

Paper Industry - Update

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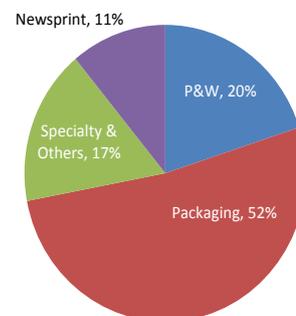
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Global Scenario

Globally over 400 million tonnes of paper and paper products were consumed in 2017. The global paper and pulp mills industry has contracted slightly over the past five years, primarily due to the shift to digital media and paperless communication across most developed economies. However, demand in emerging markets has partially offset the decline. Although demand for newsprint, and printing & writing has fallen due to the shift toward digital media and online advertising, the emergence of online retail has increased overall demand for paperboard product input materials.

Further, in 2017, pulp witnessed robust growth in global demand as well as low pulp and paper inventories of Chinese paper and cardboard manufacturers, which, together with limited supply, created favourable conditions for price increases. The supply was affected by unscheduled production downtimes which offset the capacity additions.

Paper & Board Consumption by Segment (FY17)

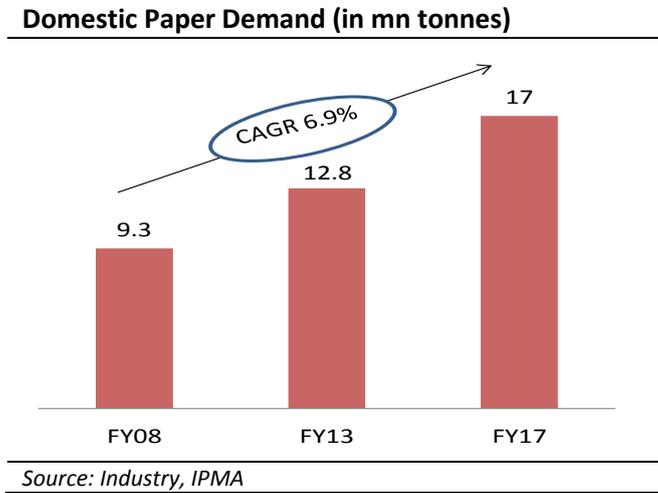


Source: Industry, IPMA, CARE Ratings

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Domestic Scenario

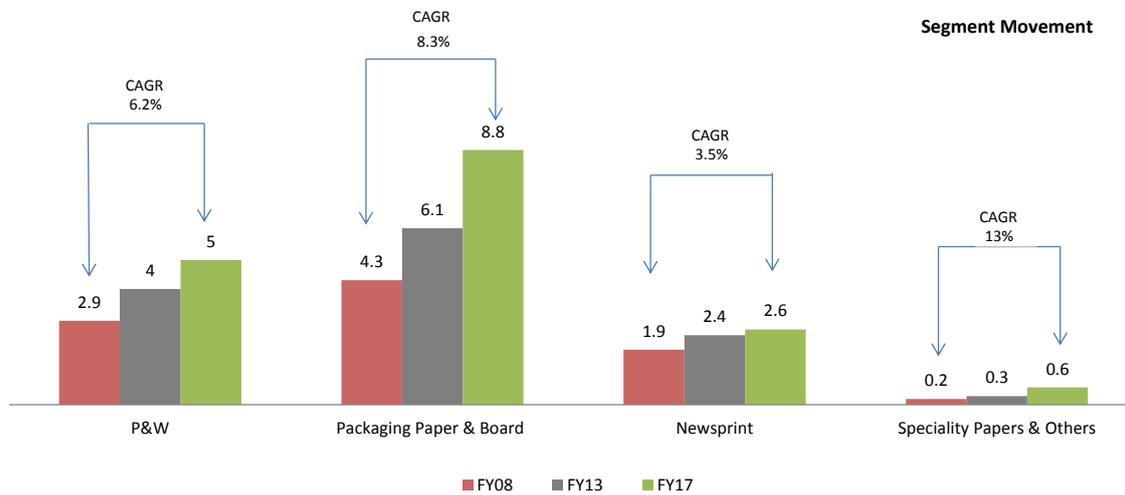
India is a large under-penetrated country, as despite the sustained growth witnessed by the industry, the per capita paper consumption in India stands at a little over 13 kg, behind the global average of 57 kg. The domestic demand in India grew from 9.3 million tonnes in FY08 to 17 million tonnes in FY17 at a CAGR of 6.9%.



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 52% in FY17.

Segment Breakdown and Movement (in mn tonnes)



Packaging paper & board segment accounting for nearly 52% of the total paper demand in India and is the largest segment in the industry. It grew at a CAGR of 8.3% from 4.3 mn tonnes during FY08 to 8.8 mn tonnes in FY17. 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 ~29% of domestic paper market. Domestic demand for P&W paper is 5 million tonnes. This segment is categorized into four parts, namely Uncoated Wood-Free (UWF), Coated Wood-Free (CWF), Uncoated Mechanical (UM) and Coated Mechanical (CM). Domestic production is sufficient to satisfy the domestic demand for UWF and CWF papers. However, the demand for UM and CM grades is met through imports due to the lack of availability of softwood or mechanical pulp in India. 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 Industry and grew at a CAGR of 3.5% during FY08-17 to 2.6 mn tonnes, on the back of improving literacy and increasing circulation of vernacular dailies. The prospect of newsprint segment primarily depends on its consumption by print media industry. However, imports account for a substantial portion of the consumption. With imported price realisations remaining steady, the share of imported newsprint in the total domestic newsprint consumption increased sharply from 50% during FY13 to approximately 60% during FY17.

Specialty papers & others is the smallest segment, accounting for only ~4% of the industry. It is used for packaging of gift items, grocery bags, etc. and tissue papers. This segment especially tissue papers is the fastest growing segment, albeit the on a much smaller base. Its demand is derived out of a general improvement in the standard of living which allows for the substitution of paper for general packing purpose.

The global demand for paperboard has increased marginally in 2016 and 2017, while the Printing & Writing and the newsprint segments have actually witnessed de-growth primarily on account of increased preference towards paperless economy and higher penetration of digital media. Global P&W segment is substantially smaller as compared to the domestic segment while Specialty segment is proportionally larger compared to its domestic counterpart (largely due to the tissue and similar paper being consumed globally on a much larger scale as compared to India).

Import – Export Trends

Paper and paper products imports rose by 11.2% to Rs 12,893 crore for the Apr-Jan 2018 period from Rs 11,593 crore for the comparable period in the previous year. In quantitative terms, imports increased by 15.2% to 2.9 million tonnes for the Apr-Jan 2018 period from 2.5 million tonnes for the comparable period in the previous year. Paper and paper products exports grew by at 34.5% to Rs 3,481 crore for the Apr-Jan 2018 period from Rs 2,589 crore for the comparable period in the previous year. In quantitative terms, exports increased by 38.7% to 0.8 million tonnes for the Apr-Jan 2018 period from 0.6 million tonnes for the comparable period in the previous year. This increase in imports has been led by the duty-free import from ASEAN countries and Korea. The Directorate General of Anti-Dumping and Allied Duties initiated investigations in November last year into imports of uncoated copier paper from Indonesia, Thailand, and Singapore and another investigation in January this year into imports of coated paper from China, the U.S. and the EU.

Trade Movement

Rs in crore	Apr 16-Jan 17	Apr 17-Jan 18	% Growth
Imports	11,593	12,893	11.2
Exports	2,589	3,481	34.5
in million tonnes	Apr 16-Jan 17	Apr 17-Jan 18	% Growth
Imports	2.5	2.9	15.2
Exports	0.6	0.8	38.7

Source: Department of Commerce, IPMA, HS Code: 4801, 4802, 4803, 4804, 4805, 4808 and 4810

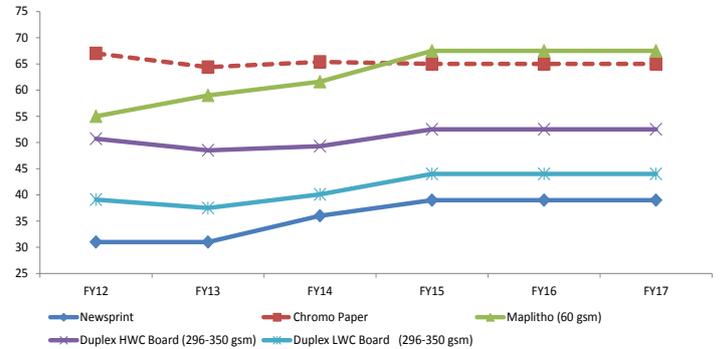
As per ASSOCHAM, India imports the following types of paper from the US, Europe, and Singapore: label stock, wet strength papers, tea bag tissue, soft tissue, filter paper, insulation kraft, extensible kraft, decorative laminates, overlay tissue, thermal papers, digital papers, coated papers/boards and some specialities. India exports following grades of papers primarily to its neighbours, Middle East, Eastern Europe: A4 copiers, wood-free (mostly from bamboo and agro waste by

several small mills), MG varieties (from small agro based mills), coated duplex (mostly recycled fibre) and large quantity of converted products like stationery items, calendars, books, magazines, children's play books and comics.

Prices

In the beginning of 2017, paper companies did not undertake price hikes because of factors such as competition from imports, stabilization in wood prices and lower power & fuel cost. Domestic paper prices have risen marginally in FY18. 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. Since mid-2017, China banned the use of mixed grade waste paper and demand for wood pulp (natural fibre) increased. Major pulp exporters such as Indonesia, Malaysia and Chile diverted pulp to China at a higher price, leading to a rise in price of end product.

Price Movement (per kg)



Note: Average Annual Prices per kg ex. Kolkata
Source: CMIE

Supply

On the supply front, the current installed capacity of the industry stands at around 14 million tonnes per annum and the industry is operating at a capacity utilization level of around 85 - 90%. After witnessing a growing rate of capacity addition in the early part of the decade, the planned domestic capacity (greenfield and brownfield) additions for paper and newsprint has slowed down, primarily due to a shortage of its key raw material i.e. pulp wood and rising prices of local waste paper. This has been partially mitigated by the agroforestry initiatives. However, the industry has been requesting for a policy to allow access to degraded forest land for paper mills to raise pulp wood plantations to enable sustainable source of raw materials. Mostly capex of the nature of modernization and debottlenecking are being undertaken currently. Additionally, capacity expansions are expected to be more in the Packaging segment with companies such as West Coast Paper, Genus Paper & Boards than the Printing & Writing segment.

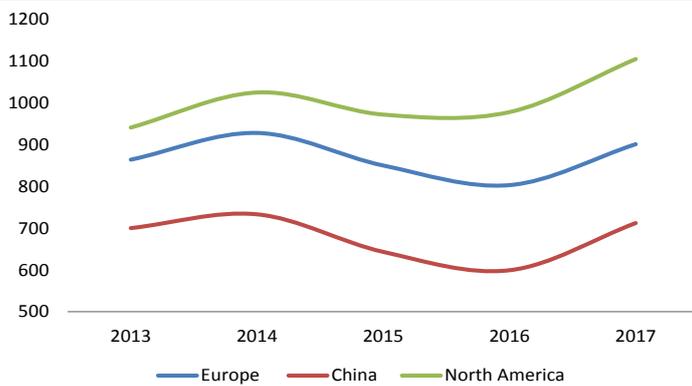
The sector witnessed supply disruptions primarily on account of shut down of capacity by a major player, leading to higher realisations thereby improving profitability for most players. However, pricing power of players is expected to remain muted on account of recent capacity additions as well as threat from cheap imports under the Free Trade Agreements (FTAs). Government's policy of extending preferential tariff treatment to import of paper and paperboard under the free trade agreements (FTAs) and other bilateral and multilateral trade agreements has led to enhanced duty-free import of paper especially from Malaysia, Indonesia and Thailand thereby impacting domestic players

Raw Material Scenario

Pulp is the primary raw material used for manufacturing of paper, and is obtained through processing of fibres separated from wood, wastepaper, agriculture residues etc. Indian paper mills are categorized based on raw materials used by them in the manufacture of paper - wood/forest based mills, agro-based mills and wastepaper based mills. Due to the limited availability of wood, agro-based raw materials and waste paper are generally used as substitutes for manufacturing paper. Wood accounts for 30-35% of production, while wastepaper and agri-residues account for 45-50% and 20-22%, respectively. India has a total land area of 3.3 million sq km with forests covering only 0.7 million sq km. About 78% of the total land area is non-forest area. With diminishing forest resources and limitations on enlarging man-made forests, there is scarcity of raw material for paper mills.

On the raw material side, due to the domestic scarcity of wood, the wood based companies have increasingly resorted to import of wood chips and also invested in the social forestry initiatives for supply of wood. The waste paper is imported as well as domestically procured. The price of wood had increased substantially in the period FY12- 15 by around 16.7% CAGR. The rise in input costs coupled with foreign exchange fluctuations led to stress on profit margins for most players during this period. However, the wood prices have fallen in FY16 and FY17 by around 9-10% from peak levels of FY15 leading to improvement in profitability

Average NBSK Pulp List Price (\$/ADMT)



Source: Mercer International 10K

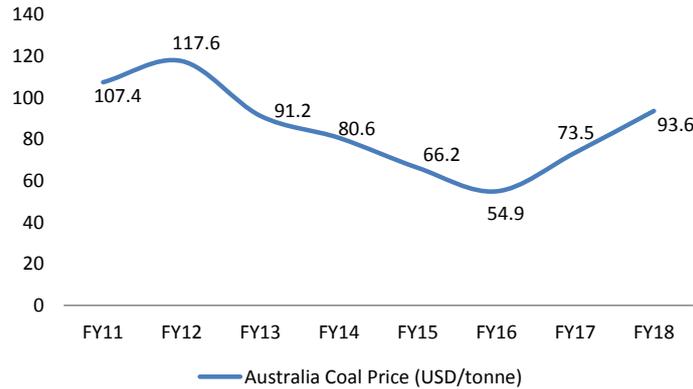
Kraft pulp is a globally traded commodity and prices are highly cyclical and volatile. Pricing is primarily influenced by the balance between supply and demand, as affected by global macro-economic conditions, changes in consumption and capacity, the level of customer and producer inventories and fluctuations in exchange rates. The average European list prices for NBSK pulp since 2008 have fluctuated between a low of approximately \$575 per ADMT in 2009 and a high of \$1,030 per ADMT in late 2017. In the first three months of 2018, pulp prices in Europe, China and North America increased compared to the last three month of 2017 due to steady demand and lower levels of recycled fiber availability in China due to recent

import restrictions. At March 2018 end; list prices in Europe, China and North America were approximately \$1,130, \$910 and \$1,260 per ADMT, respectively. The additional pulp production capacity coming online is not expected to materially impact the prices as a result of continued demand growth and declining recovered or waste paper availability in China. Further in 2018, recycled fiber globally is expected to remain flat as restrictions on imports to China would increase global availability of the same.

Non-wood fibre as a source for paper manufacturing: According to industry experts, agricultural residue is more sustainable for paper manufacturing as compared to wood fibre. Certain agricultural residue pulps take less time to process than wood pulps indicating that agricultural-based paper requires less energy & water and fewer chemicals. Bagasse and grain straws are the main agricultural residues used by paper industry. High availability of agricultural residues and various financial incentives provided by the government in the past lead to increased usage of agriculture residues fibre for paper production. For a variety of reasons including seasonal availability, problems with chemical recovery, brightness of the pulp etc, non-wood fibre sources account for a very small portion of global pulp production. Still it is believed that agro-based paper manufacturing is extremely cost-competitive and highly environmental-friendly than wood pulp, resulting in lower cost of production and could be a sustainable competitive advantage for companies.

The packaging paper & board players having their manufacturing units largely based on wastepaper; consumes lower amount of energy compared to the other segments, in pulping and digesting stage of manufacturing process. In light of restrained supply of coal domestically, the players depend on the imported coal. The general decline in imported coal prices coupled with energy saving efforts of the paper manufactures reduced the power & fuel cost of the industry. The decline in the imported coal prices was partly off-set by the weakening rupee. In FY18, international coal prices increased, which is expected to increase costs.

Imported Coal Price Movement



Source: CMIE

In India, adequate supply of water is an important factor for determining the location of pulp and paper plant as the industry is one of the largest consumers of water. Large integrated mills generally source their water from surface water (such as rivers) whereas large numbers of small and medium sized paper mills are dependent on ground water. According to CPPRI estimates, average fresh water consumption for a domestic forest-based paper mill is estimated to be in the range of 120-200m³/t compared to international standard of 20-60m³/t. This is largely on account of the use of obsolete technology and poor water management practices.

Chemicals are also one of the major cost drivers of paper and the degree of chemical usage depends upon the raw-material used in the paper-making process. There are a number of chemicals required to be added, particularly in the pulping and bleaching stage of paper production. Major chemicals used are chlorine, sodium chlorate, caustic soda (flakes prices increased by 32% yoy in December 2017 to reach Rs 50.2 per kg), sodium sulphate, sodium sulphide, chlorine dioxide, oxygen, calcium hypochlorite, ozone and hydrogen peroxide. The other auxiliary materials, such as dyes, starch, clay and resin are less significant because of the relatively small quantities of usage.

Immediate challenges include lack of access to quality and cost competitive raw material, competition from imports and outdated technology especially in the smaller mills, while a longer term challenge includes a shift to Digital, which would reduce paper consumption.

Furthermore, the Government has released the draft National Forest Policy in March 2018 for comments. The draft policy amongst other proposals, does propose agro forestry and access to degraded land on a public private participation model fulfilling a long standing industry demand.

Domestic Industry Growth Prospects

For the Indian paper industry, strong economic growth has been accompanied by equally robust demand for paper. The demand drivers and growth triggers have come from 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 and there is enormous potential for the paper industry in the country. CARE Ratings expects that the overall paper demand growing at a CAGR of 6.7% to touch 20.7 million tonnes in FY20. Tight markets, low Chinese pulp inventories, lack of supply coming to the market, and healthy demand are the primary factors that provide an upside to the prices in 2018. The waste paper prices, however, may fluctuate on account of volatility in international waste paper prices, healthy demand, and forex fluctuations. Additionally, the Chinese Government has banned the import of several varieties of waste paper, which is the primary raw material for finished paper. Consequently, the production of finished paper is

expected to be hampered in China. This in turn is expected to lead to some relief in raw material prices and improve realizations. The profitability of the players is expected to be maintained in the medium term at the back of eased out cost side pressures and improved realizations of the finished goods.

Segment wise Demand (million tonnes)					
Segments	FY17	FY20P	CAGR (FY17-20P)	% Share FY17	% Share FY20P
P&W	5.0	5.7	4.2%	29%	27%
Packaging Paper & Board	8.8	11.4	8.9%	52%	55%
Specialty Papers & Others	0.6	0.8	12.0%	4%	4%
Newsprint	2.6	2.8	2.5%	15%	14%
Total Paper Demand	17.0	20.7	6.7%		

Source: Industry, IPMA, CARE Ratings

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 11.4 million tonnes in FY20 due to factors such as increased urbanization, requirement of better quality packaging of FMCG products marketed through organized retail, and increasing preference for ready-to-eat foods.

Printing and Writing segment demand is expected to grow at a CAGR of 4.2% and reach 5.7 million tonnes in FY20. The demand is expected to grow on account of an anticipated pick-up from the education sector with improving literacy rates and growing enrolment as well as increasing number of schools and colleges.

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 2.8 million tonnes in FY20.