplex board, 320 GSM       | 41970  | 40970  | 40970  |
| Three M papers                                    | HWC white back, 250 GSM         | 46250  | 45250  | 45250  |
| Three M papers                                    | HWC white back, 300 GSM         | 43750  | 42750  | 42750  |
| Balkrishna industries                             | Grey back DB 300 GSM            | 42500  | 41500  | 41500  |
| Balkrishna industries                             | White back DB 285 GSM           | 45500  | 44500  | 44500  |



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# Annexure



# Paper and Paperboard Price Driver Index

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| Factors taken in to consideration for the price drivers index and their respective correlations with prices |      |
|---|------|
| USDINR  | -65% |
| IP growth   | 34%  |
| Consumer durable  | 6%   |
| Consumer non durable  | 30%  |
| WPI   | 72%  |
| P&PB production   | 65%  |
| Indian WP   | 84%  |
| International OCC   | -18% |
| Electricity   | 56%  |

## Methodology

- Correlation of the each product with above is ascertained.
- Indexed form of above mentioned factors and standardizing into one unique index.