



WEAVING SECTOR

An Overview

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TEXTILE | VALUE CHAIN

- Textile cluster has one of the largest value chains in the manufacturing universe.
- The following flow chart depicts the major processes along with the output of textile value chain;



WEAVING | INTRODUCTION & PROCESS

Weaving is the process of converting cotton yarn into raw fabric. It plays an instrumental role in the textile cluster. In basic weaving, two distinct sets of yarns or threads are interlaced at right angles to form a fabric or cloth, commonly known as Grey Cloth.

Process

The yarn has to be processed prior to weaving. There are four steps in the weaving process;

1. **Shedding:** Raising and lowering of warp yarns by means of the harness to form shed, opening between warp yarns through which weft yarn passes.
 2. **Picking:** Inserting of weft yarn by the shuttle through the shed.
 3. **Beating Up:** Packing the weft yarn into the cloth to make it compact.
 4. **Taking Up:** Winding newly formed cloth onto the cloth beam.
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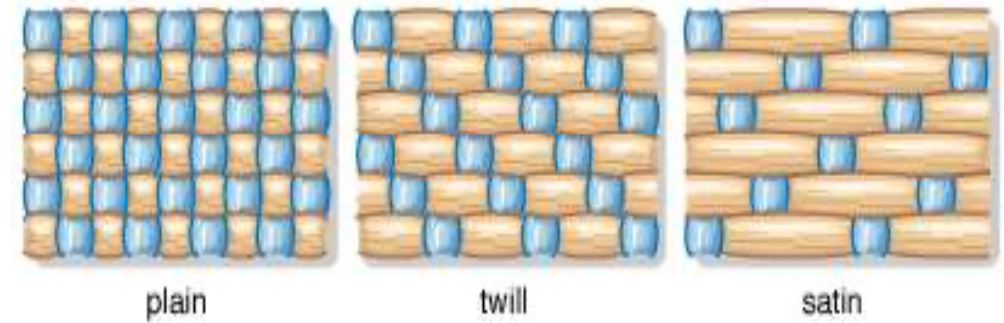
WEAVING | TECHNOLOGY & MACHINES

- There are three main types of looms from technological perspective, i.e. Projectile Loom, Rapier Loom, and Jet Loom.
- Major manufacturers of looms and other textile machinery are based in Germany, Italy, Belgium, China, and Japan.
- Major manufacturing brands include Lindauer Dornier GmbH, Toyota, Itama Group, Tsudakoma, Picanol, Shandong Tongda Textile Machinery, among others.
- Loom speed is measured in terms of Revolutions Per Minute (RPM). More advanced looms have higher RPM, resulting in higher efficiency. The RPM of latest looms from major manufacturers can reach up to ~1,500 – 2,000 RPM.
- The cost of a single loom ranges from USD 20,000 to 40,000 depending on the RPM, country and brand.
- In Pakistan, RPM of looms range from 150 to 200 in the unorganized segment. In the organized segment, it is as high as 950 RPM. Large textile mills usually invest in higher RPM capacity.
- In Organized segment, Jet looms are the most commonly used. In air jet loom, the air consumption varies from 13 to 40 litres/second.
- Almost all machinery used in the sector is imported from Europe and East Asian Countries. Further, there is a need for continuous technological BMR in order to remain competitive in the international landscape.



WEAVING | TYPES OF WEAVE

- There are 3 basic types of weave;
 - **Plain weave:** A simple alternate interlacing of warp and filling yarns.
 - **Twill weave:** Made by interlacing the yarns in a manner producing diagonal ribs, ridges, or wales across the fabric.
 - **Satin weave:** Has a sheen produced by exposing more warps than fillings on the right side of the fabric. The exposed warps are called floats.
- Other types of weave such as pile, jacquard, dobby and leno are more technical and require special looms or attachments for their production.

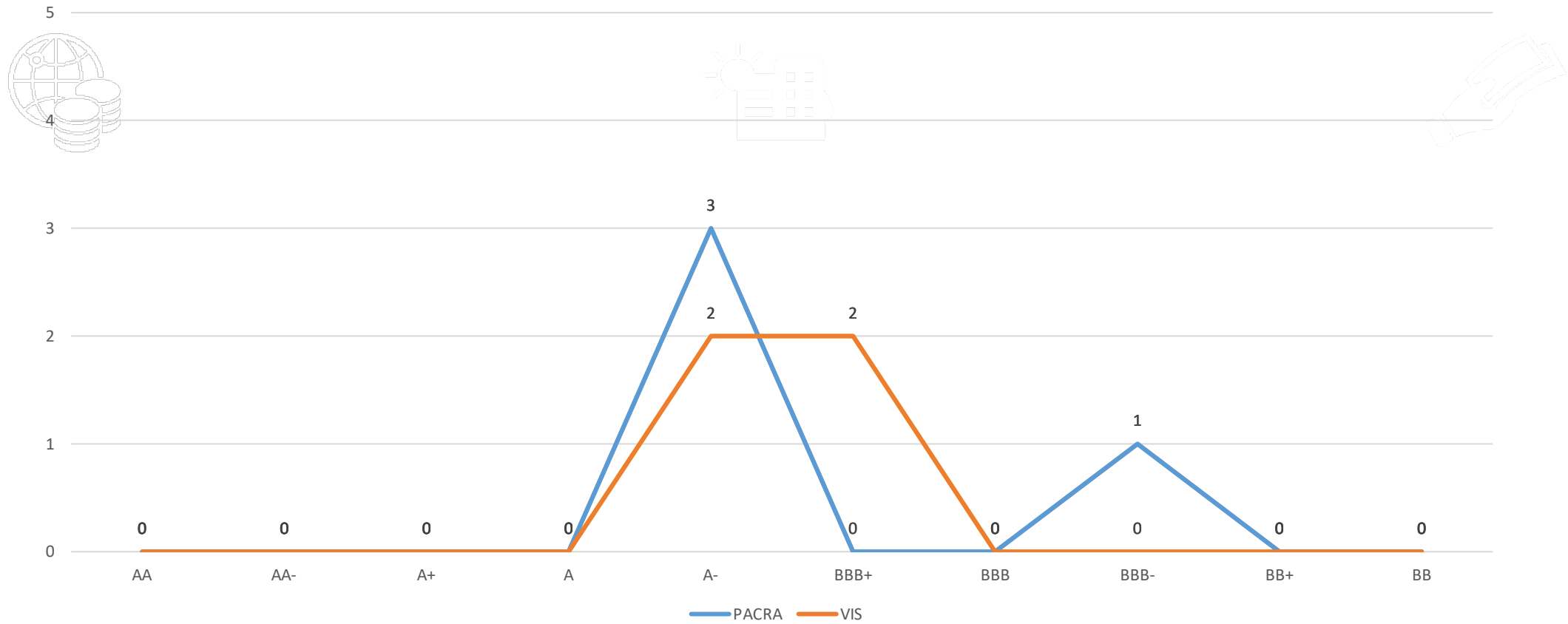


WEAVING | A BRIEF OVERVIEW

- The weaving sector is at mature stage and enjoys a rich operating history in the country.
- The weaving sector is divided into two segments, i). Organized mill segment and ii). Unorganized mill segment.
- Unorganized mill segment roughly accounts for ~90% of total weaving capacity. No conclusive figures are available on the share of each of these sub-segments in the total weaving sector. Our main focus is on organized mill segment in this sector study.
- Overall, the structure of the sector is competitive, represented by many players of different sizes making homogeneous products.
- The major export destinations for sector's products are other South East Asian, Asian & South Asian countries which utilize fabric as an input in the manufacture of finished products for export to European & North American markets. Hence, the demand for sector's products is highly dependent on demand from these markets.
- There are ~30 players in the organized mill segment in operations. Nishat Mills has the largest weaving facility in Pakistan. It has 794 modern Air Jet Looms, which produce around 11.3 million meters of fabric each year.
- The weaving segment exported cloth of PKR ~288bln in FY20 (USD ~1,830mln), representing ~15% of total textile cluster's exports. The fabric exports showed a CAGR of ~6% in last 5 years in PKR terms. The fabric exports showed a negative CAGR of ~5% in dollar terms.
- The local sales of cloth is estimated to be around PKR 550bln in FY20. Total estimated market size of the sector is PKR ~850bln.
- The weaving sector contributed an estimated 2% in the overall GDP of the country.
- Pakistan's organised mill segment produced ~934mln fabric in FY20.
- Pakistan's weaving sector exported ~2,328mln sq. meter cloth of different varieties in FY20.
- The average gross margin of the sector is ~8-10%, while average net margin is in the range of ~1-3%.

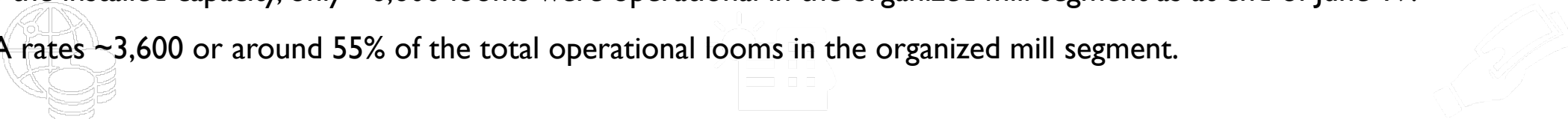
WEAVING | RATING CURVE

Weaving | PACRA Vs. VIS



WEAVING | INSTALLED CAPACITY & UTILIZATION

- There are ~9,000 looms installed in the organized mill segment of Pakistan.
- Out of the installed capacity, only ~6,600 looms were operational in the organized mill segment as at end of June 19.
- PACRA rates ~3,600 or around 55% of the total operational looms in the organized mill segment.



| Organized Mill Segment | FY16 | FY17 | FY18 | FY19 | FY20 |
|------------------------|-------|-------|-------|-------|-------|
| No. of Looms Installed | 8,188 | 9,084 | 9,084 | 9,084 | 9,084 |
| No. of Looms Utilized | 5,488 | 6,384 | 6,384 | 6,572 | 6,572 |

Notes:

- There are ~400,000 power and shuttle less looms operating within the unorganized mill segment.
- Figures for FY20 are based on our own estimates.

WEAVING | FABRIC PRODUCTION

- Weaving looms, both in organized and unorganized segment lack capacity to convert all the yarn produced in spinning mills into cloth.
- “Power Looms” have the largest share of output in cloth manufacturing.
- The output from the unorganized segment is usually of low quality.

| (000 Sq. M) | FY16 | FY17 | FY18 | FY19 | FY20 |
|--|------------------|------------------|------------------|------------------|----------------|
| Grey | 571,393 | 584,532 | 582,812 | 583,364 | 521,212 |
| Bleached | 87,852 | 75,805 | 111,110 | 114,146 | 101,985 |
| Dyed & Printed | 302,781 | 299,519 | 269,082 | 267,397 | 238,908 |
| Blended | 77,157 | 83,488 | 80,736 | 81,073 | 72,435 |
| Total Organized Mill Production | 1,039,183 | 1,043,344 | 1,043,740 | 1,045,980 | 934,540 |

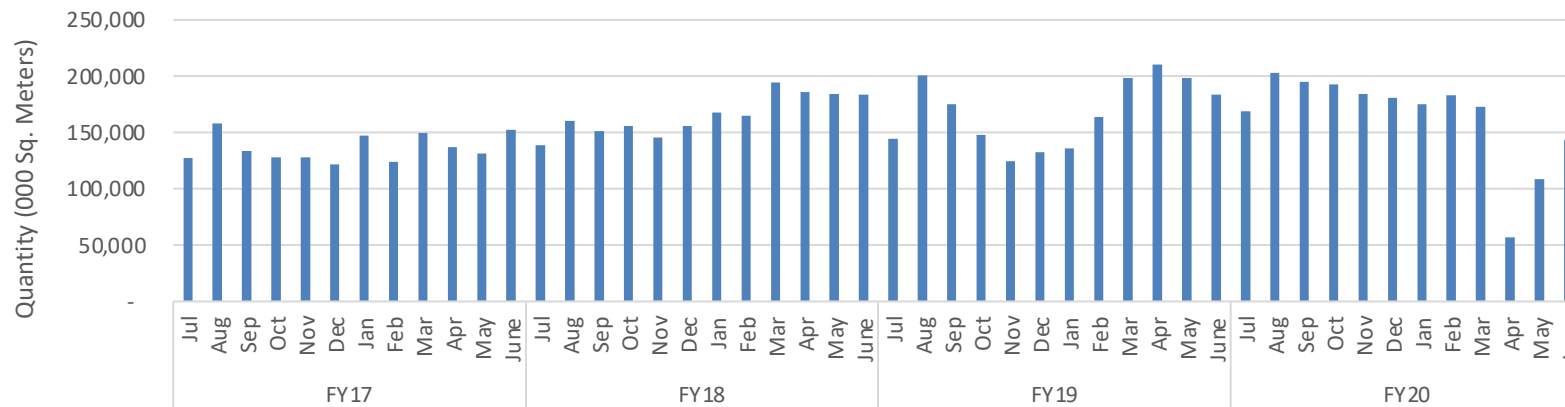
Notes:

- Production of cotton cloth by unorganized mill sector stood at ~8bln Sq. Meters.
- FY20 figures have been prorated using FY19 data and FY20 figures.

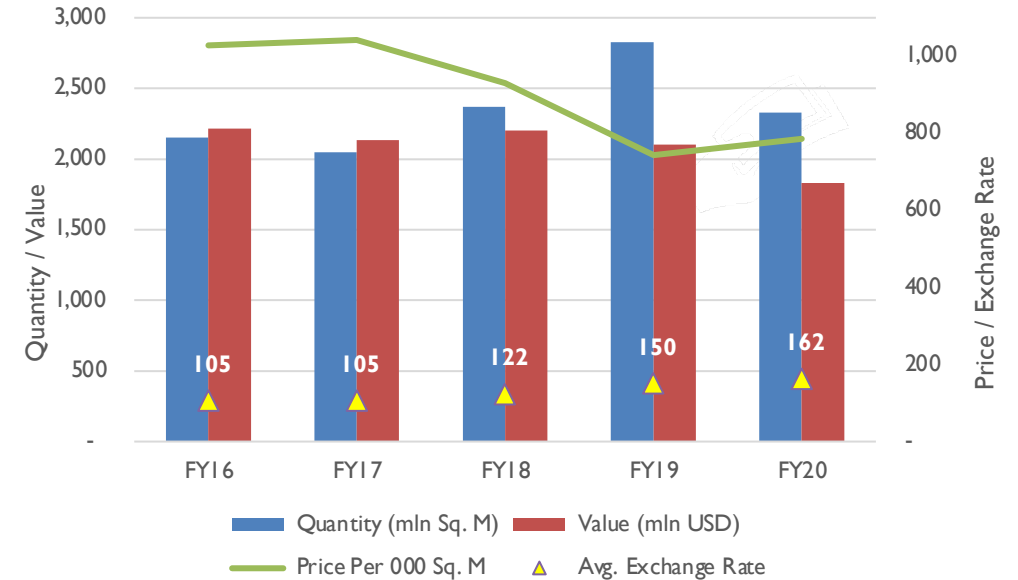
WEAVING | FABRIC EXPORTS

- Pakistan's export of cloth has shown growth in quantity in FY20.
- However, decline in per unit price has resulted in decline in dollar terms.
- Cotton cloth exports contribute ~15% of overall textile exports.
- Per unit price of cotton cloth has seen a declining trend since FY18 due to intense competition and low value addition by the sector.
- The cyclical nature of the sector can also be observed with lower exports in winter months and peak exports taking place in the March-June period.

Monthly Fabric Exports



Weaving | Fabric Exports



WEAVING | TOP EXPORT DESTINATIONS

- Around 25% of Pakistan's fabric exports are concentrated to Bangladesh, reflecting export concentration.
- Other export destinations include certain European and East Asian Countries.

| FY18 | 000 USD | % | FY19 | 000 USD | % | FY20 | 000 USD | % |
|--------------|------------------|-----|--------------|------------------|-----|--------------|------------------|-----|
| BANGLADESH | 479,254 | 22% | BANGLADESH | 482,241 | 23% | BANGLADESH | 542,839 | 30% |
| ITALY | 163,869 | 7% | ITALY | 144,842 | 7% | U.S.A | 143,866 | 8% |
| TURKEY | 162,608 | 7% | TURKEY | 125,511 | 6% | ITALY | 143,527 | 8% |
| CHINA | 122,449 | 6% | U.S.A | 112,414 | 5% | TURKEY | 123,651 | 7% |
| GERMANY | 98,956 | 4% | CHINA | 89,744 | 4% | PORTUGAL | 92,838 | 5% |
| U.S.A | 90,042 | 4% | GERMANY | 88,269 | 4% | SRI LANKA | 85,758 | 5% |
| PORTUGAL | 86,869 | 4% | SRI LANKA | 87,387 | 4% | GERMANY | 82,368 | 5% |
| SPAIN | 85,955 | 4% | SPAIN | 82,296 | 4% | NETHERLANDS | 75,942 | 4% |
| SRI LANKA | 79,169 | 4% | PORTUGAL | 78,567 | 4% | SPAIN | 75,651 | 4% |
| NETHERLANDS | 69,860 | 3% | NETHERLANDS | 75,488 | 4% | CHINA | 67,785 | 4% |
| OTHER | 764,546 | 35% | OTHER | 734,563 | 35% | OTHER | 395,668 | 22% |
| Total | 2,203,577 | | Total | 2,101,322 | | Total | 1,829,895 | |

Notes:

- FY20 figures have been prorated based on IHFY20 data

WEAVING | DUTY & SALES TAX STRUCTURE

| PCT Code | Description | Custom Duty | | Regulatory Duty | |
|----------|---|-------------|-----------|-----------------|-----------|
| | | 2019-2020 | 2018-2019 | 2019-2020 | 2018-2019 |
| 52.01 | Cotton, not carded or combed | 0% | 3% | 0% | 0% |
| 52.03 | Cotton, carded or combed | 0% | 3% | 0% | 0% |
| 52.04 | Cotton sewing thread, whether or not put up for retail sale | 16% | 16% | 0% | 0% |
| 52.05 | Cotton yarn (other than sewing thread), containing 85% or more by weight of cotton, not put up for retail sale | 11% | 11% | 10% | 10% |
| 52.06 | Cotton yarn (other than sewing thread), containing less than 85% by weight of cotton, not put up for retail sale | 11% | 11% | 10% | 10% |
| 52.07 | Cotton Yarn (other than sewing thread) put up for retail sale | 11% | 11% | 10% | 10% |
| 52.08 | Woven fabric of cotton, containing 85% or more by weight of cotton, weighing not more than 200g/m ² | 20% | 20% | 10% | 10% |
| 52.09 | Woven fabric of cotton, containing 85% or more by weight of cotton, weighing more than 200g/m ² | 20% | 20% | 10% | 10% |
| 52.10 | Woven fabrics of cotton, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibers, weighting not more than 200g/m ² | 16% | 16% | 10% | 10% |
| 52.11 | Woven fabrics of cotton, containing less than 85% by weight of cotton, mixed mainly or solely with man-made fibers, weighting more than 200g/m ² | 16% | 16% | 10% | 10% |
| 52.12 | Other woven fabrics of cotton | 20% | 20% | 10% | 10% |

| Description | | Sales Tax |
|-------------|----------|-----------|
| Raw Cotton | Imported | 5% |
| | Local | 10% |
| Yarn | Imported | 17% |
| | Local | 17% |
| Cloth | Local | 17% |

- In addition to Sales Tax, there is Advance Tax of 1% applicable on the import of these products. However, the amount of Advance Tax is adjustable against final income tax liability.

WEAVING | REGULATORY ENVIRONMENT

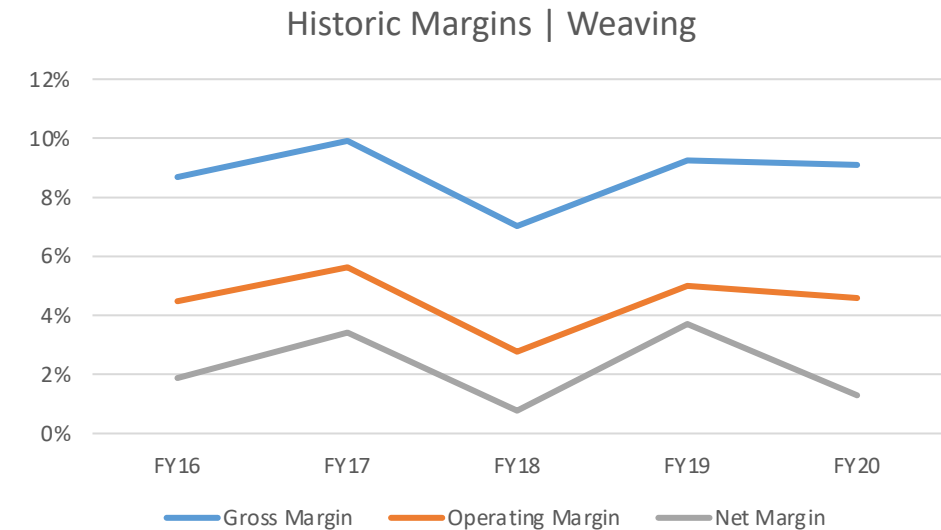
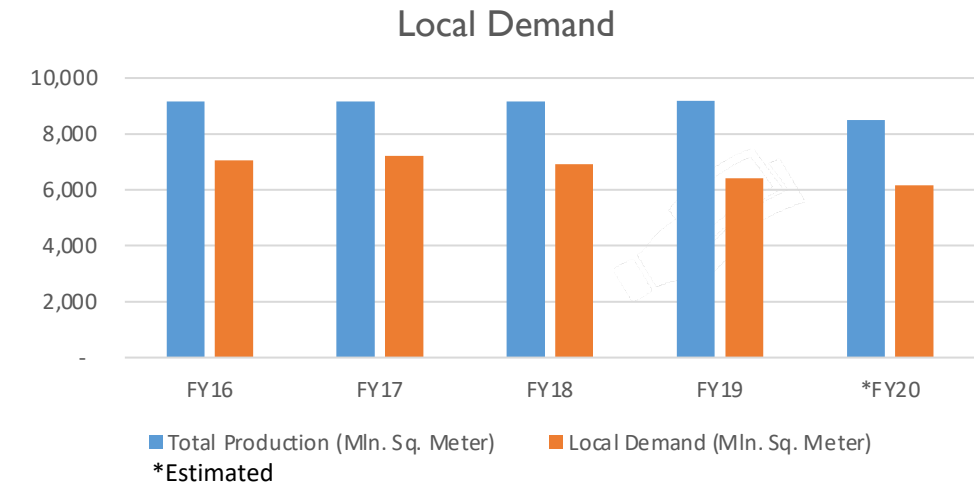
- With respect to Income Tax, the weaving sector is under the Normal Tax Regime (NTR). Further, the sector is also subject to Minimum Tax @ 1.5% of turnover, if tax liability under NTR is lower than minimum tax. However, the additional tax paid under minimum tax is adjustable against future tax liabilities for the next 5 years.
- The sector subsidized financing from SBP under the following schemes;
 - Long Term Financing Facility (LTFF) up to PKR 5bln for installation of new plant & machinery @ ~3-4%.
 - Export Finance Scheme (EFS) conditional on export of value addition fabric.
- Govt. provides subsidized electricity at USD 7.5 cents/kwh and gas at USD 6.5 /mmbtu in order to increase export competitiveness in export markets (Total impact of PKR ~40bln/annum to the textile cluster).
- Duty structure of the sector provides protection to the local sector, as depicted in duty structure table.
- Govt. also provides Drawback of Local Taxes and Levies (DLTL) at the rate of 2% on eligible product line of processed fabric (2% additional drawback is also allowable for exports to non-traditional markets).
- All Pakistan Textile Mill Association (APTMA) acts as the national trade association of textile cluster in the country.

WEAVING | BUSINESS RISK

- The business risk of the weaving sector has been divided into sales risk and operating risk (i.e. Cost structure).
 - The weaving sector's sales risk is a derivative of both export & local sales.
 - The sector is facing pressure on export demand since at least 2014 due to low value addition. However, the sector mitigated this pressure by lowering prices. This has resulted in almost stagnant exports in dollar terms, although exports increased steadily in quantity terms over these years. The demand was further impacted during the COVID-19 pandemic and subsequent lockdowns. On the other hand, the demand for local sales remained stable over the years.
 - The prices of the fabric in export markets declined by ~37% in the last 5 years and clocked in at USD ~0.79/ sq. meter (USD ~1.25/ sq. meter in FY15).
 - The gross and operating margins of the sector remains low, reflecting low value addition by the sector.
 - The cost structure of weaving sector is mostly variable with ~80-85% variable cost. However, the prices of yarn, which represent ~63% of total cost of goods sold, has increased by ~60-80% in last 5 years.
 - Overall, the business risk of the weaving sector remains high on the back of declining export prices and higher cost of raw material, and resultantly, thin margins.
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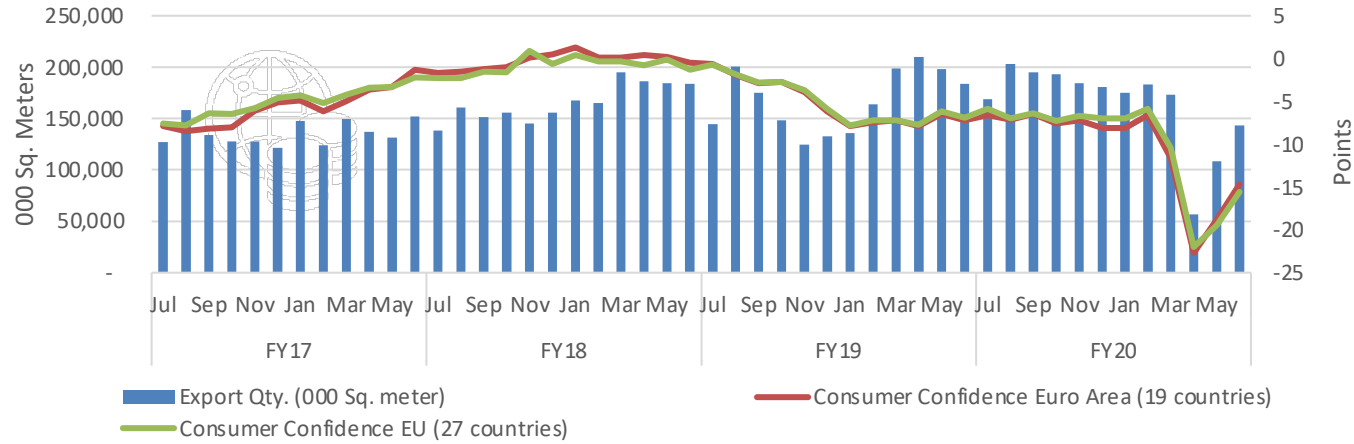
WEAVING | SALES RISK – LOCAL DEMAND

- The local demand of the country is mostly catered by the unorganized segment. The organized segment is mainly export oriented.
- The local demand has shown a negative CAGR of ~2.5% over the last four years.
- The sales demand remained relatively flat over the last 5 years except FY20 where demand impacted due to COVID-19 lockdown.
- The gross and operating margins of the weaving sector remains low, reflecting low value addition by the sector.
- In conclusion, the sales risk of the local demand is moderate on the back of low value addition, and hence, lower margins.

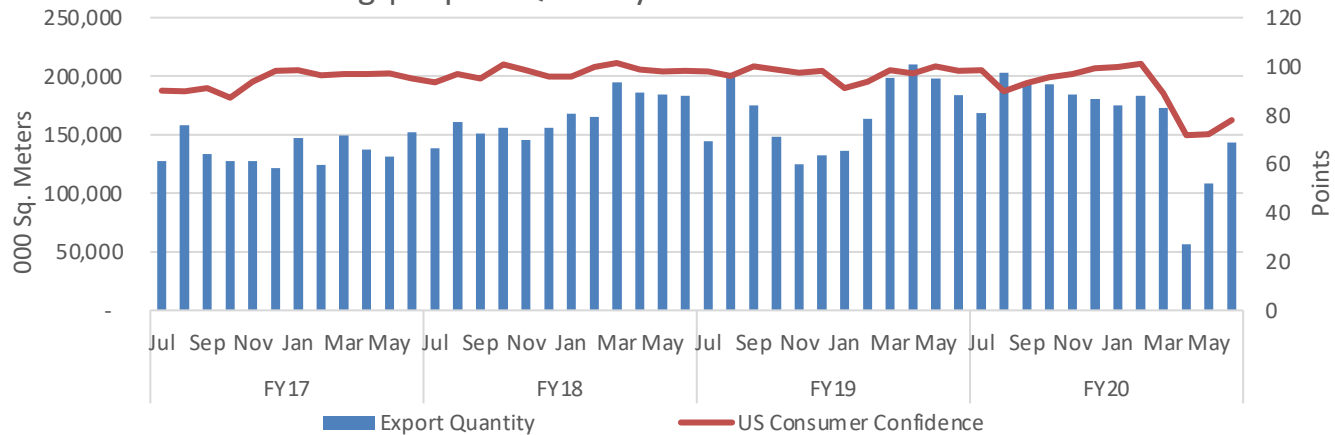


WEAVING | SALES RISK – EXPORT DEMAND

Weaving | Export Quantity vs EU Consumer Confidence



Weaving | Export Quantity vs US Consumer Confidence

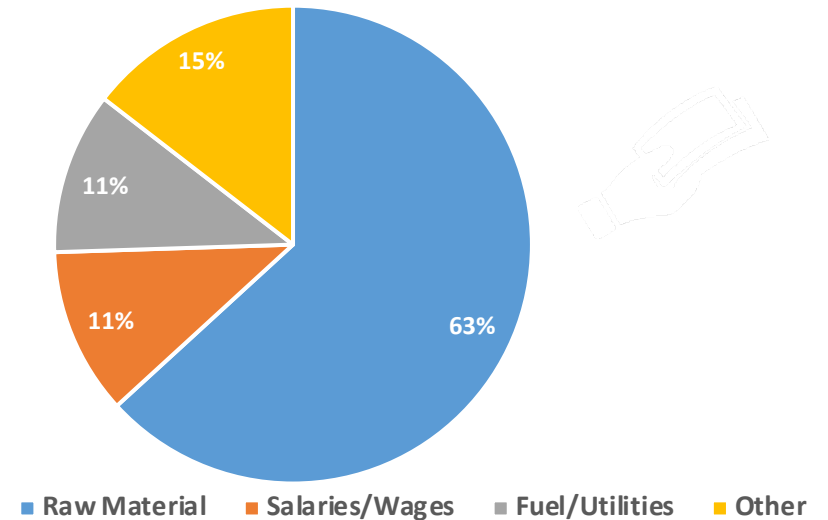


- Demand for the weaving sector is derived from international clothing and textile brands largely based in Europe and North America.
- The adjacent graphs compare the monthly fabric export quantity with EU & US Consumer Confidence Indices.
- The graphs show positive correlation between Consumer Confidence in these markets with quantity exported.
- The consumer confidence is volatile, especially in the case of EU consumers. However, the US consumer confidence is relatively more stable which is also the largest market.
- Declining prices of fabric in export markets coupled with demand correlation with consumer confidence shows increasing sales risk for export demand.

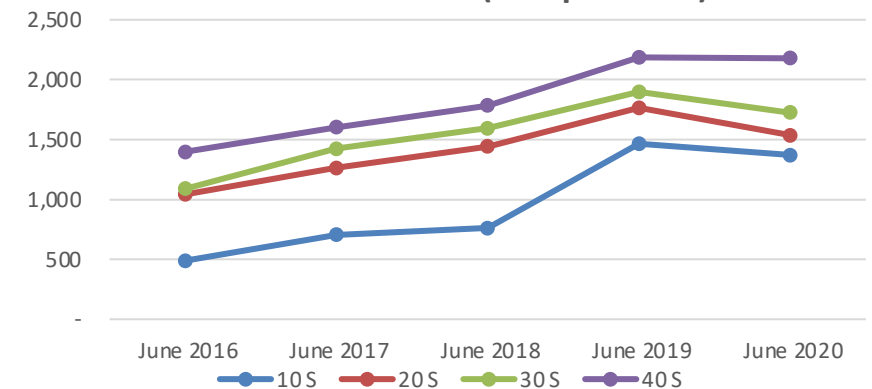
WEAVING | COST STRUCTURE

- The cost structure of weaving sector is mostly variable with ~80-85% variable cost. Resultantly, the sector has low operating leverage.
- On average, the sector spends ~63% of its total production costs on raw material, i.e. yarn.
- The prices of yarn have shown significant increase (~60-80%) over the last four years, reflecting increasing cost pressure.
- Other major costs include Salaries and Wages as well as Fuel and Utilities which both consist of ~11% of the total production cost.
- Remaining ~15% is attributable to other costs such as depreciation, repairs, maintenance, insurance, packing and chemicals.

Weaving | Cost Breakdown



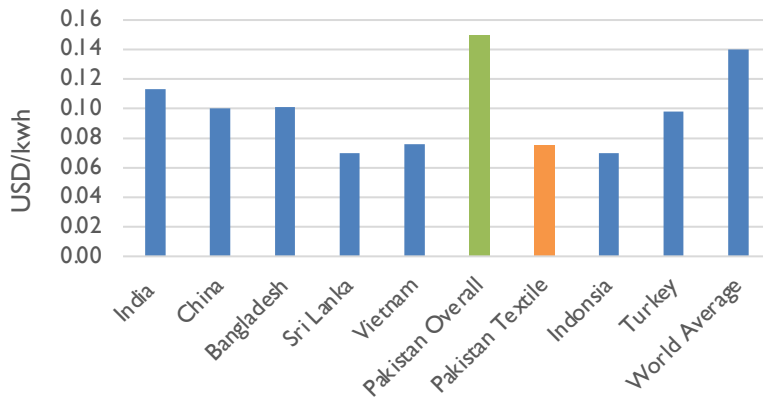
Cotton Yarn Prices (PKR per 10 lb)



WEAVING | REGIONAL COST COMPARISON

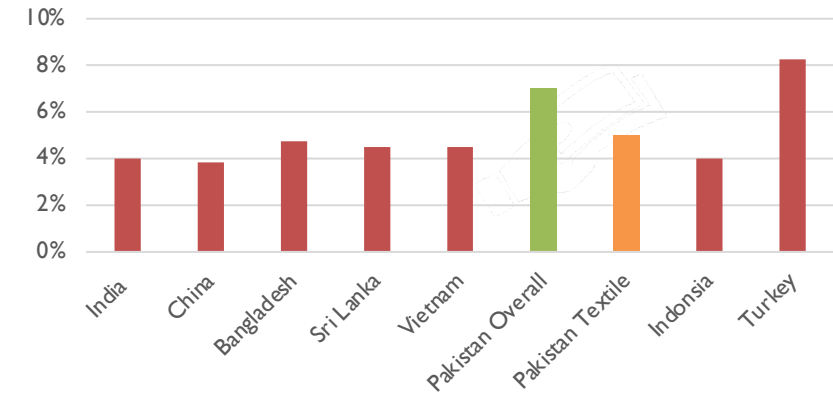
- Pakistan has the second highest interest rate in the region behind Turkey. The high cost of borrowing acts as a barrier to investment in the country. In contrast, China has the lowest borrowing rate. However, the SBP provides subsidized financing at internationally competitive rates to the textile cluster.
- The Pakistani businesses face competitive disadvantage due to the high electricity tariffs it incurs which exceed all regional players. However, the government provides subsidized electricity and gas at internationally competitive prices to the textile cluster. In contrast, Sri Lanka and Indonesia have to the lowest electricity tariffs in the region.

Electricity Tariffs

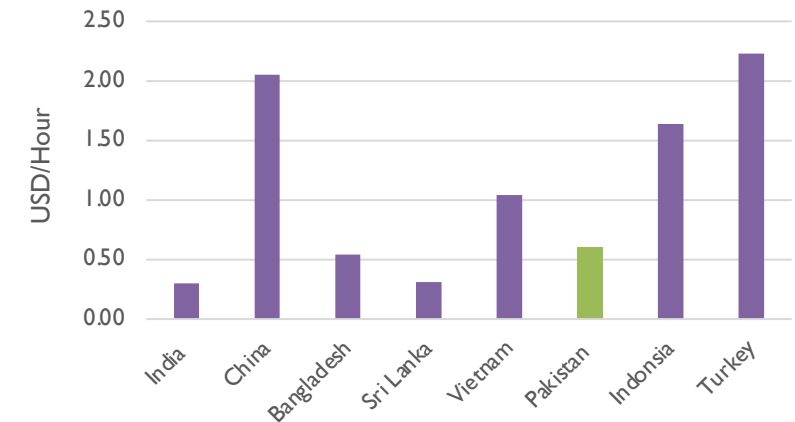


- Pakistan's minimum wage translates to 0.6 USD per hour which is higher than countries such as Sri Lanka, Bangladesh and India. However, we maintain competitive advantage of low labor cost over regional players China, Vietnam, Indonesia and Turkey.

Interest Rates



Minimum Wage Rates



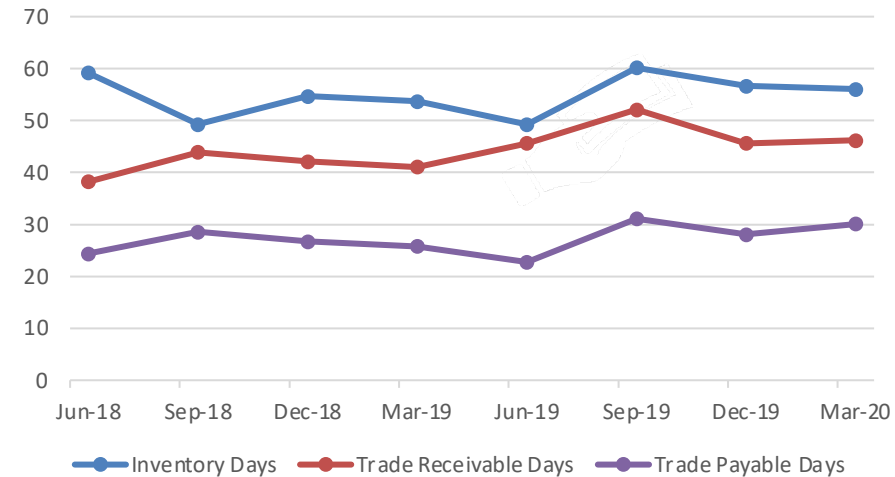
WEAVING | FINANCIAL RISK

- Overall, the weaving sector is moderately to highly leveraged with average sector's borrowings of ~60% of total capital structure.
- Total borrowings of the weaving sector stood at PKR ~135bln as at 30th June 2020. Around 55% of the total borrowings of the sector are utilized at SBP's subsidized rates.
 - PKR ~33bln of LTFF financing at end-July 20;
 - PKR ~41bln of EFS as at end-July 20.
- Most of the borrowings (~65%) constitute short-term borrowings utilized to finance the working capital requirements.
- Total banking advances to the textile cluster is PKR ~1.2tln as at end-June 20 with infection ratio of 14.7% (~10% for overall corporate advances).
- In conclusion, although most of the borrowings have been utilized at subsidized rates and greater proportion of short-term borrowings in overall financing mix, weaving sector has high financial risk as reflected in significantly higher infection ratio.

WEAVING | WORKING CAPITAL MANAGEMENT

- Like most manufacturing clusters, the largest component of working capital of the weaving sector is inventory.
- Inventory consists mostly of raw material and finished goods while work-in-process makes only a small contribution.
- Many players within the organized mill sector are backwards and/or forwards integrated resulting in more efficient working capital management and ease of procurement of raw material.
- The adjacent graph shows the sector's average working capital cycle over the last eight quarters.
- The sector's average inventory days are ~55 days.
- The sector's average trade receivable days are ~44 days while the average trade payable days stand at ~27 days. The cycle for both receivables and payables peaks during the first quarter of each fiscal year.
- The sector meets its working capital financing requirements through short term borrowings.

Industry Average Working Capital Cycle



WEAVING | IMPACT OF COVID-19

- The demand for exports is highly dependent on demand from European & North American markets. Since the spread of COVID-19 and subsequent impositions of countrywide lockdowns, major brands in USA and Europe had shut down retail operations resulting in orders on hold or cancellation.
 - Local demand was also impacted negatively during 4QFY20 on the back of countrywide lockdowns. The businesses also missed peak demand seasons of Eids which represent ~35-40% of total local demand.
 - The sector is dependent on imports for supply of synthetic fibers, chemicals and dyes. The lockdowns disrupted global supply chains. However, businesses carried sufficient inventories of ~2-3 months which provided time to re-establish supply chains.
 - Despite being exempted from restrictions, the capacity utilization of weaving sector remained sub-optimal on the back of labor shortages and supply chain issues.
 - Lower demand and higher inventory levels resulted in liquidity and cash flow issues.
 - The demand is recovering since July subsequent to the easing of restrictions both in Pakistan and major demand destinations (USA & Europe).
 - The lockdowns provided the necessary impetus towards online sales.
-

WEAVING | RELIEF MEASURES – COVID-19

- In order to relieve liquidity pressure on the sector, the SBP allowed to defer principal repayments for one year to the corporate sector. Further, the SBP also allowed to restructure their loans up to 30th June 2020.
- The SBP, over the course of 4/5 months, reduced benchmark rate by 625bps to 7%. This is expected to improve the bottom-line of the sector. However, the impact will be limited due to the fact that majority of the borrowings utilized at subsidized rates.
- In addition, the Securities & Exchange Commission of Pakistan (SECP) provided several regulatory reliefs to the companies on a proactive basis during lockdown.

WEAVING | SWOT ANALYSIS

- Strong local cotton production & yarn industries
- Strong support from government and SBP
- Low cost labor
- Mature and long-standing textile sector
- Strong sector association resulting in high lobbying power
- Recent PKR depreciation leading to improved international competitiveness

Strengths

- Imported machinery
- Low BMR resulting in technological obsolescence
- Low value addition/commodity product
- Dollar based input costs leads to thin margins as a result of inefficiencies
- Import duty on yarn leads to lower control over input cost
- Lower focus on man-made fibers

Weaknesses

- Geographical export concentration
- Intense competition from regional players in international market
- Strong bargaining power of buyers
- Interdependency on demand from developed markets
- Withdrawal of tax credits for expansion and replacement has hindered new investments

Threats

- Forward and horizontal integration can be used to produce value added and differentiated product
- Opportunity to increase efficiency through technological upgrade
- Special Economic Zones provide incentives to sector

Opportunities

WEAVING | CONCLUSION

- The absence of value addition, minimal investment in new technologies and relatively lower economies of scale have impacted the position of the sector in international markets in the preceding decade.
 - The installed capacity and production of the sector remained almost stagnant over the last several years. Despite increase in export quantity, exports of the sector remained stagnant in dollar terms in last two years.
 - The sector has not fully capitalized on strong local supply chain, government policy support, depreciating rupee, and financial support in the form of subsidized financing from SBP and subsidized energy prices.
 - Although margins and profitability of the sector have improved in recent years, it largely remains a factor of gains on rupee depreciation. The sector has not been able to gain much in terms of volumes.
 - The sector has moderately to highly leveraged capital structure on the back of lower ability to generate operating cash flows amid squeezing margins. Although sector avails a significant portion of its borrowings at subsidized rates, the infection ratio of the sector is significantly higher than overall corporate sector infection ratio, reflecting financial risk.
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WEAVING | GOING FORWARD EXPECTATIONS

- Without any significant investments on new technology, it is expected that weaving will continue to operate as a low value addition and relatively low margin sector. The recent BMR activities spurred by SBP LTTF schemes is a good sign and should contribute towards higher production quality.
- The sector remains reliant on the government support as it is a price takers on both ends.
- The sector is expected to face increasing competition from other regional players in the international markets. This may result in increasing pressure on export margins.
- *The financial risk of the sector is expected to increase as the sector utilize additional borrowings to cover its cash flow needs amid its low ability to generate sufficient cash flows from operations.*

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- Trading Economics
- State Bank of Pakistan (SBP)
- Statista.com
- Globalpetrolprices.com
- Eurostat
- University of Michigan

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