

Paper and Paper Products – Investment Cycle Turns Positive

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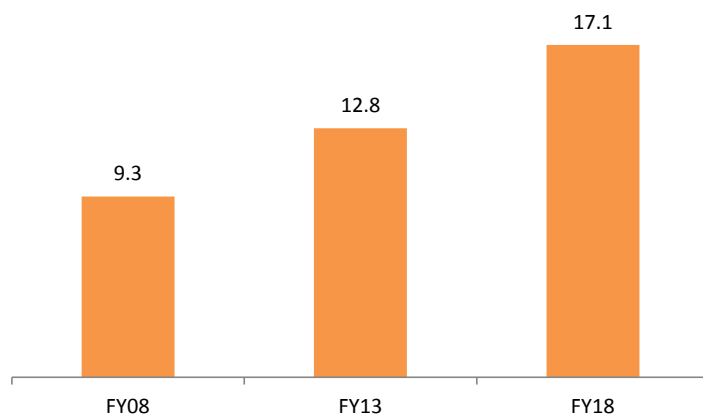
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Overview

The Indian paper and paper industry has continued to witness steady growth and in FY18 and the domestic demand grew from 9.3 million tonnes in FY08 to 17.1 million tonnes in FY18 at a CAGR of 6.3%.

Growing e-commerce space and increasing presence of the FMCG and packaged food industries contributed to the growth in the sector. The demand drivers also include 1) high global pulp prices, 2) rising income levels, 3) growing per capita expenditure, 4) rapid urbanisation and 5) a larger proportion of earning population which is expected to lead consumption. The low domestic per capita paper consumption also provides potential to the industry in the long-term.

Chart 1: Domestic Paper and Paper Products Demand (in mn tonnes)



Source: Industry, IPMA

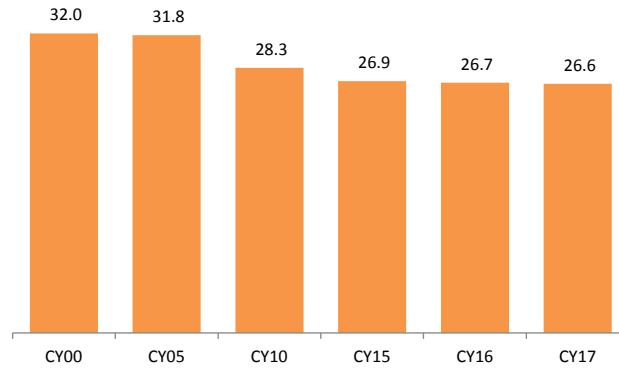
Additionally, the Chinese Government restricting the import of significant levels of recovered (waste) paper due to environmental concerns has resulted in a decline in global recovered paper prices. This has benefitted domestic manufacturers who use recovered paper /pulp as a key raw material.

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The above growth witnessed in India's demand for paper and paperboard when juxtaposed against the decline in the Japanese demand for paper and paperboard, highlights both the declining consumption in industrialised nations as well the growth opportunity available in India. Even as the Japanese demand fell by 1% over the last 17 years, the Japanese demand still remains more than one and a half

times more than demand in India. Additionally given the population disparities of the respective countries, per capita demand in Japan (203 kg in 2016 as per FAO) also remains considerably elevated when compared to the per capita demand in India (13 kg in 2016 as per FAO), further highlighting the potential demand in India

Chart 2: Japan: Paper and Paperboard Domestic Demand (in mn tonnes)

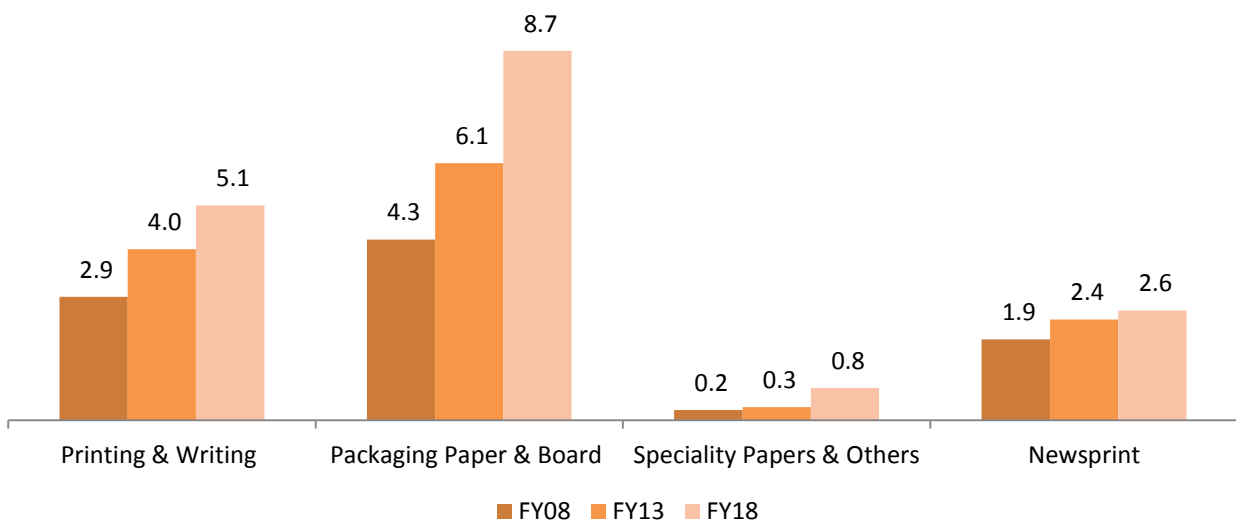


Source: Japan Paper Association

Industry Segmentation

The industry is classified into four segments, Printing & Writing (P&W), Packaging Paper & Board, Specialty Papers & Others, and Newsprint. Printing & Writing (P&W) share has remained stable at around 30%, while Packaging Paper & Board share has increased from 46% in FY08 to 51% in FY18.

Chart 3: Segment Breakdown and Movement (in mn tonnes)



Source: Industry, IPMA

- Packaging paper & board segment accounting for 51% of the total paper demand in India and is the largest segment in the industry. It grew at a CAGR of 7.4% from 4.3 mn tonnes during FY08 to 8.7 mn tonnes in FY18. Rising urbanization, increasing penetration of organized retail, higher growth in FMCG, pharmaceutical and processed food industries etc. are the growth drivers of the segment.
- The Printing and Writing (P&W) paper segment forms 30% of domestic paper market. Domestic demand for P&W paper was 5.1 mn tonnes in FY18. Rising literacy rate and universalization of education through legislative steps like Right to Education, governmental measures like Sarva Shiksha Abhiyan and mid-day meal schemes, increased spending on education are the main reasons for growth in the demand for Printing and Writing Paper.
- The Newsprint segment comprises 15% of the Indian Paper and paper products Industry and grew at a CAGR of 2.6% during FY08-18 to 2.6 mn tonnes, on the back of improving literacy and increasing circulation of vernacular dailies. Imports account for a substantial portion of the consumption and the prospect of newsprint segment primarily depends on its consumption by print media industry.
- Specialty paper & others is the smallest segment, accounting for only ~4% of the industry. This segment especially tissue papers is the fastest growing segment, albeit the on a much smaller base.

Capacity Expansion

The global paper and paper products industry had been witnessing flat demand conditions due to

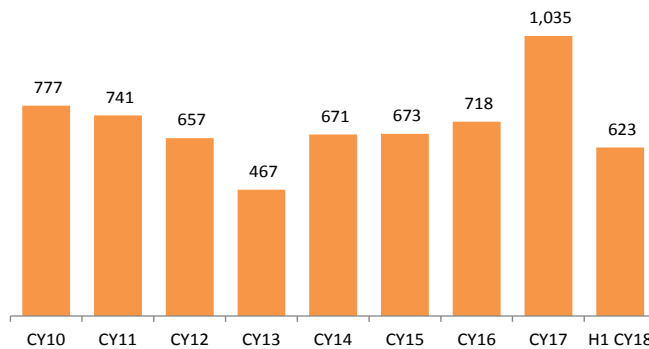
- 1) Rising digital penetration and
- 2) Weakness in the global economy

The global investment cycle has turned due to

- 1) Mill closures and
- 2) Restrictions by Chinese government on imports of low grade recovered paper

An improvement in global industry demand can be extrapolated from the improvement in order flow at a leading global paper equipment manufacturer.

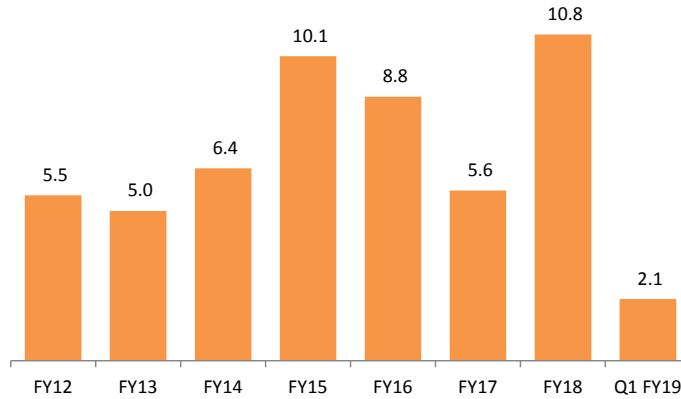
Chart 4: Valmet - Orders Received (Eur mn)



Source: Valmet

The above pattern has also been witnessed in India with a significant increase in the domestic consumption of paper making machinery as evinced by the chart below.

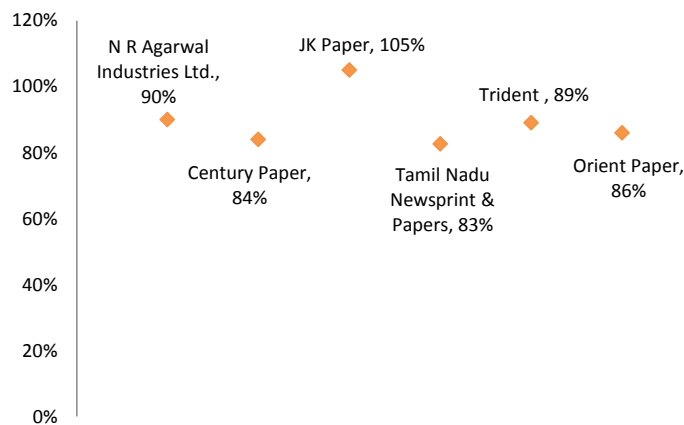
Chart 5: Domestic Consumption of Paper Making Machinery (Rs bn)



Source: CMIE

With the domestic industry growing steadily and at a significantly higher rate compared to the global growth rate, the majority of domestic paper mills, despite high raw material prices, are currently operating at approximately 85% to 90% capacity utilisation level, while the larger companies are operating close to or more than 100% capacity utilisation. Consequently, domestic paper mills have announced capacity expansion plans.

Chart 6: Capacity Utilisation of select companies (FY18)



Source: Company Annual Reports

As can be seen in the table 1 below, significant investments have been lined up for expansion in production capacity. A majority of these projects are in the paperboard segment reflecting the increased demand witnessed as well as the higher growth rate anticipated in the segment. Quite a few projects have just been announced and a majority of these are scheduled for completion post April 2020. Genus Paper & Boards Ltd. has signed non-binding MoUs with the governments

of Maharashtra and Uttar Pradesh to set up a Kraft paper manufacturing facility and expansion of current facility, respectively, at a total cost of approx. Rs 1,650 cr.

Table 1: List of Announced / Under Implementation Projects

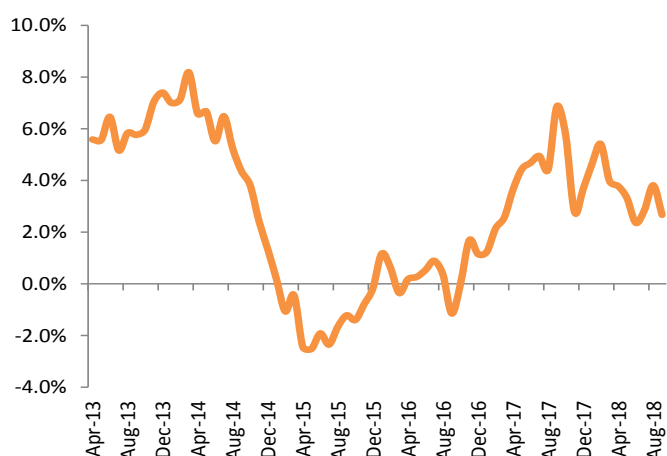
Company Name	Cost (Rs.bn)
Tamil Nadu Newsprint & Papers Ltd.	25.2
Genus Paper & Boards Ltd.	16.5
J K Paper Ltd.	14.5
West Coast Paper Mills Ltd.	12.5
Ruchira Papers Ltd.	8.0
Emami Paper Mills Ltd.	6.5
Seshasayee Paper & Boards Ltd.	4.8
Star Paper Mills Ltd.	3.7
Paswara Papers Ltd.	3.5
Kuantum Papers Ltd.	3.4
Others	7.0
Total	105.6

Source: CMIE

However, it should be noted that the paper and paper products industry is generally characterized by cyclicity of supply on account of long gestation period in capacity addition, bunching up of capacity additions and lead time in raw material procurement. Additionally some capacity in the industry is currently non-operational and if restarted could have an impact on the supply-demand and competitive intensity of the industry. Any production ramp-up could also negatively affect prices impacting margins.

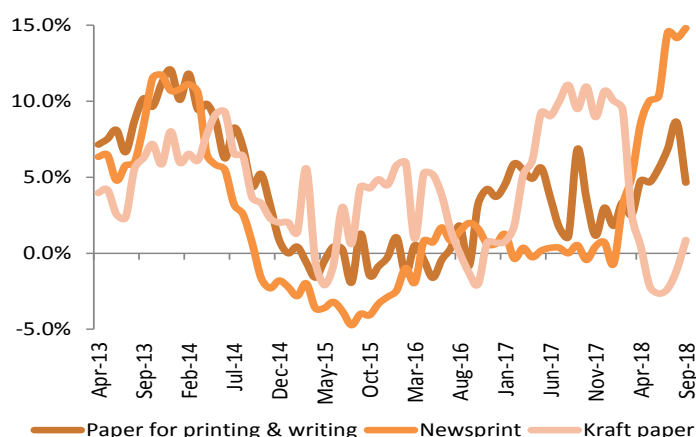
Prices

Chart 7: WPI: Manufacture of Paper and Paper Products



Source: Office of the Economic Advisor

Chart 8: WPI: Select segments of Paper and Paper Products

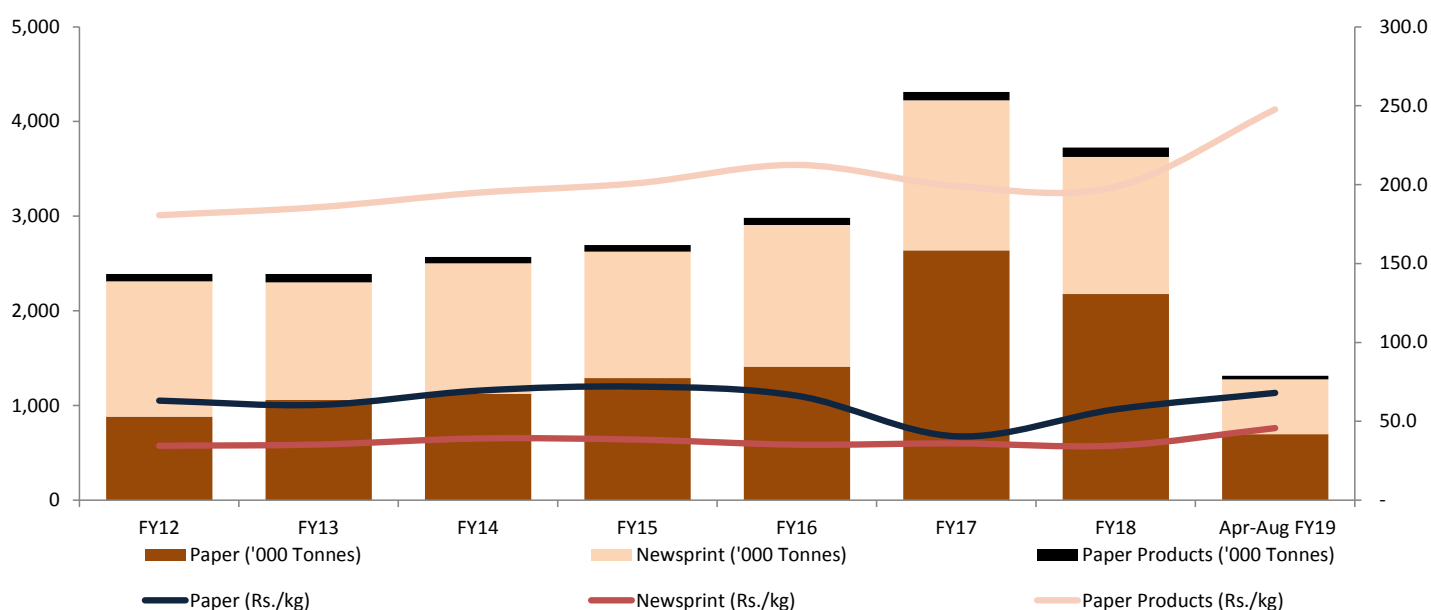


Source: Office of the Economic Advisor

The index for 'Manufacture of Paper and Paper Products' group rose by 2.7% y-o-y in September 2018 due to higher price of tissue paper (18.3%), map litho paper (7.7%), newsprint (14.8%) and hard board (5.9%). However, the increase was capped due to decline in the price of card board (6.6%), corrugated sheet box (5.2%), base paper (2.8%) and paper bag including craft paper bag (2.6%). Tight markets, low Chinese pulp inventories, lack of supply coming to the market, and healthy demand were the primary factors that provided an upside to the prices.

Trade Trends

Chart 9: Movement in Imports (Volume and value per kg)

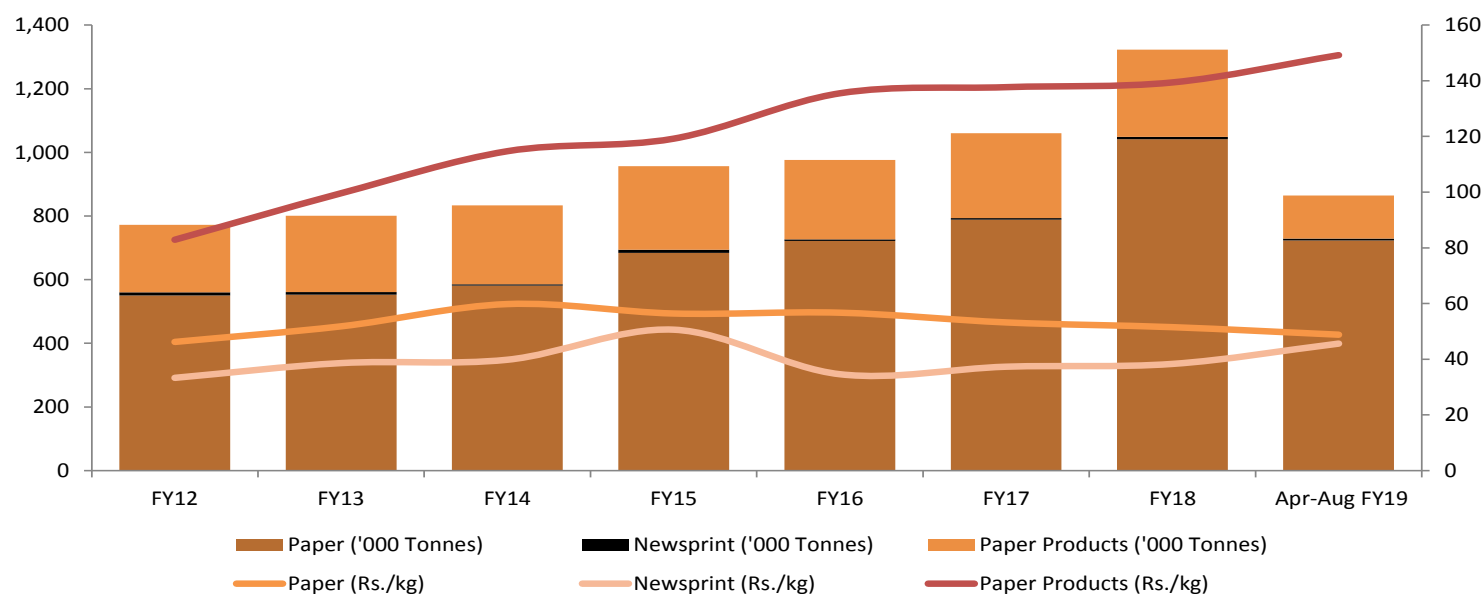


Source: CMIE

Imports of paper and paper products have displayed an increasing trend beginning from FY05 till FY17 and subsequently declined in FY18. The growth in overall imports has been 13.7% for the FY05-FY17 period and 11.3% for the FY05-FY18 period. Paper imports increased by 23.7% and 19.9%, respectively, for these periods, newsprint growth (7% and 5.7%) as well as paper products growth (14.5% and 14.3%) have increased at similar levels. Even as paper products imports increased in FY18, due to their significantly larger share, the decline in paper and newsprint imports resulted in an overall decline. YTD FY19 imports have also been subdued and the decline is expected to sustain in overall FY19. The imports had witnessed a substantial increase till FY17, primarily due to 1) higher local cost of wood/pulp, 2) FTAs which made importing raw material cost effective from certain countries, and 3) significant output from China. However, imports reduced in FY18 as the increase in international pulp price vis a vis the domestic price reduced the economics of imports. Despite the fall, imports continue to account for more than 20% of the overall annual demand, while accounting for more than 55% of newsprint demand.

China continues to remain the largest nation for paper imports as it accounted for a 26% share (by volume) of paper imports in FY18, while Russia accounted for a 35% share (by volume) of newsprint imports in FY18. This dominance has continued in YTD FY19 with China accounting for a 19% share of paper imports and Russia accounting for 26% of newsprint imports. Other major countries which export to India include Canada, South Korea, US and Indonesia.

Chart 10: Movement in Exports (Volume and value per kg)



Source: CMIE

Over the period, overall exports have grown at a CAGR of 10.1% for the FY05 – FY18 period, while paper exports have grown at a CAGR of 10.6% and paper products have grown at a CAGR of 9.1% for the same period, while newsprint exports have declined by 2.2%. In FY18, UAE (17% share of paper exports) and Sri Lanka (13% share of paper exports) accounted for a majority of paper exports. However, in YTD FY19, China (20% share of paper exports) and UAE (13% share of paper exports) are the major countries where paper has been exported, with Sri Lanka spilling to third place with a 10% share. In FY18, Nepal (35% share of newsprint exports) and Sri Lanka (23% share of newsprint exports) accounted for a majority of newsprint exports. However, in YTD FY19, Kenya (18% share of newsprint exports) and Nepal (14% share of newsprint exports) are the major countries where newsprint has been exported.

Further as evinced by the table below, India has generally imported high value paper and paper products, while exporting comparatively low value paper and paper products.

Table 2: Comparison of import value per kg vs. export value per kg

Rs per Kg	Paper		Paper Products	
	Imports	Exports	Imports	Exports
FY05	52.8	32.4	194.5	67.9
FY10	61.7	41.9	176.6	71.3
FY15	72.0	56.4	200.9	119.2
FY16	66.2	56.7	212.5	135.5
FY17	40.5	53.2	199.1	137.7
FY18	57.6	51.5	198.7	139.4
Apr-Aug FY19	68.0	48.8	247.7	149.2

Source: CMIE

Operating costs

Table 3: Movement in Key Costs (as a percentage of Revenue)

	FY05	FY09	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Raw Material	36%	37%	39%	41%	46%	49%	46%	46%	46%
Power & Fuel	14%	15%	17%	15%	14%	13%	12%	11%	12%
Employee	8%	6%	7%	7%	7%	8%	8%	8%	8%
Depreciation	6%	5%	6%	6%	6%	5%	5%	5%	5%
Interest	5%	5%	5%	5%	5%	6%	5%	6%	6%

Note: Dataset comprises 24 companies in the paper and paper products industry

Source: Ace Equity

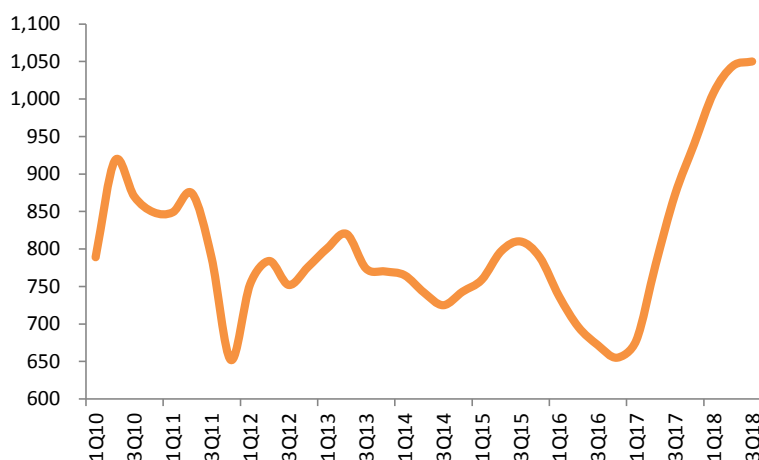
The above table highlights the movement in key costs.

- Raw material cost (as a percentage of revenue) has generally been on an uptrend rising from 36% in FY05 to 49% in FY15 and then falling to 46%, FY16 onwards. This could indicate 1) rising level of raw material prices which have not been passed on proportionately to the end consumer, 2)
- Power & fuel costs (as a percentage of revenue) stood at 14% in FY05, then were lower at 13% for the subsequent two years and then increased to reach 17% in FY12. However, subsequently, the costs have fallen even as production increased due to 1) usage of energy efficient machines, and 2) favorable pricing of coal (this increased in FY18 thereby increasing costs).
- Employee costs have remained stable at 7-8% of revenue over the period even as the production has increased indicating 1) increase in employee efficiency and 2) increased use of mechanization in production, while depreciation has witnessed a marginal decline from 6% of revenue to 5% of revenue
- Interest costs (as a percentage of revenue) declined from 5% to 3% early in the period and then increased steadily to 6% in FY15 and have remained range bound.

Raw Material Scenario

Pulp Prices

Chart 11: Average FOEX BHKP Europe (\$/t)¹



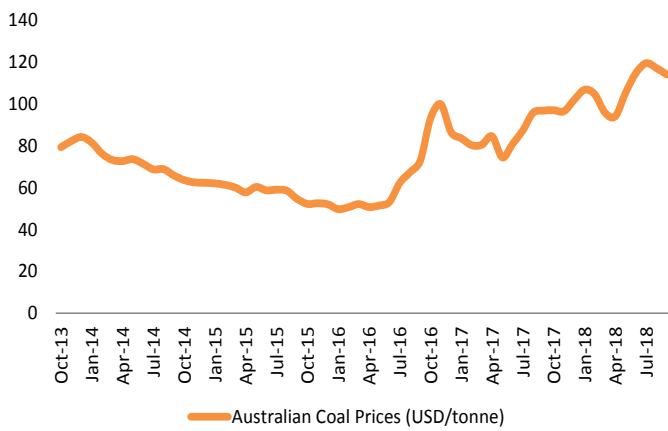
Source: Fibria Financial Model

¹ The price for Bleached Hardwood Kraft Pulp (BHKP) market pulp (eucalyptus or birch) in USD

For the nine months of CY18, international pulp prices remained elevated due to factors such as 1) continued steady demand, 2) producer downtime, 3) low inventories and 4) lower recovered fibre availability in China due to import restrictions. At the end of the September 30, 2018, list prices in Europe, China and North America were approximately \$1,230, \$885 and \$1,390 per ADMT, respectively. *The global pulp prices are likely to remain firm over the medium-term* due to 1) improved demand, 2) environmental restrictions by Chinese government on imports of low grade recovered paper could increase the demand for wood-pulp, and 3) limited pulp capacity expansion coming online over the next couple of years, despite the capacity expansion announcements.

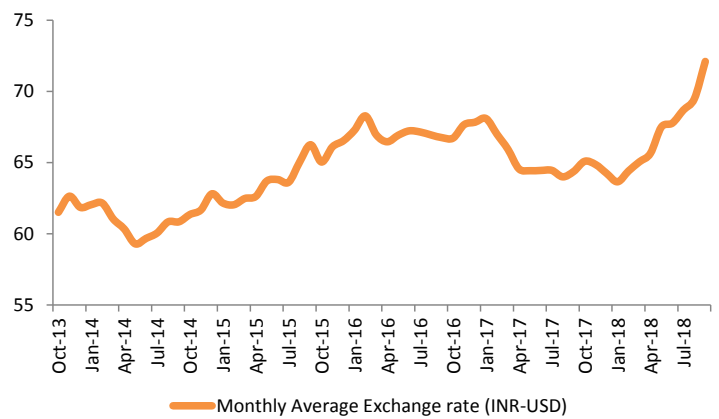
Coal Prices

Chart 12: Imported Coal Price Movement



Source: CMIE

Chart 13: Monthly Average Exchange rate (INR-USD)



Source: www.x-rates.com

The general decline in imported coal prices coupled with energy saving efforts of the paper manufacturers reduced the power & fuel cost of the industry in earlier years. The decline in the imported coal prices was partly off-set by the weakening rupee. In FY18, international coal prices increased as well the currency depreciated against the dollar, which has increased costs marginally.

Impact of rising crude oil prices is being felt in the following manner; 1) rise in the price of crude oil based chemicals used in the production process, 2) rise in fuel prices such as diesel, furnace oil, pet coke, etc., and 3) cascading impact on other costs such as logistics, as fuel/ other chemicals become expensive and this increase is passed on as an increase in prices.

Some of the immediate major areas of concern for the domestic paper and paper products industry include 1) Scarcity of pulpwood, 2) rising pulpwood prices, 3) poor wastepaper collection and recovery mechanism in the country, 4) rising imports under Free Trade Agreements (FTAs) and 5) outdated technology especially in the smaller mills, while a longer term challenge includes a shift to digital, which could potentially reduce paper consumption. The industry has been attempting to mitigate these challenges through rising social forestry plantation, increasing wastepaper collection mechanism and implementing effective cost control measures.

Recent Developments

Sirpur Paper Mill (SPM) acquisition: JK Paper acquired Telangana-based SPM for a consideration of INR 371 crore via the NCLT process. This acquisition costs comprises of an upfront cash payment of INR 166 crore to financial creditors/employees, issuance of equity shares of INR 43 crore and issuance of 0.01% preference share of INR 162 crore. JK Paper would hold approximately 76% in SPM and the balance would be held by financial creditors. SPM has an annual installed capacity of approximately 140,000 tonnes.

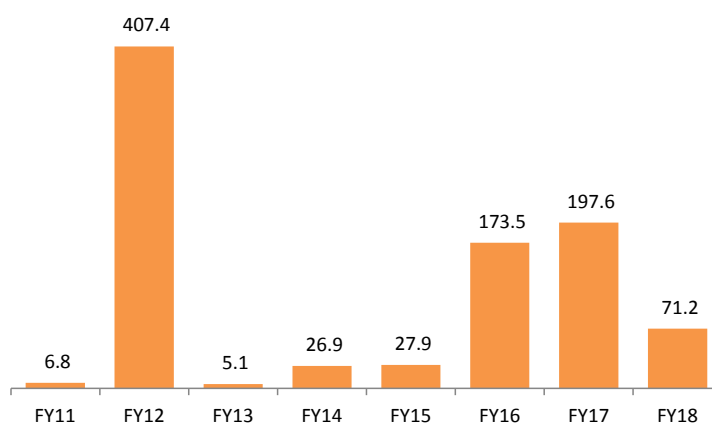
Budgetary support to Nepa Limited, a public sector newsprint company: The government has approved a financial package of Rs. 469.41 crore for the Revival and Mill Development Plan (RMDP), payment of pending salary/wages, statutory dues and funding Voluntary Retirement Scheme. This package includes:

- Infusion of Rs.277 crore as equity in the company for the completion of RMDP to ramp up the production capacity to 1,00,000 MT per annum from the current capacity of 83,000 MT per annum, diversify production, improve quality of products and also help resume production at Nepa Ltd.
- A loan of Rs.101.58 crore has also been approved for the payment of salary, wages, etc.
- A sum of Rs.90.83 crore for the voluntary retirement scheme of 400 employees.

The government has also approved the disinvestment of NEPA Ltd. after completion of the RMDP.

Trend in Foreign Direct Investments (FDI): The Paper and paper products industry (including) attracted FDIs worth Rs 457.8 crore or \$71.2 mn in FY18, which was 0.36% of total FDI equity inflows. In FY17, the industry received FDI worth Rs 1,320.2 crore or \$197.6 mn, while the industry attracted Rs 1,108.91 crore or \$173.5 mn worth of FDI in FY16.

Chart 14: FDI Movement (\$ mn)

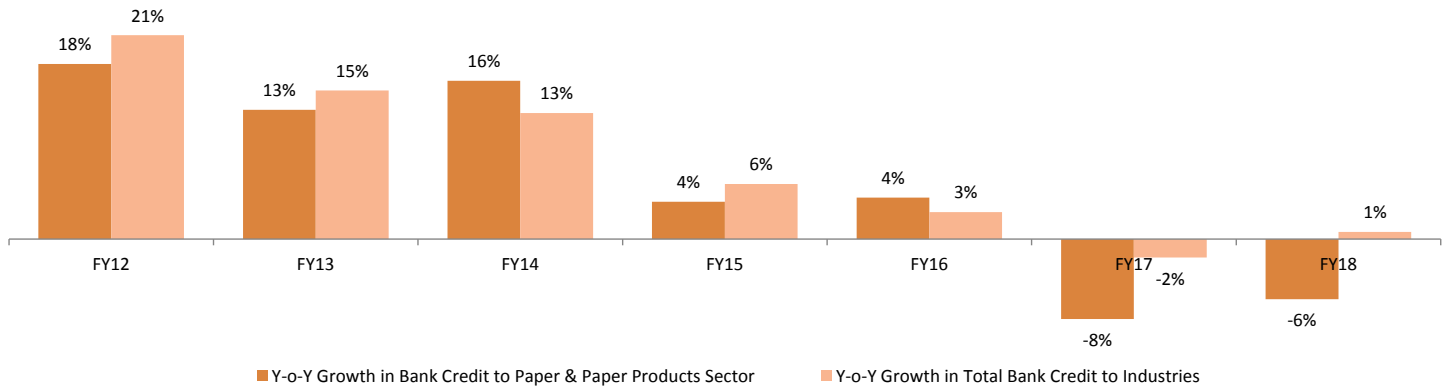


Source: DIPP, Ace Equity

Bank credit exposure

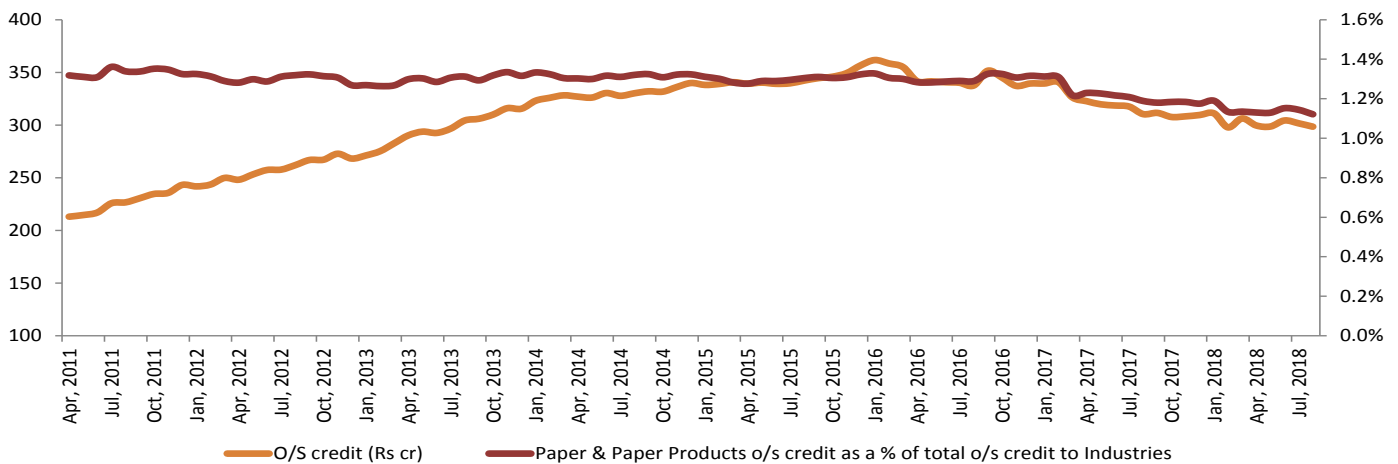
Share of paper & paper products sector in the total credit exposure of banks to industries has been in the range of 1.1% to 1.7%. The share was at its highest a decade ago in April 2007 and since then, has been steadily on a downward trajectory. Post FY09, barring two years (FY14 and FY16), y-o-y growth in bank credit exposure to the sector was consistently lower than the y-o-y growth in overall bank credit to industries. Despite the shrinking share in overall outstanding credit to the industries, outstanding credit to the paper & paper products sector has been on an upward trajectory in absolute terms from Rs. 134.7 bn at FY08-end to Rs. 355.1 bn at FY16-end. However the outstanding credit exposure had reduced at the end of the subsequent two years i.e. FY17 and FY18 to Rs. 326.2 bn and Rs. 306.3 bn, respectively. Further in FY19, the outstanding credit exposure has continued its descent despite increases in June 2018 and July 2018. Additionally, the stressed asset ratio² for the industry has increased over the last two years from 16% at March 2016 to 28% at March 2018.

Chart 15: Trend in Growth in Credit Exposure of Banks to Paper & Paper Products Sector vis-à-vis Other Industries:



Source: RBI

Chart 16: Trend in Share of Paper & Paper Products Sector in Total Outstanding Bank Credit to Industries

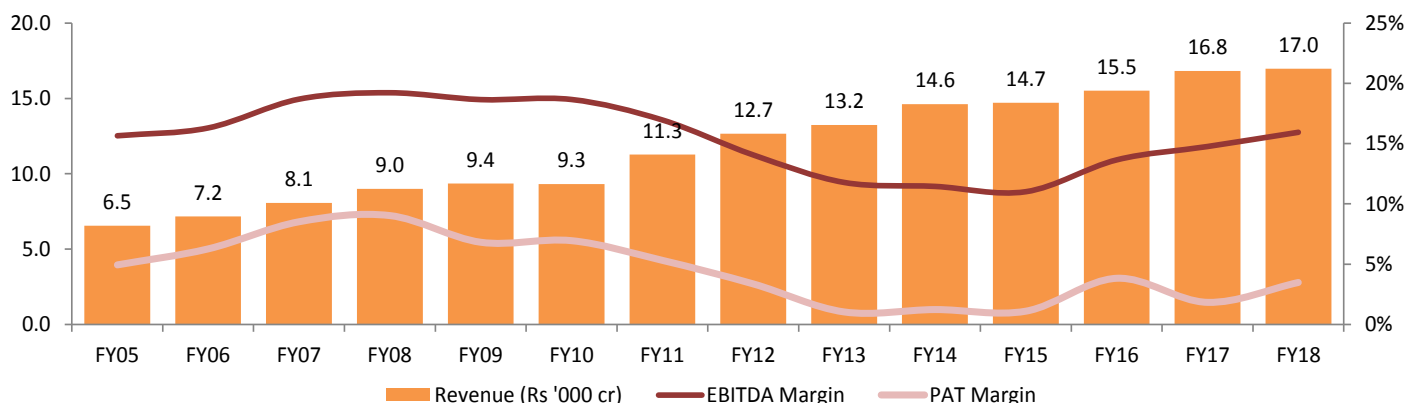


Source: RBI

² Stressed advances are defined as GNPA's plus restructured standard advances and stressed advances ratio is the % of stressed advances to the sector

Financials

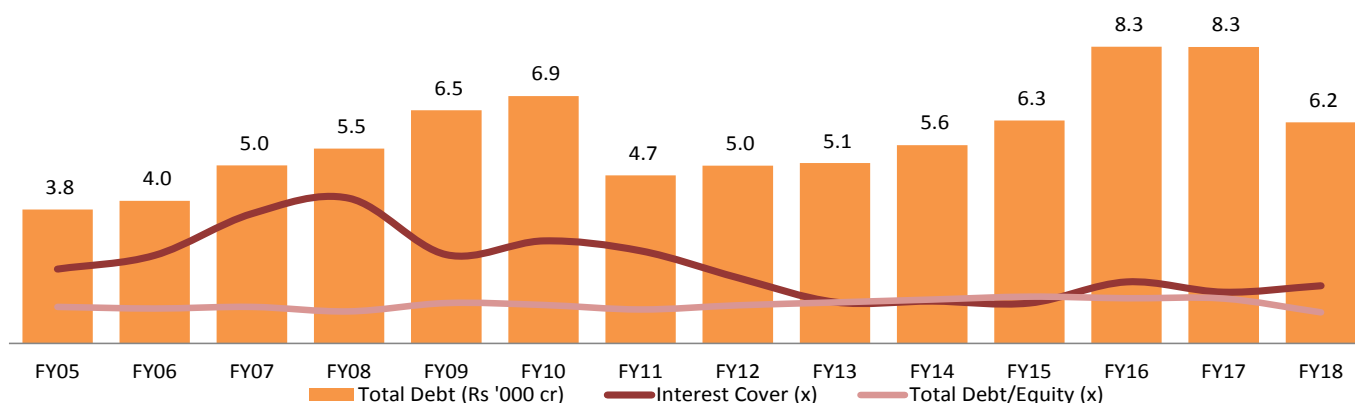
Chart 17: Trend in Revenues and Margins



Note: Dataset comprises of 24 companies in the paper and paper products industry
Source: Ace Equity

The Indian paper industry’s EBITDA margin rose from 15.7% in FY05 to 19.2% in FY08 and consequently reduced to 11% in FY15, while the PAT margin too increased from 4.9% in FY05 to 9% in FY08 and subsequently fell to 1.1% in FY15 due to 1) significant increase in the domestic capacity in a short time (which created surplus situation), 2) lower prices, and 3) increase in input costs (pulp and power). Further, cash flows were also strained due to debt repayment obligations. However, the EBITDA margin improved to 14.8% in FY17 due to 1) relatively stagnant capacity and 2) closure / reduced operation at some mills. The EBITDA margin further improved to 15.9% in FY18, despite capacity increases and rise in input costs due to 1) improved pricing scenario, 2) cost advantage of larger players and 3) Chinese ban on certain quality of recovered paper, which reduced prices.

Chart 18: Trend in Debt, Leverage and Interest Coverage



Note: Dataset comprises of 24 companies in the paper and paper products industry
Source: Ace Equity

The paper companies had borrowed in initial years e.g. FY05 to FY10 for capacity expansion and consequently the debt levels had increased for the industry from Rs 3.8 thousand crore in FY05 to Rs. 6.9 thousand crore in FY10. The debt levels declined significantly in FY11 but started to increase from that year onwards and peaked at RS 8.3 thousand

crore in FY16 and FY17. The interest cover too expanded and then fell due to subdued operating performance, the profitability decreased and interest coverage also declined. However, the industry's profitability improved in FY18 due to cost control measures, benign pricing environment and deleveraging, consequently, the metrics (debt/ equity as well as interest cover) improved

Outlook

Overall global demand is expected to remain subdued in the medium term, with only demand in the packaging paper & board segment slated to increase, while other segments are expected to either grow slowly or remain at similar levels.

For the Indian paper and paper products industry, as mentioned earlier, growth is expected to be driven by a combination of factors such as rising income levels, growing per capita expenditure, rapid urbanization and a larger proportion of earning population which is expected to lead consumption. Despite increasing digitization, **CARE Ratings expects that the overall paper demand growing at a CAGR of 6.7% to touch 20.8 million tonnes in FY21.** Despite the expectations that raw material (pulp and recovered paper) prices are expected to remain volatile due to 1) action by the Chinese government, 2) volatility in international waste paper prices, 3) healthy demand, and 4) forex fluctuations, the domestic industry profitability is expected to expand in FY19 driven by 1) increased realizations, 2) comparatively restricted imports due to higher pulp prices, and 3) the ability of larger players to source local pulp at a competitive rate.

Table 4: Segment wise Demand (million tonnes)

Segments	FY18	FY21P	CAGR (FY18-21P)	% Share FY18	% Share FY21P
Printing & Writing	5.1	5.8	4.5%	30%	28%
Packaging Paper & Board	8.7	11.1	8.5%	51%	53%
Specialty Papers & Others	0.8	1.2	15.0%	4%	6%
Newsprint	2.6	2.7	2.0%	15%	13%
Total Paper Demand	17.1	20.8	6.7%		

Source: Industry, IPMA, CARE Ratings

Printing and Writing segment demand is expected to grow at a CAGR of 4.5% and reach 5.8 million tonnes in FY21. The demand is expected to grow on account of 1) improving literacy rates, 2) growing enrolment and 3) increasing number of schools and colleges.

Packaging paper & board segment caters to industries such as FMCG, food & beverage, pharmaceutical, textiles, etc. Demand for Packaging Paper & Board segment is expected to grow at a CAGR of 8.9% and reach 11.1 million tonnes in FY21 due to 1) rise of e-commerce, 2) requirement of better quality packaging of FMCG products marketed through organized retail, 3) increasing demand for consumer durables, and 3) increasing preference for packaged food.

Improving literacy rates, rising circulation and an increasing number of newspapers and magazines is expected to support growth in newsprint demand which is expected to reach 2.7 million tonnes in FY21.