This methodology note stands superseded. Refer to ICRA's website www.icra.in to view the updated methodology note on the sector.

Rating Methodology for Indian Textiles Industry – Spinning

The following note identifies the key factors ICRA considers when assessing credit risk in the Indian Spinning industry. The objective of this note is to help investors, issuers and other market participants to understand how ICRA analyses creditworthiness. The analysis focuses on the following key rating factors that are common to assigning ratings in the sector. The key rating factors are:

- **Business Risk Analysis**
  - Scale of operations
  - Vintage of manufacturing facilities
  - Capacity utilisation levels
  - Cost-structure analysis and efficiency drivers
  - Raw material diversification and inventory levels
  - Level of forward integration
  - Revenue composition and sale realisation
  - Diversification – Products, customers, sales channel and geography
- **Financial Risk Analysis**
  - Contribution analysis
  - Working capital management, liquidity and inventory valuation
  - Scale of capital expenditure and sufficiency of funding availability
  - Eligibility for fiscal incentives
  - Foreign Exchange Risks
  - Financial statements analysis, ratios and peers benchmarking
- **Promoters/Management Quality**

Business Risk Analysis

Scale of operations

The Indian spinning industry is highly fragmented, with the largest player in the industry accounting for less than 3% of the overall installed capacity. However, ICRA believes that yarn being a commoditized product, larger capacities results in better cost structure and offer the benefit of economies of scale for larger players. During the last 15 years, the average size of the spinning unit in India has increased from ~24000 spindles to ~28000 spindles. Companies below this average unit size may find it difficult to have a competitive cost structure in the commoditized yarn market, unless the capacity is recently added, as it will have a better level of modernization.

Vintage of manufacturing facilities

A modernized facility offers lower downtime, higher throughput, lower wastages and better production yields with lower manpower. Conversely, an old unit may suffer from higher break downs, lower yields, throughput and higher manpower and maintenance costs. Hence the vintage level of the manufacturing facilities can influence revenues, realizations as well as cost structure and hence the overall profitability. Typically the vintage of the spinning mill can be measured by the average age of spindles in the manufacturing facility as the recently added capacities will typically have higher modernization like automated material movements leading better quality, lower wastages. Modernized machinery also improves the ability to offer consistent quality products thereby improving the ability of players to derive better sales realizations on an overall production.

September 2015

○ Capacity utilization levels

Spinning is a highly capital intensive industry requiring significant investments in plant and machinery. A typical spinning plant with ~25000 spindles will have a capital cost of ~Rs 75 crore to Rs 85 crore, depending on location and nature of expansion, i.e. greenfield or brownfield. This spindle capacity could potentially generate revenues of Rs. 80~100 crore depending on the fibre usage and yarn count being produced by the mill. With the availability of various fiscal incentives, such as interest subsidy from central and state governments, there is a high tendency for companies in the industry to leverage, resulting in sizeable interest and repayment burden. Given the high leverage, the ability to consistently operate at high capacity utilisation levels and ability to rapidly ramp-up the production from a newly commissioned unit are of utmost importance to reduce the capital costs per unit of production.

The production level of the spinning units with similar spindleage capacity can vary significantly based on the yarn count, whereby the spinning unit in a higher count range will have lower production per spindle as compared to another spinning unit in a lower count range, which will have higher production per spindle. Accordingly, the mill producing yarn in the higher count range will have lower yield but will have higher realisation and profit margin.

Further, the production from the spindles is also a function of the fibre being used by the spinning unit, whereby manmade fibres, like acrylic, polyester, viscose etc result in higher production per spindle as compared to cotton fibre. The higher production with manmade fibres is attributable to the ability to operate spindles at higher speeds due to higher fibre strength; and longer and consistent fibre length, thereby resulting in higher throughput in relation to cotton fibre from a similar spindle capacity.

Accordingly, ICRA uses the capacity derived at the average count range being produced by the company and type of fibre used as reference for calculating capacity utilisation levels.

The capacity utilisation for the industry maintained an average of ~ 90% during the last decade, with variations of 5% depending on the demand-supply scenario. The ability to consistently operate at higher than average industry utilisation, which in turn is a function of various parameters like the level of modernization, regular availability of power and order book position, is a positive attribute.

○ Cost-structure analysis, efficiency drivers and contribution analysis

The spinning industry is raw-material intensive with fibre cost accounting for ~2/3rd of the total revenues, followed by power and fuel (P&F) cost accounting for ~9% and manpower cost accounting for ~5% of the revenues. Other manufacturing expenses (like repairs, store and consumables etc), selling expenses (packing costs, outward freight, discounts etc) and general and administrative expenses further form ~5.5%, 2.5% and 1.5% of the total revenues respectively.

Raw Material Costs: The raw material costs for a given fibre are not only the function of the market prices, which typically tend to vary as per the domestic as well as international demand-supply scenario for the fibre, but also depend on the location of the mill from the centres of raw material. For example, due to favourable agro-climatic conditions for cotton, domestically the cotton fibre is mostly available in the state of Gujarat, Maharashtra, Andhra Pradesh, Madhya Pradesh, Rajasthan, Punjab and Haryana. Cotton spinning mills in these locations are in a better position vis a vis mills located in non-cotton producing states. Similarly, most of the man-made fibre capacities are located in the state of Maharashtra, Gujarat and UT of Daman and Diu, Dadra Nagar and Haveli because of proximity to oil refineries, sea ports and concessional power tariff offered to the texturizing industry in these states

Apart from fibre prices, the production yields in terms of final yarn production, waste generation and fibre losses also determine production efficiencies. Though yarn production and waste generation is the function of a type of yarn manufactured (combed/carded yarn) and type of fibre (cotton/man-made fibre), however minimisation of the fibre loss improves the overall revenue, be it from waste sale or from yarn sales

Power and Fuel Costs: Within P&F costs, power is the major component and the cost of grid power can vary from state to state. Apart from the grid power, lack of regular power availability may require the mills to operate on captive power to achieve high utilisation of manufacturing capacities. However captive power costs can vary depending upon its source, like coal, liquid fuel (which is very costly), group captive power plants or wind mills. Hence the overall power costs for mills can vary significantly depending on the location of mills and source of the power. Certain mills with the flexibility to source power through open access can benefit in a scenario of lower prices in merchant power markets. Apart from per unit cost of power, while

analysing the overall P&F costs, the consumption norms (as measured in units consumed per ton of production), become the overall factor for determining the competitiveness of cost structure.

Manpower costs: The manpower cost for a mill is governed by its level of modernisation and can vary from ~3% of revenues for a modern mill (requiring lesser manpower) to as high as ~8% of revenues for older mills. On the other hand, new mills have associated capital costs (such as interest and depreciation/repayments) that older mills do not. ICRA also notes that the availability of labour in certain locations does affect the capacity utilisation levels, and adequate availability of skilled labour at competitive costs are also positive factors.

Contribution Analysis: Similar to the analysis for commoditized products, where the gross and net contribution levels are measured in terms of profit per unit of sales, ICRA also assesses the contribution margins per ton of yarn sales. The cost structure is analyzed for per ton of production not only in terms of consumption norms but also in terms of unit cost of production to assess the key cost drivers and the movement in these factors. Subsequently, the ability of the company to pass on the increases is assessed by its ability to retain/improve gross/net contribution levels.

○ Raw material diversification and inventory levels

The key raw material for the spinning industry is fiber, which can be either natural, i.e. cotton or manmade, such as polyester, viscose or acrylic.

Though the ideal level of fiber stock which the mill should have should be equal to the level of orders in hand to hedge themselves against changes in raw material prices, seasonality of cotton (as it is available from October till March) may require the mills to stock cotton to meet the fiber requirements during the balance year. However, unlike cotton, manmade fibers are available throughout the year and don't require stocking.

Hence a mill based on manmade fiber/diverse fibers will have lower peak working capital requirements than a mill based on cotton. This apart, given that the prices of fibers can be volatile, excess stocking (in relation to orders in hand) can expose the mills to possible inventory losses. The volatility in cotton fiber prices after the harvest season can be driven by the expectation of crop production in the next season, whereas manmade fibers, being crude oil derivatives witness volatility on account of crude oil prices. The volatility in fiber prices, apart from the above factors can also be driven by the domestic/ international demand-supply situation in the particular fiber. Fiber prices in the domestic market also experience volatility due to exchange rates, give that fibre is an internationally traded commodity. The risk of inventory loss however, is higher for mills based on cotton due to the typical stocking of cotton while mills based on man-made fiber generally maintain a low level of fiber stock due to regular availability during the year.

ICRA also notes that the management plays an important role in inventory stocking levels; hence these can vary from mill to mill. They are governed by the management's outlook on the fiber prices, apart from their funding ability. As a result, the track record of the management in terms of prudent inventory stocking remains a key input to determine the risk appetite of the management.

On an average for the last five years, for more than 200 entities rated by ICRA, the inventory levels have remained closer to ~3 months, however for mills based on manmade fiber, the inventory levels typically stands at ~1 month. Apart from the overall inventory, the inventory mix in terms of raw material, finished goods and work-in process are also benchmarked in relation to industry average, whereby the finished goods for the spinning mills vary from ~10~15 days depending on market conditions, whereas the work-in process typically stands at ~3~5 days depending on the level of integration and product range.

○ Level of forward integration

The spinning mills can have forward integration into fabric manufacturing (including towels, home textiles, denim etc) apart from adding value in terms of yarn processing like yarn dying etc. While the prices of the fabric also tend to fluctuate in relation to the yarn prices, the profit margins are typically steady due to limited raw material stocking. As a result, in case of inventory loss in the spinning segment due to decline in the cotton prices, steady profit from fabric manufacturing supports the overall profits of the spinning mill. In addition, captive yarn availability for in-house consumption results in savings from transportation costs, packing costs, selling costs and taxes. Hence mills that have forward integration with sizeable in-house yarn consumption will enjoy superior operating profitability margins and lower volatility in margins than a standalone spinning mill. This is a positive rating attribute.

○ Revenue composition and sale realisation

While analyzing revenues, it is sub-categorized into revenues derived from the manufacturing and trading activities. Also, the factors driving revenue growth are analyzed. For manufacturing revenues, the growth due to volumetric growth and growth in sales realizations is analyzed to assess the ability of the company to pass the hike in the input costs by way of higher sales realizations. These apart, revenue break-up by product categories and other operating income (such as export incentives, scarp/waste sales) are analyzed along with volumetric data to assess the product-wise sales realization and share of value added products in the total revenues.

Once the levels of sale realizations are established, these are compared with the industry trends and the reasons for variance vis-à-vis industry trends are analyzed and the factors which can sustain or impact these trends are looked into. Revenues derived from the related parties/group companies are assessed for their arms-length transactions and accordingly, if required, the profitability levels are seen in relation to the nature of these transactions.

○ Diversification – Products, customers, sales channel and geography

For a spinning mill, diversification can not only be achieved by way of fiber content, but also in terms of count range, varieties and color range of the yarn manufactured. This apart, diversification can also be achieved in customer profile (concentration towards top customers), sales channels (dealers vs direct sales) and geography (domestic vs exports).

The ability to manufacture a diversified product range across various counts, varieties and colors (dyed vs grey yarn) are positive factors, as it improves the value addition and provides the flexibility to shift the product offerings and retain pricing power in commoditized product like yarn. Similarly a diversified customer profile also protects the company from the vagaries of any adverse development at one customer end, as any reduction in demand from particular customer can impact sales. By virtue of sales concentration to a customer, it is highly possible that the company may also have receivable concentration from this customer and hence a decline in sales from the customer can also jeopardize the receivable position.

ICRA notes that dealers are an important intermediary for mills for the purpose of order aggregation, customer service and sometimes also financing by making faster payments to mills vis a vis the payment realization from end customers. Dealers also add value by way of sharing the credit risk of the customers, which may not be known to the mills. As a result, sometimes, even the direct sales are routed by the mills through dealers for client servicing, ensuring faster payments and sharing of credit risk. Direct relationships or nominations by weavers/garmenters can be established either by way of niche product offerings or consistency in quality and delivery.

Apart from geographical diversification through exports, ICRA also considers the mill's concentration towards a particular export market. Diversified export sales to various countries can protect against adverse outcomes, which may arise by way of trade restrictions (such as imposition of import duty) or decline in demand in the importing country, or reduction/removal of export incentives for exports to particular country. A diversified marketing network imparts flexibility to the mill to sell its production in the different markets and enjoy superior profitability margins.

Financial Risk Analysis

Apart from the operational risk profile, the rated entity's financial profile is also an important consideration from a credit perspective. While ICRA believes that the strong operational profile drives strong financial profile in long-term, however the financial profile of the entity is also governed by the risk appetite and growth plans of the management. Accordingly, while assessing the financial risk profile, apart from the past and the current financial position, ICRA also takes note of the growth plans of the company and its impact on the financial position in future. The past and the current financial position can be analyzed by the financial statements of the company, financial ratios and suitable adjustments in accounts to align them with accounting principles and also make them comparable for meaningful peer comparison.

○ Profitability

The profitability margins in terms of ratios like OPBDITA/OI (operating profits before depreciation, Interest and amortization / Operating Income) and PAT/OI (Profit After Tax / OI) are seen in relation to changes in the contribution margins. A mere decline in profitability margin with stable contribution margins (Rs/Kg or Rs/MT) is not necessarily seen negatively. These apart, the above profitability margins are also seen in

relation to the overall return on capital. Higher OPBDITA margin due to backward or forward integration (requiring more capital) is also seen in relation to the return on capital employed (RoCE[1]), which in-turn is seen in relation to the cost of capital. While the company may have an OPBDITA margin similar to or better than industry average, but in case the RoCE is lower, then the reasons for the same are analyzed, which can be lower fixed asset turnover or longer working capital cycle than industry average. For more than 250 spinning mills rated by ICRA, during the last five years, the average OPBDITA margins have averaged ~12% with net profit margins of ~1%. The RoCE has average at ~10% levels with fixed asset turnover (Operating income/Gross Block) of ~130%. As can be seen the RoCE of ~10% is low, however given that most of the spinning mills enjoy interest subsidies under Technology Upgradation Fund Scheme (TUFS) of Government of India, the average cost of capital for mills also accordingly goes down.

○ Working capital management, liquidity and inventory valuation

Apart from inventory, which has been discussed earlier, the level of working capital is also driven by the receivable position, which on an average has remained at ~45 days for more than 250 spinning mills rated by ICRA. The overall receivable position is analysed for its aging (its comparison with eligibility for drawing power) and debtor concentration towards few entities are also analysed to assess the quality of receivables. For export receivables, the credit risk mitigants such as ECGC cover or Letter of Credit (LC) backed receivables are also taken as comfort factors.

Given the working capital intensive nature of operations and seasonality in working capital requirements, the peak working capital requirements are typically higher for cotton-based spinning mills than their average working capital requirements. This coupled with the high leveraging of players in the sector leading to sizeable repayment obligations necessitates the need for maintaining liquidity for ensuring timely repayments. ICRA measures liquidity by comparing fund-based working capital limit utilisation with sanctioned fund-based working capital limits or drawing power, whichever is lower and assessing the cushion which is available in working capital limits for debt servicing on a consistent basis. The drawing power can be a function of the inventory valuation and hence it is also seen in relation to the realizable value, especially in a declining price scenario.

○ Capital structure, leverage and debt coverage indicators

Companies that pursue an aggressive financial policy, including heavy reliance on debt financing, are likely to be more vulnerable to cyclical downturns than companies that have a lesser degree of financial leverage in their business. ICRA takes into account the financing pattern of long term and short term assets with reference to the company's long term and short term debt.

The spinning business being both fixed capital as well as working capital intensive; it results in high funding requirements. With the availability of TUFS incentive from central government and other incentives from state governments, which provides for capital as well interest subsidies, the cost of debt funding gets reduced. This incentivizes the industry participants to operate at high financial leverage, but at the same time increases the vulnerability to cyclical downturns.

Some of the key indicators observed by ICRA include –

- Leverage indicators
  Total Debt/Tangible Net Worth, Total Outside Liabilities/Tangible Net Worth, Total Debt/OPBDITA
- Debt coverage ratios
  Interest Coverage, DSCR, Net Cash Accruals/Total Debt
- Liquidity ratios
  Current Ratio

The high leverage for the sector is reflected in last 5 year average TD/TNW of ~2.85 x, Interest coverage of ~2.5X, DSCR of ~1.3X, TOL/TNW of ~3.5X, Total Debt/OPBDITA of ~4.5X, current ratio of ~1.2X and net cash accruals/Total debt of ~12% for more than 250 spinning mills rated by ICRA.

Low leverage improves the financial flexibility of the company during any downturn, besides keeping the fixed financing expenses low. Moreover, the tenure of the term debt is a key driver for the debt coverage as companies with longer tenure debt and similar levels of leverage will be more comfortably placed as compared to companies with shorter tenure debt. Though the TUFS interest subsidy is available for 7 years from the sanction of the loan, companies may avail of a longer tenure loan to spread out the debt repayment liability over a longer duration.

[1] RoCE is defined as profit before interest and taxes / average capital employed for the year

○ Scale of capital expenditure and sufficiency of funding availability

Being highly capital intensive and due to the availability of various fiscal incentives for capital investments, capacity expansion is a regular feature for the industry participants. While the company may have DSCR >1 over the projected period, ICRA also notes the sufficiency of the balance cash accruals (after meeting scheduled repayment) to fund the equity margin required for funding growth. If the projected levels of cash accruals (after repayments) are lower than equity funding requirement for capital expenditure and enhanced working capital requirements, then despite a satisfactory projected DSCR, the company may find itself stretched on liquidity. In such a situation, the financial flexibility of the company to fund its growth requirements is seen as an important factor.

○ Eligibility of fiscal incentives

The fiscal incentives like interest subsidy are mainly available on term loans/long-term debt meant for setting up the manufacturing facilities. Given the fixed capital intensiveness of the sector, long-term debt typically accounts for ~60% of the overall borrowings of the spinning companies. Given the sizeable proportion of the long-term debt requirements, availability of fiscal incentives can reduce the overall cost of borrowings and improve the debt coverage ratios for the same levels of operating profitability and debt vis a vis another entity, which is not eligible for such incentives.

○ Foreign currency related risks

Foreign exchange risk for spinning companies emanates by virtue of yarn export orders and foreign currency receivables. With most of the costs being rupee denominated, the scope of a natural hedge remains limited for the companies. To hedge these risks, the company may choose to avail working capital in foreign currency, like packing credit in foreign currency/bill discounting in foreign currency, which should be equivalent to the export order value or forex receivable position. Alternately, the company can also fund its current assets by rupee working capital borrowings and take a forward position equivalent to pending export order book and forex receivables. The outstanding forex position by way of forwards or working capital borrowings in foreign currency is compared with the export orders and forex receivable position to check the overall unhedged exposure. The effectiveness of a hedge by way of similar tenure forward contracts as is the shipment schedule of the export orders is also assessed.

Apart from the above financial parameters, off balance sheet exposures/ contingent liabilities and likelihood of these liabilities getting materialized are also taken into account while assessing the credit profile.

Promoters/ Management Quality

All debt ratings necessarily incorporate an assessment of the quality of the issuer's management, as well as the strengths/weaknesses arising from the issuer's being a part of a "group". Also of importance are the issuer's likely cash outflows arising from the possible need to support other group entities, in case the issuer is among the stronger entities within the group. Usually, a detailed discussion is held with the management of the issuer to understand its business objectives, plans and strategies, and views on past performance, besides the outlook on the (issuer's) industry. Some of the other points assessed are:

- Experience of the promoter/management in the line of business concerned
- Commitment of the promoter/management to the line of business concerned
- Risk appetite of the promoter/management and risk mitigation plans
- The issuer's policies on leveraging, interest risks and currency risks
- The issuer's plans on new projects, acquisitions, expansion, etc.
- Strength of the other companies belonging to the same group as the issuer
- The ability and willingness of the group to support the issuer through measures such as capital infusion, if required

Periodic interactions with the management provide insights into the operations of the company and ongoing developments and further help understand the management's commitment to the business and strategies. The interactions with the management also help ICRA estimate the probability of the management's tendency to deviate from its business philosophy in times of stress.

Summing Up

ICRA's credit ratings are a symbolic representation of its opinion on the relative credit risk associated with the instrument being rated. This opinion is arrived at following a detailed evaluation of the issuer's business and financial risks, its competitive strengths, it's likely cash flows over the life of the instrument being rated and the adequacy of such cash flows vis-à-vis its debt servicing obligations and other funding requirements. The credit profile of spinning companies involves an assessment of the business strength and weaknesses as reflected by their scale of operations, operating efficiencies owing to their presence in highly competitive product segment and diversifications in terms of product and customer profile. The operational strengths are typically reflected in financial performance. However the financial risk profile for industry is also governed by their future growth plans given the high leveraging in the sector and ability to fund these. These apart, given the cyclicality in sector arising out of raw material price volatility as well as demand from export markets, prudent inventory management also govern the financial risk profile.

ICRA Limited
An Associate of Moody's Investors Service

CORPORATE OFFICE
Building No. 8, 2nd Floor, Tower A, DLF Cyber City, Phase II, Gurgaon – 122002
Tel.: +(91 124) 4545 300; Fax: +(91 124) 4545 350

REGISTERED OFFICE
Kailash Building, 11th Floor 26, Kasturba Gandhi Marg, New Delhi 110001
Tel.: +(91 11) 2335 7940-50; Fax: +(91 11) 2335 7014, 2335 5293
Email: info@icraindia.com Website: www.icraratings.com, www.icra.in

Branches: **Mumbai**: Tel.: + (91 22) 24331046/53/62/74/86/87, Fax: + (91 22) 2433 1390 o **Chennai**: Tel + (91 44) 2434 0043/9659/8080, 2433 0724/ 3293/3294, Fax + (91 44) 2434 3663 o **Kolkata**: Tel + (91 33) 2287 0450, 2240 6617/8839, 2280 0008, Fax + (91 33) 2287 0728 o **Bangalore**: Tel + (91 80) 2559 7401/4049 Fax + (91 80) 559 4065 o **Ahmedabad**: Tel + (91 79) 2658 4924/5049/2008, Fax + (91 79) 2658 4924 o **Hyderabad**: Tel +(91 40) 2373 5061/7251, Fax + (91 40) 2373 5152 o **Pune**: Tel + (91 20) 2552 0194/95/96, Fax + (91 20) 2553 9231