



Paper & Packaging An Overview

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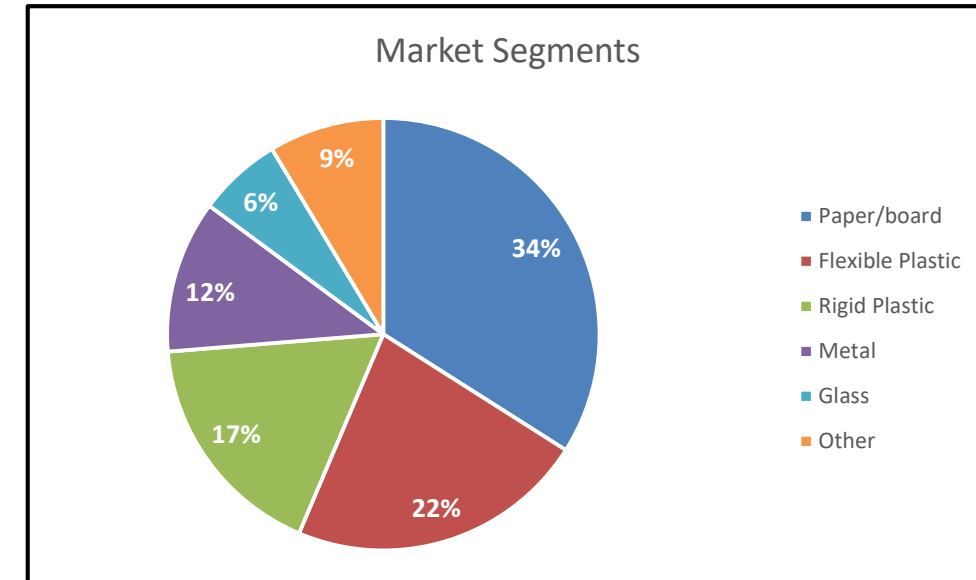
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- Packaging refers to the enclosing or protecting of goods for the purpose of distribution, storage, sale and use.
- The packaging industry is mostly segmented according to the type of material used:
 1. Paper & Cardboard:
Includes cartons, corrugated boxes, bags and paper sacks.
 2. Plastic:
Includes PET bottles, plastic boxes, plastic films such as BOPP film, CPP film & BOPET film, and flexible packaging such as plastic bags, pouches etc. Plastic packaging can also be segmented as flexible or rigid depending on the materials characteristics.
 3. Metal:
Includes cans, foils and drums made from materials such as tinplate and aluminum.
 4. Glass:
Includes glass bottles and jars.



Overview

- The estimated market size of the global packaging industry stood at USD~917bln in 2019 (2018: USD~891bln).
- The industry is expected to witness a growth in 2020-2021 of ~10% partially attributable to the greater demand for plastic packaging in healthcare and pharmaceutical industries due to the spread of COVID-19 pandemic.
- There had already existed a growing market for food packaging, including delivery and takeaway packaging due to the increase in global urbanization, fast-paced consumer lifestyles and adoption of e-commerce. The COVID-19 pandemic and resulting restrictions may lead to further increase in demand from these sectors.
- Greater consumer awareness regarding the harmful environmental impact of plastic packaging may create challenges for the industry. Various regulations have already been implemented such as the ban on single use plastics in various countries. As a result, the industry is moving towards more innovative and environmentally friendly packaging solutions.
- The largest segment within the global industry is paper and board which occupies ~34% of the market. Flexible plastic and rigid plastic have market shares of ~22% and ~17%, respectively. Metal occupies ~11% of the total market while glass has a market share of ~6%.



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Overview

- Pakistan’s packaging industry has an approximate size of USD~5.53bln (PKR~897bln) in FY20 as compared to USD~5bln (PKR~750bln) in FY19.
- The local packaging industry consists of four major segments, paper, plastic, tinplate and glass. Paper and plastic segments occupy the major share in total market, while other materials such as tinplate and glass have relatively smaller size.

Segment	Paper	Plastic	Tinplate	Glass
Types	Paper & Board	PET bottles and CPP, BOPP & BOPET film	Tinplate	Glass
Demand	Used in a large variety of retail and consumer products	PET bottles: Beverages & Pharmaceuticals Film: Consumer goods such as snacks and confectionery items	Edible Oil, Ghee, Canned Food & Paints	Mainly used for glass bottles in beverage & pharmaceuticals

- The size of the PET bottle segment is estimated to be PKR~33,028mln in FY20 as compared to PKR~42,723mln in FY19.
- In the tinplate packaging sector, as there is only one local manufacturer, approximately 70% of the demand is met through imports which stood at USD~33mln (PKR~4,961mln) during 2019.

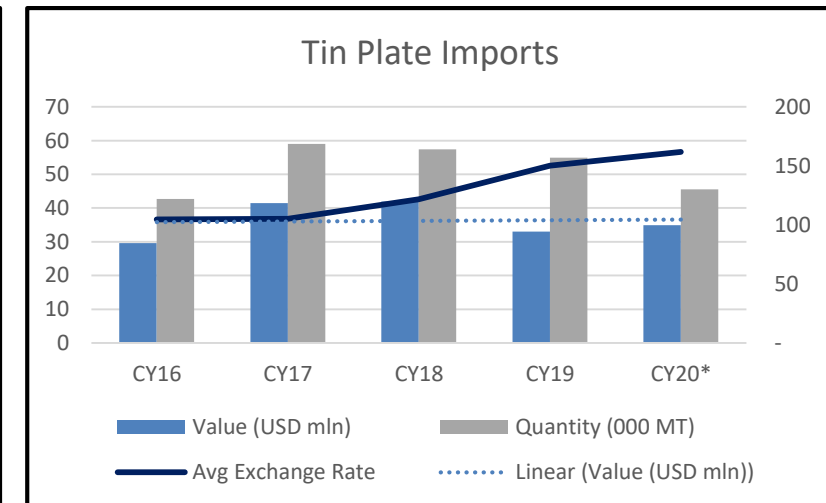
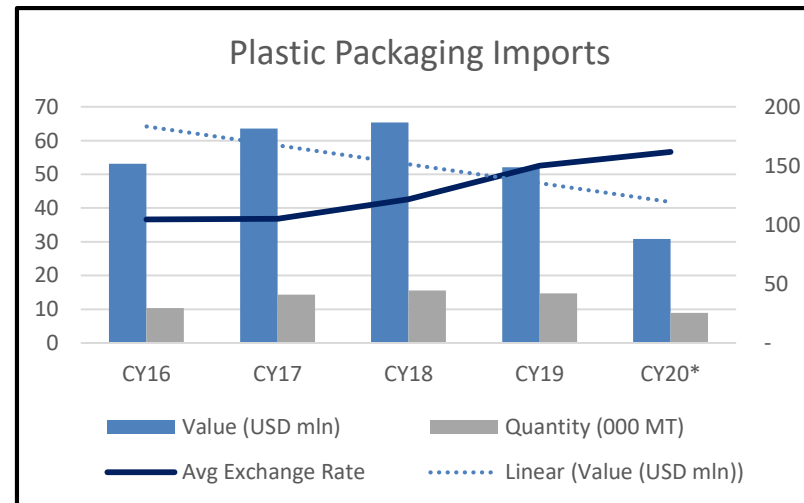
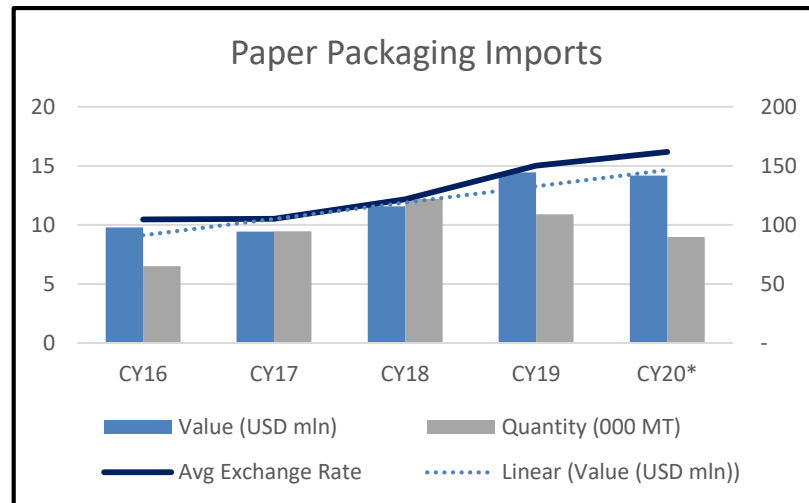
Market Structure:

- The industry consists of several private players along with a few listed players. There are 12 listed players, 6 of whom are operating solely within plastic packaging, 1 operates in tinplate packaging and the remaining 5 operate within the paper packaging segment.

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Imports

- PAPER:** The imports of paper and board packaging products has grown consistently since CY16 with a CAGR of ~10%. During CY19, the imports stood at USD~14mIn (PKR~2,172mIn) as compared to USD~12mIn (PKR~1,407mIn) in CY18.
- PLASTIC:** Similarly there was a decline in imports of plastic packaging during CY19, which clocked in at USD~52mIn (PKR~7,827mIn) as compared to USD~65mIn (PKR~7,944mIn) during CY18.
- TINPLATE:** Meanwhile, imports of tinplate clocked in at USD~33mIn (PKR~4,961mIn) during CY19 as compared to USD~42mIn (PKR~5,102mIn) during CY18. This decline, in USD terms, of ~21% was a result of anti-dumping duty imposed by the National Tariff Commission during the year on imports from China, South Africa, USA and the European Union.
- There has been considerable YoY decline in overall packaging imports during 1QCY20 with the most significant reduction of ~42% in plastic imports as compared to same period last year.



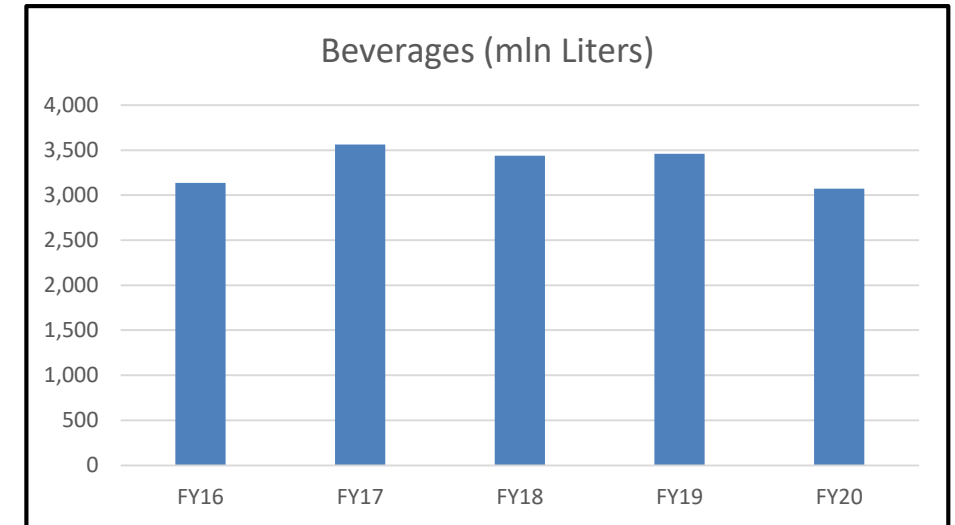
*CY20 figures are prorated based on 1QCY20 data



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Business Risk | Plastic

- The packaging industry derives its demand from various industries. One of the major sources of demand for plastic packaging is the food and beverage industries. The food and allied industries had exemption from the lockdown imposed during early stages of the COVID-19 pandemic and as a result operational activities were not disrupted. However, demand for non-essential food and beverage items suffered which translated into lower demand for packaging products.
- The adjacent graph shows production levels of beverages in the last five fiscal years. Beverage production has declined by ~11% in FY20 after having relatively consistent level of production in prior years.
- The price of major raw material in plastic segment is correlated to international oil prices and therefore, volatility in oil prices and exchange rates is a significant source of risk.
- Moreover, many beverage players have set up their own bottling plants and only purchase PET Preform from the market. Therefore, margins are likely to be under pressure as Preform is a comparatively low margin product.
- In recent years there has been greater concern regarding usage of plastic due to environmental factors. The government has also introduced a ban on single use plastic, however, this is not strictly enforced. Moreover, a suitable alternative does not exist as the local industry has limited innovation and is slow to adopt environmentally friendly practices.



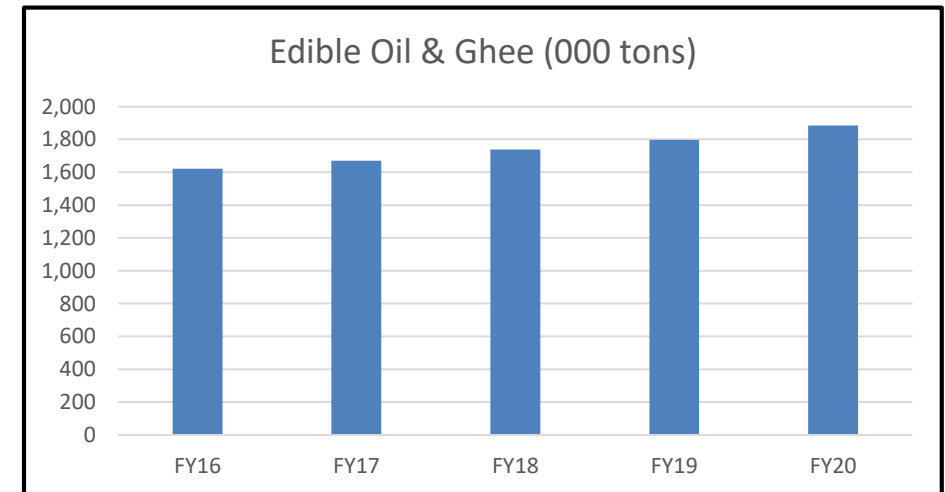
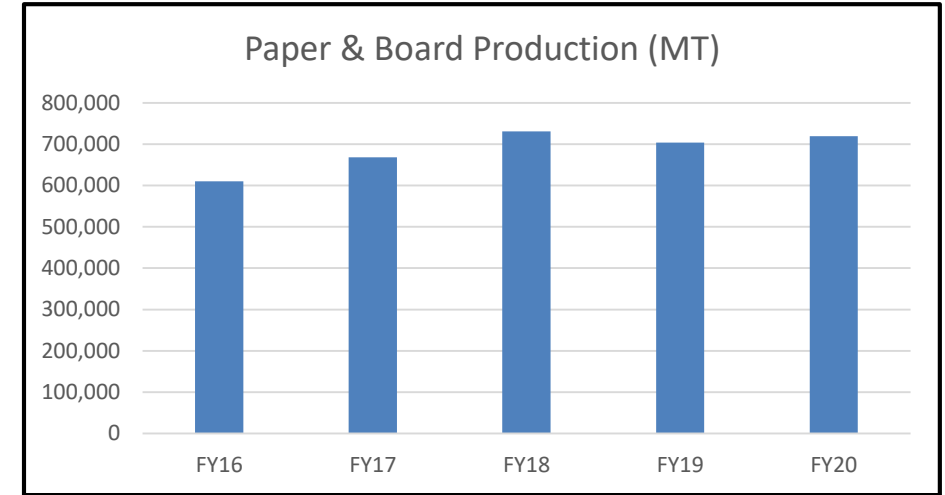
Revenue Estimate of PET Preform & Bottles

	FY16	FY17	FY18	FY19	FY20
Anticipated Demand for Bottle Beverage Industry (Mln Units)	3,065	3,537	3,872	4,825	4,302
Expected Growth Rate	-	15%	9%	25%	-11%
PREFORMS					
Outsourced Preform Market (Mln units)	2,518	2,917	3,195	4,107	3,657
Weighted Average PET Resin Rate per KG	112	115	149	180	156
Average Preform Size (Gms)	35	35	35	35	35
PET Resin cost per Preform (PKR)	3.87	4.02	5.25	6.30	5.46
Average Fabrication Price per Preform (PKR)	1.35	1.34	1.51	2.10	1.82
Total Price per Preform (PKR)	5.22	5.36	6.76	8.40	7.28
Total Revenue of Preform Market (PKR mln)	13,144	15,635	21,598	34,499	26,622
BOTTLES					
Outsourced Bottle Market (Mln Units)	547	620	677	718	645
Weighted Average PET Resin Rate per KG	112	115	149	180	156
Average Bottle Size (Gms)	35	35	35	35	35
PET Resin Cost per Bottle (PKR)	3.87	4.02	5.25	6.30	5.46
Average Fabrication Price per Bottle (PKR)	6.73	6.87	5.83	5.15	4.47
Total Price per Bottle (PKR)	10.60	10.89	11.08	11.45	9.93
Total Revenue of Bottle Market (PKR mln)	5,798	6,752	7,501	8,224	6,406

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Business Risk | Paper & Tinplate

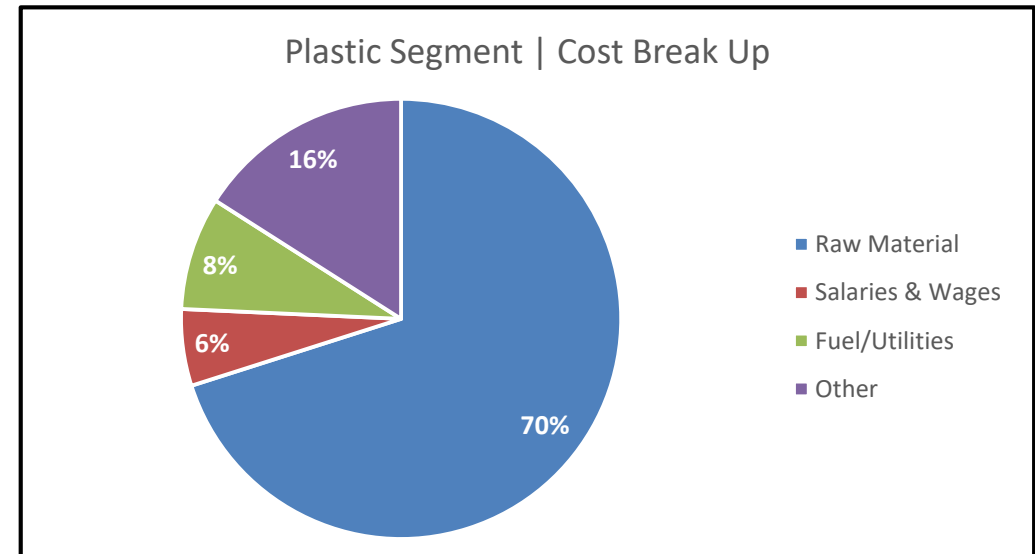
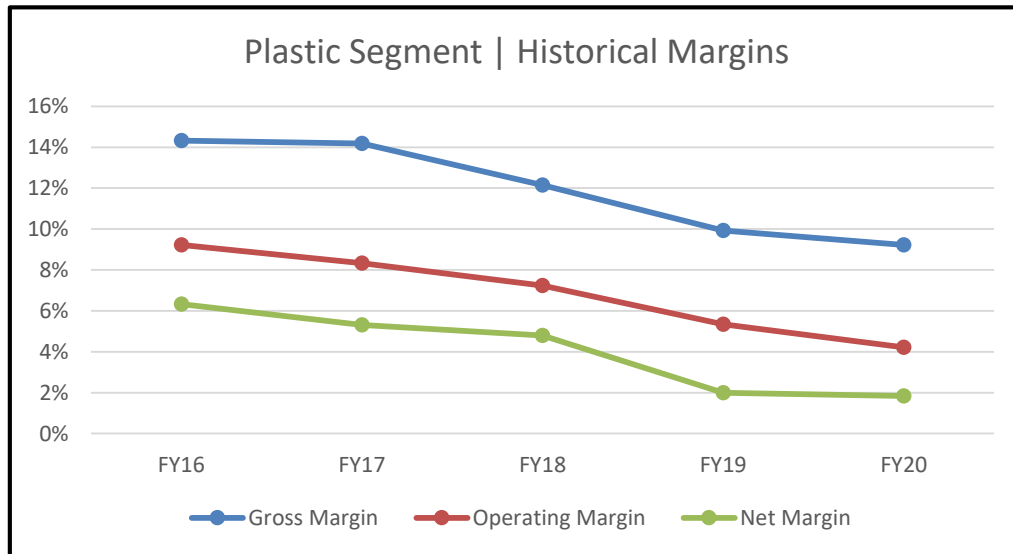
- The paper packaging segment has remained relatively stable in recent years. Despite the economic slowdown caused by the COVID-19 pandemic, demand for the segment remained relatively consistent as it falls in the supply chain of various essential products and industries.
- The adjacent graph shows production levels of paper and board for the last five years which have experienced a CAGR of ~3% in the period. Moreover, consistent levels of production can be observed since FY18. This reflects on the stability of paper packaging segment as it makes up a significant portion of overall paper and board production.
- One of the major sources of demand for the tinplate packaging segment is edible oil and ghee industries. The adjacent graph shows production levels of edible oil and ghee in the last five fiscal years. The production of edible oil and ghee has increased steadily over the period with a CAGR of ~3%.
- There is only one local tinplate manufacturer in Pakistan that faces stiff competition from import market. The government has imposed anti-dumping duty on the import of tinplate from China, South Africa, EU & USA which has provided some protection to local manufacturer.
- However, application of anti-dumping duty on the raw material, CRC, has further damaged competitiveness by increasing costs. Moreover, alternate sources of raw material are not reliable in terms of quality.



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Margins & Cost Structure | Plastic

- The segments's direct costs consist largely of imported raw materials (~70%). Therefore, volatility in exchange rates and international price trends has an impact on costs.
- The average margins of the plastic packaging segment have observed a declining trend since FY16, with average gross margins falling from ~14% in FY16 to ~9% in FY20. In addition, net margins fell from ~6% in FY16 to ~2% in FY20. This is due to rising raw material costs which many small players struggle to pass on in a timely manner. In addition, many beverage players have begun to set up their own bottling plants and are only buying PET Preforms from the market. Since PET Preforms are a lower margin product as compared to bottles the industry has witnessed a decline in margins.
- In addition, rising interest rates have increased pressure on margins. However, the recent rate cut of 625bps should provide some relief.

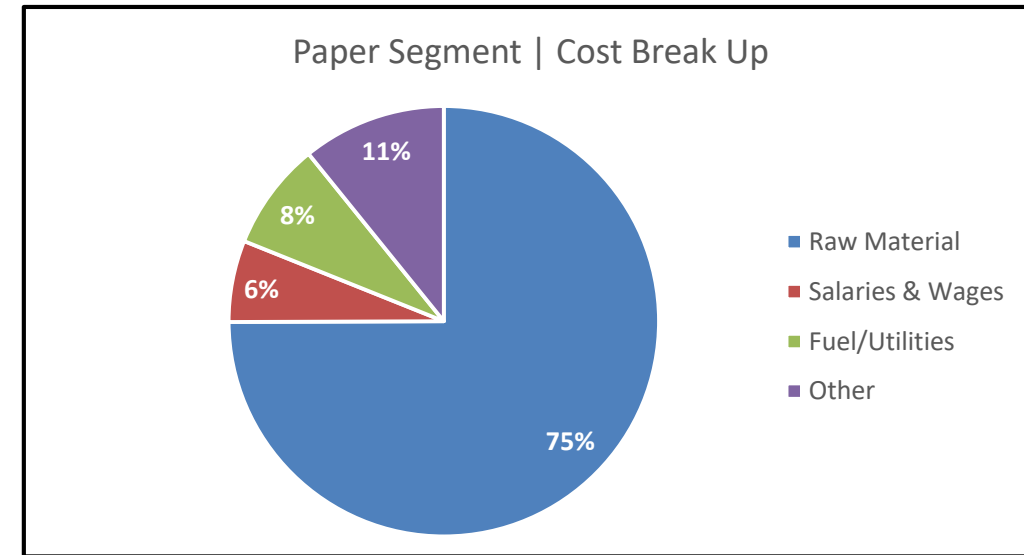
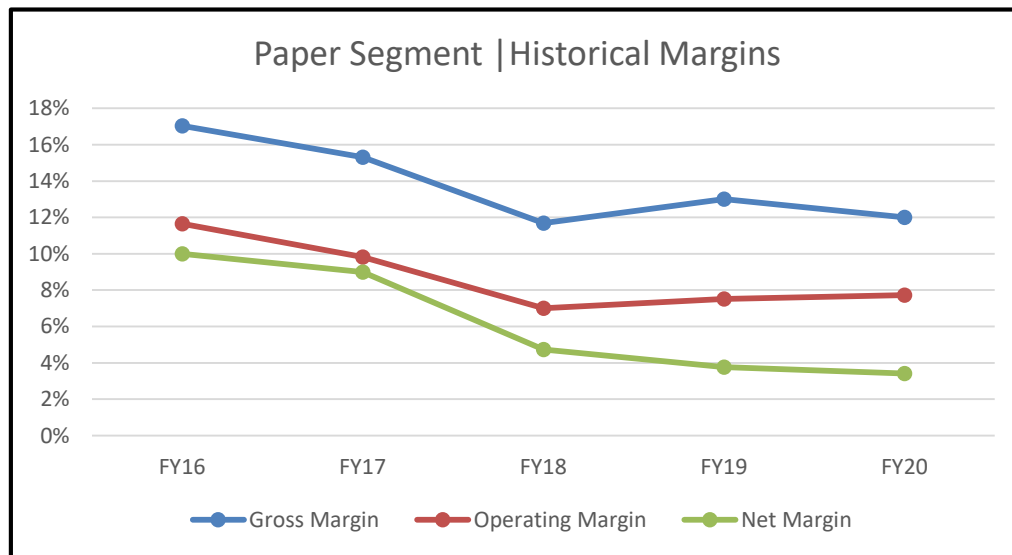


*Cost break up and margins are representative of 6 listed companies

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Margins & Cost Structure | Paper

- The segments's direct costs consist largely of imported raw materials (~75%). Therefore, volatility in exchange rates and international price trends has an impact on costs.
- The average margins of the paper packaging segment have observed a declining trend since FY16, with average gross margins falling from ~17% in FY16 to ~12% in FY20. In addition, net margins fell from ~10% in FY16 to ~3% in FY20. This is attributable mostly to the rising cost of sales. In addition, rising interest rates have increased pressure on margins. However, the recent rate cut of 625bps should provide some relief.

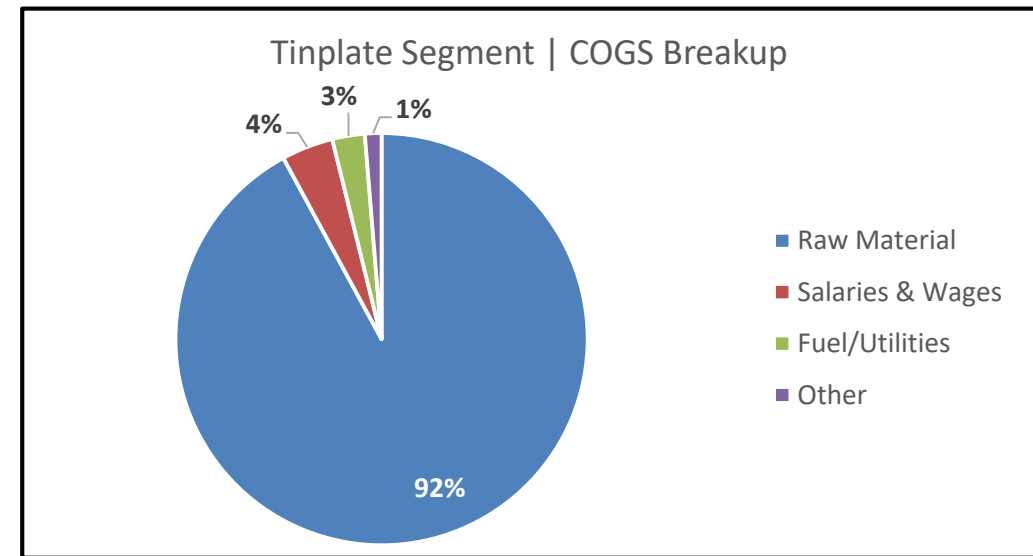
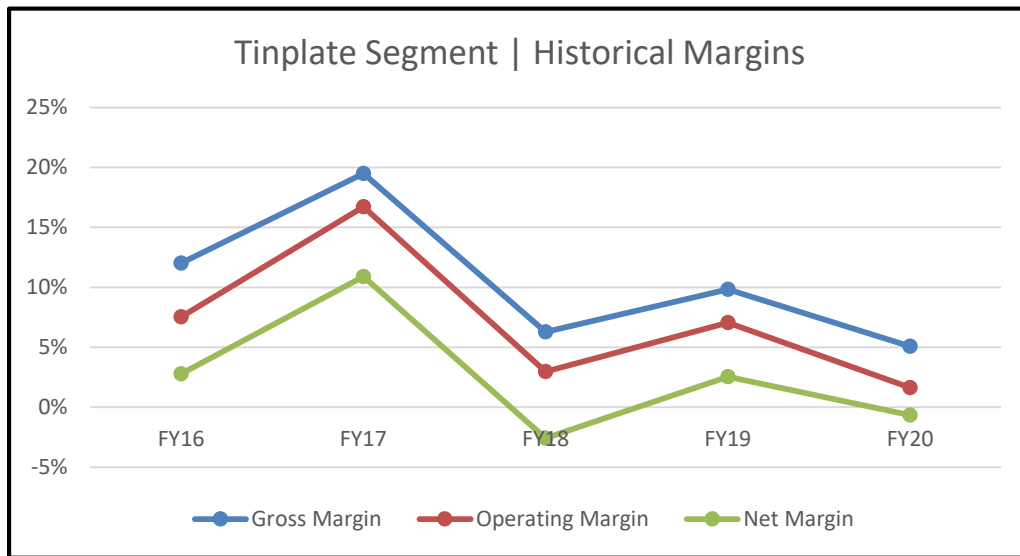


*Cost break up and margins are representative of 5 listed companies

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Margins & Cost Structure | Tinplate

- The vast majority of the tinplate segments' direct costs consist largely of imported raw materials (~92%). Therefore, volatility in exchange rates and international price trends of CRC has a significant impact on costs.
- The average margins of the segment have observed a volatile trend in the last five years, with average gross margins falling from ~12% in FY16 to ~5% in FY20. In addition, net margins fell from ~3% in FY16 to -1% in FY20. This is attributable in large part to fluctuations in raw material prices as well as the imposition of anti-dumping duty on CRC imports.
- In addition, rising interest rates have increased pressure on margins. However, the recent rate cut of 625bps should provide some relief.

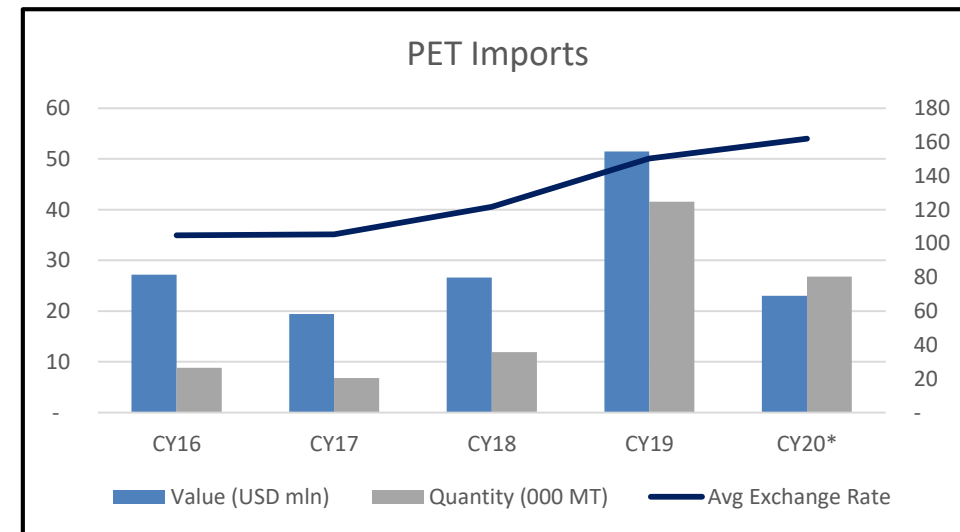
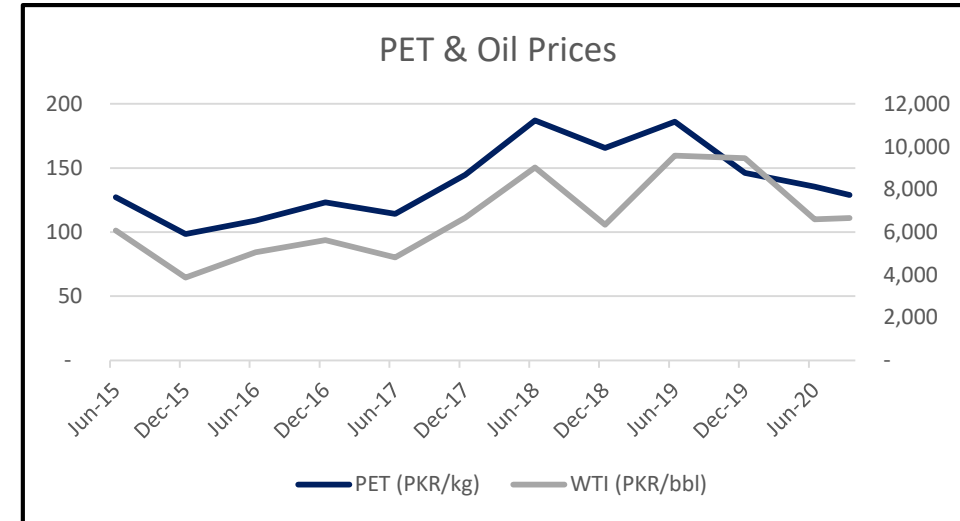


*Cost break up and margins are representative of 1 listed Company.

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Raw Materials | Plastic

- One of the main raw materials in producing plastic bottles, films and other plastic packaging is PET Resin. It is produced from derivatives of crude oil and as seen in adjacent price graph, the prices follow a similar trend.
- Oil prices have recently been on a declining trend, specially after the COVID-19 pandemic. This bodes well for the plastic packaging industry as it has reduced raw material prices and resultantly eased some pressure on margin.
- The import of PET Resin increased significantly from USD~27mIn (PKR~3,232mIn) in CY18 to USD~51mIn (PKR~7,729mIn) in CY19.
- Pakistan is almost entirely reliant on imports of PET Resin as there is only one major local supplier.



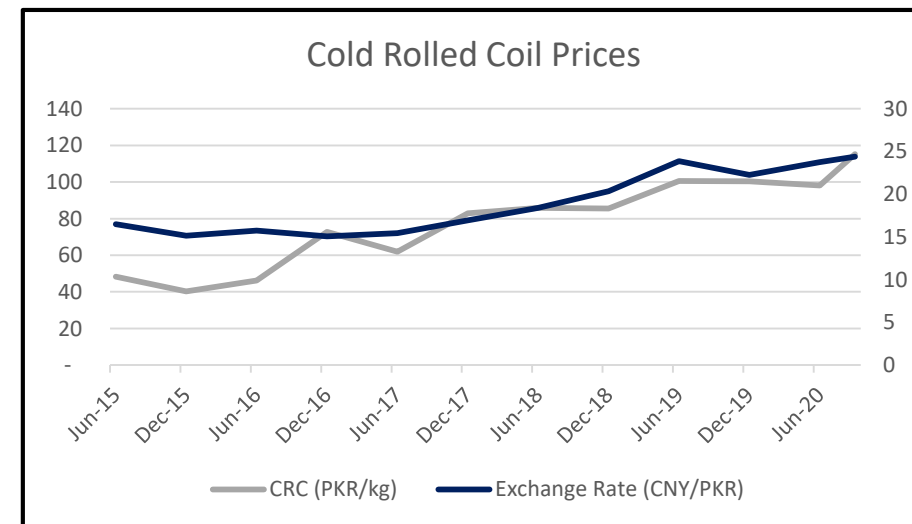
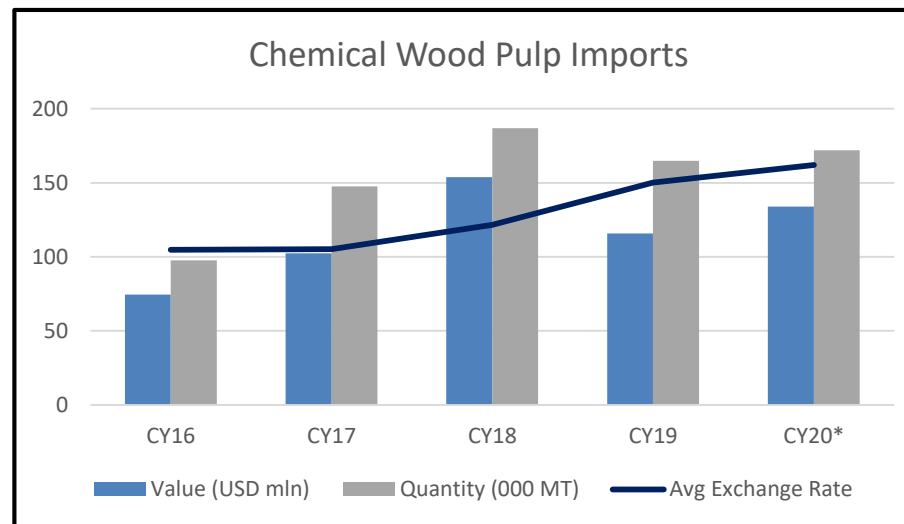
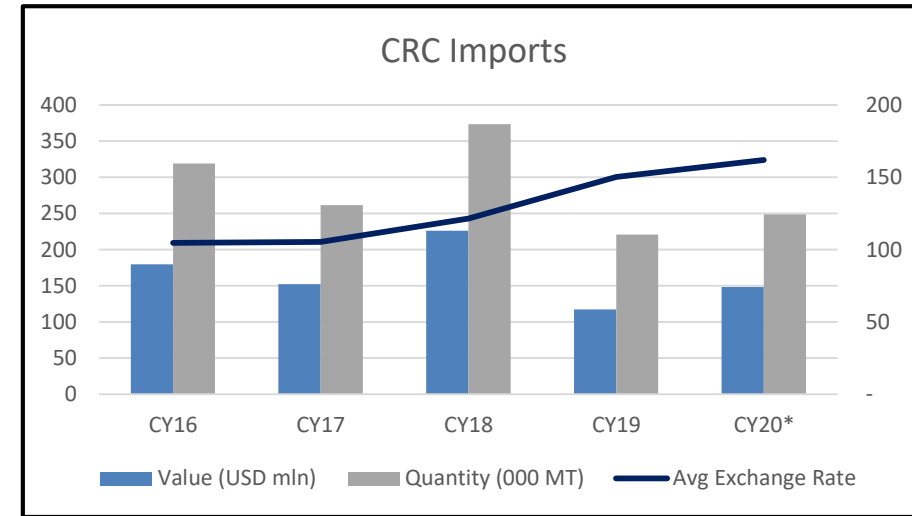
*CY20 figures are prorated based on 1QCY20 data

PAPER & PACKAGING | LOCAL INDUSTRY

Raw Materials | Paper & Tinplate

- Cold-Rolled Coil (CRC) is a major raw material for tinplate packaging and is imported from countries such as South Korea, Russia and Canada. The prices of CRC have increased ~61% in the previous five years. However, the majority of this increase is attributable to increase in exchange rate by ~48% in the same time period.
- The imports of CRC have been volatile in previous periods. During CY19, the imports declined ~48% to USD~117m (PKR~17,611m) from USD~226m (PKR~27,511m).
- The National Tariff Commission has recently imposed anti-dumping duty on CRC imports from Canada and Russia of 13.49%. Anti-dumping duty was already applicable on imports from China.
- Chemical wood pulp is one of the main raw materials in production of paper packaging. The imports of wood pulp increased ~55% from CY16 to CY19. USA, Chile and Brazil are the countries which have the largest share in wood pulp imports.

*CY20 figures are prorated based on 1QCY20 data



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Duty & Sales Tax Structure

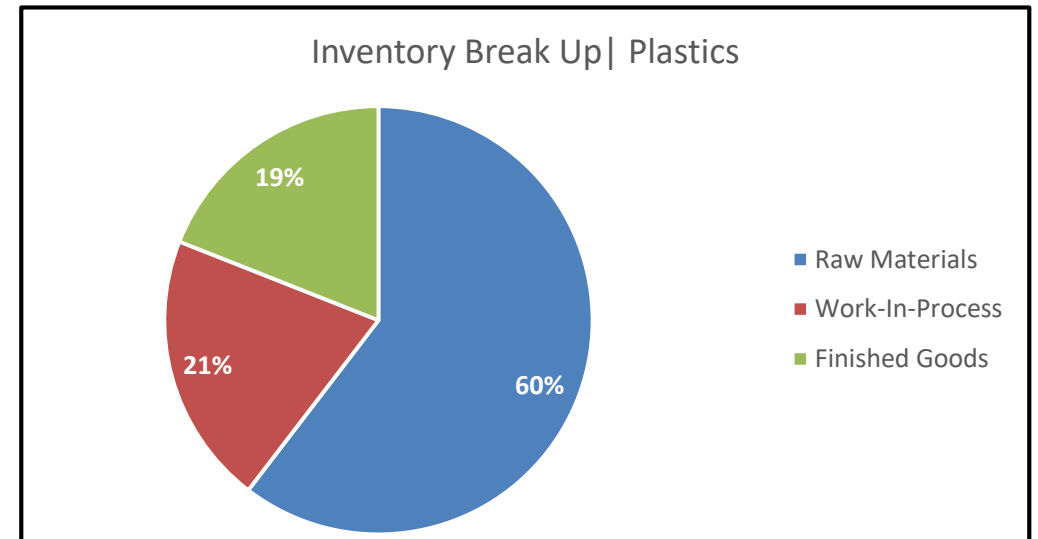
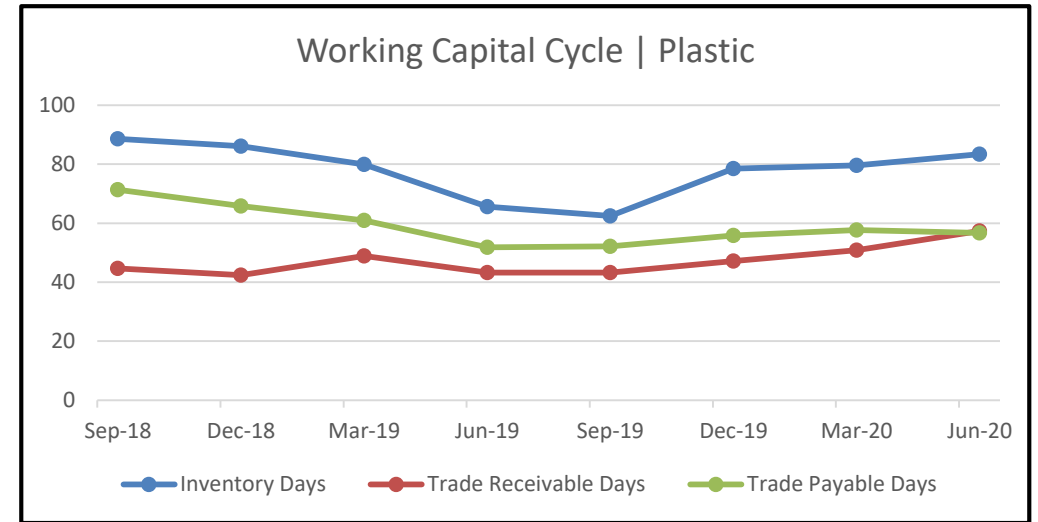
- Despite the existence of a large number of players, the packaging industry does not have an industry association to represent and lobby in favor of its interests. However, some segments have their own associations such as the Flexible Packaging Association of Converters of Pakistan and Pakistan Plastic Manufacturers Association.
- The government is providing protection to local manufacturers through the imposition of significant customs and regulatory duties on the import of finished packaging goods. With respect to income tax, the industry is under Normal Tax Regime (NTR). Further, minimum tax @1.5% of turnover is applicable 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 next 5 years. In addition, sales tax of 17% is also applicable.

PCT Code	Description	Additional Custom Duty		Custom Duty		Regulatory Duty		Total	
		FY20	FY19	FY20	FY19	FY20	FY19	FY20	FY19
Raw Materials									
72.09	Flat- rolled products of iron or non- alloy steel, of a width of 600 mm or more, cold- rolled (cold- reduced), not clad, plated or coated.	2-7%	0%	11-20%	11-20%	5%	5%	18-32%	16-25%
39.01	Polymers of ethylene, in primary forms	2%	0%	11%	11%	0%	0%	13%	11%
47.01-47.05	Wood Pulp (Mechanical, Chemical & Other)	2%	0%	0%	3%	0%	0%	2%	3%
Finished Goods									
48.19	Cartons, boxes, cases, bags and other packing containers, of paper, paperboard	7%	0%	20%	20%	0%	0%	27%	20%
39.23	Articles for the conveyance or packing of goods, of plastics; stoppers, lids, caps and other closures, of plastics.	7%	0%	20%	20%	15%	15%	42%	35%
3923.901	Preforms made from polyethylene terephthalate	4%	0%	16%	16%	15%	15%	35%	31%
8007.001	Tin Plates, Sheets or Strips	2%	0%	11%	11%	0%	0%	13%	11%

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Financial Risk | Working Capital | Plastic

- The packaging industry’s working capital cycle is a function of inventory, trade receivables and trade payables.
- The plastic packaging segment’s overall working capital cycle has remained relatively stable in previous eight quarters. However, there has been an overall increase in its net working capital days which clocked in at 84 days at the end of FY20 as compared to 57 days at the end of FY19.
- This is due to the slowdown in activity in most industries during COVID-19 pandemic and reduced demand in the plastic packaging segments specially those which cater to non-essential products.
- Working capital is partially financed through short term borrowings which constitutes a majority of the industry’s borrowing mix.
- The segments’s average inventory break up shows that ~60% of total inventory is attributable to raw materials, while ~21% consists of work-in-process inventory and ~19% is finished goods inventory.

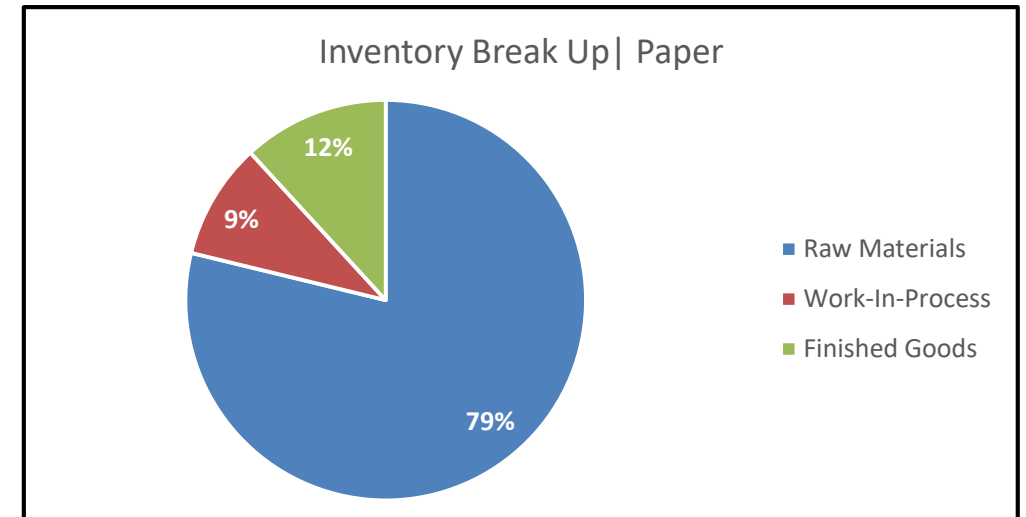
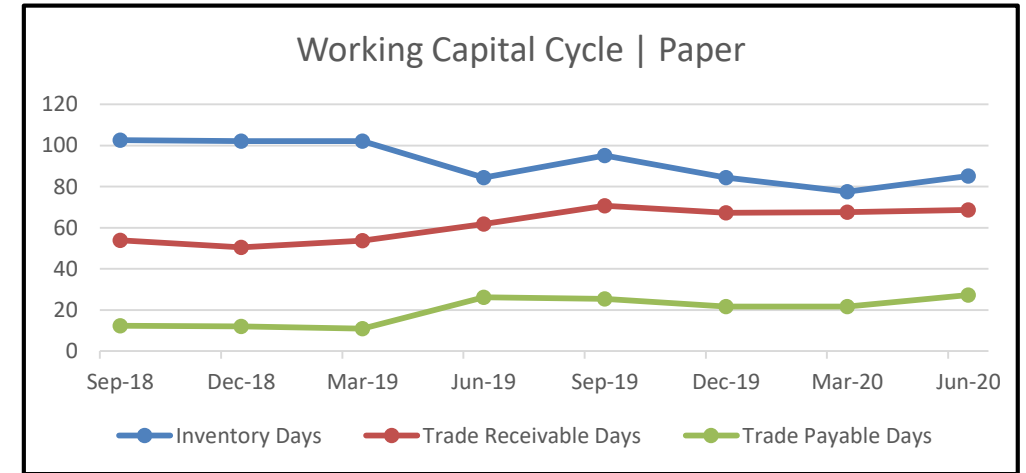


*Working capital cycle and inventory breakup are representative of 6 listed companies

PAPER & PACKAGING | LOCAL INDUSTRY

Financial Risk | Working Capital | Paper

- The paper packaging segment has observed a slight increase in its working capital cycle with net working capital days clocking in at 127 days at the end of FY20 as compared to 120 days at the end of FY19.
- The general slowdown in economic activity during COVID-19 lockdown period had a limited impact as the segments cater to many essential items whose demand was not impacted.
- Working capital is partially financed through short term borrowings which constitutes a majority of the industry's borrowing mix.
- The industry's average inventory break up shows that ~79% of total inventory is attributable to raw materials, while ~12% consists of finished goods and only ~9% is work-in-process inventory.

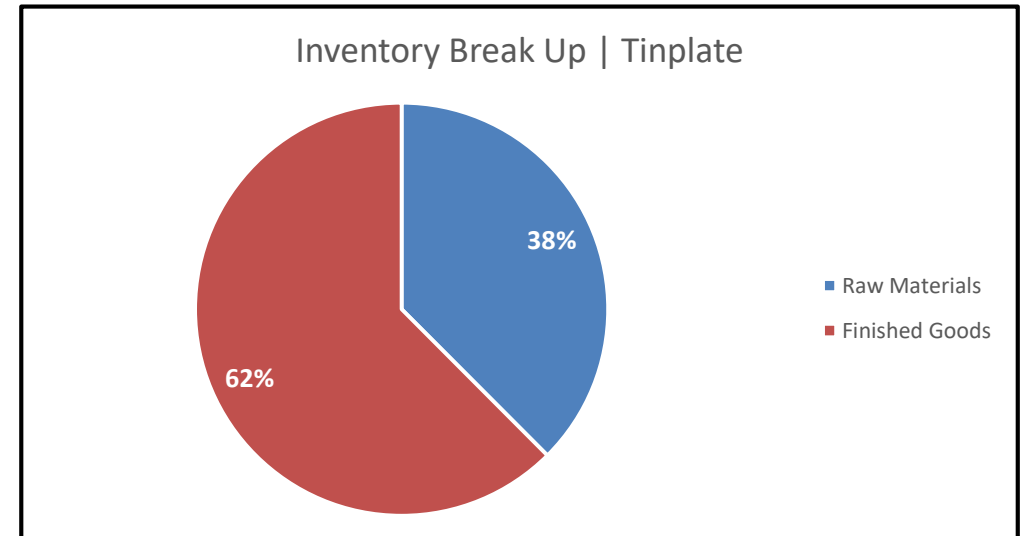
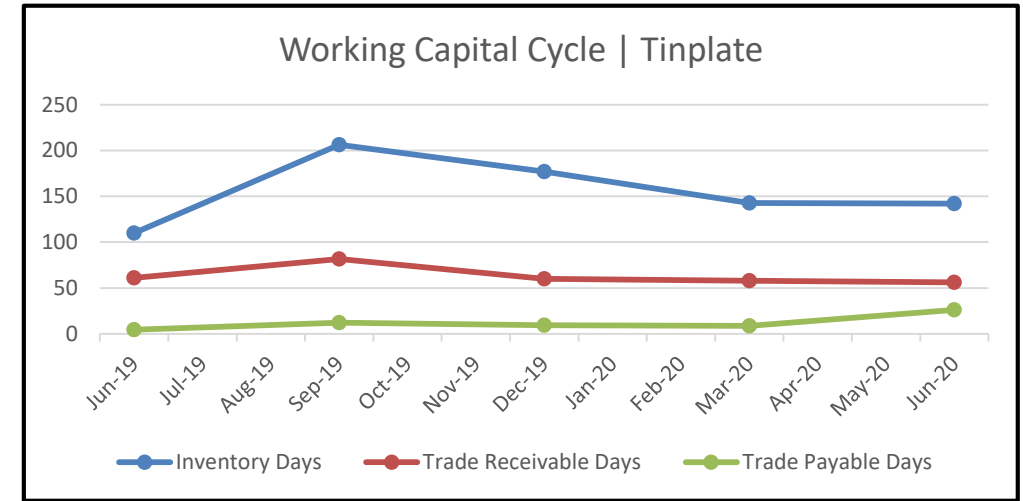


*Working capital cycle and inventory breakup are representative of 5 listed companies

PAPER & PACKAGING | LOCAL INDUSTRY

Financial Risk | Working Capital | Tinplate

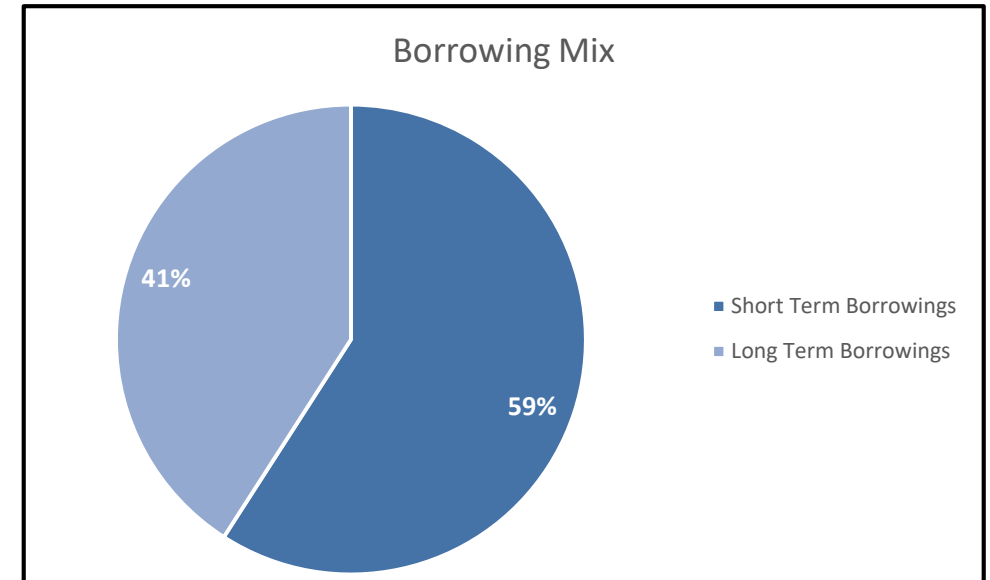
- The tinplate packaging segment has observed a slight increase in its working capital cycle with net working capital days clocking in at 172 days at the end of FY20 as compared to 166 days at the end of FY19.
- The working capital cycle is comparatively larger than other segments as inventory is ordered and stored in bulk.
- There is a brief process through which raw material is converted into finished goods. As a result, there is no work-in-process inventory maintained. A majority of the inventory, ~62%, is stored as finished goods while the share of raw material is ~38%.
- Working capital is partially financed through short term borrowings which constitutes a majority of the industry's borrowing mix.



*Working capital cycle and inventory breakup is representative of 1 listed company representing ~30% market share.

Financial Risk | Borrowings

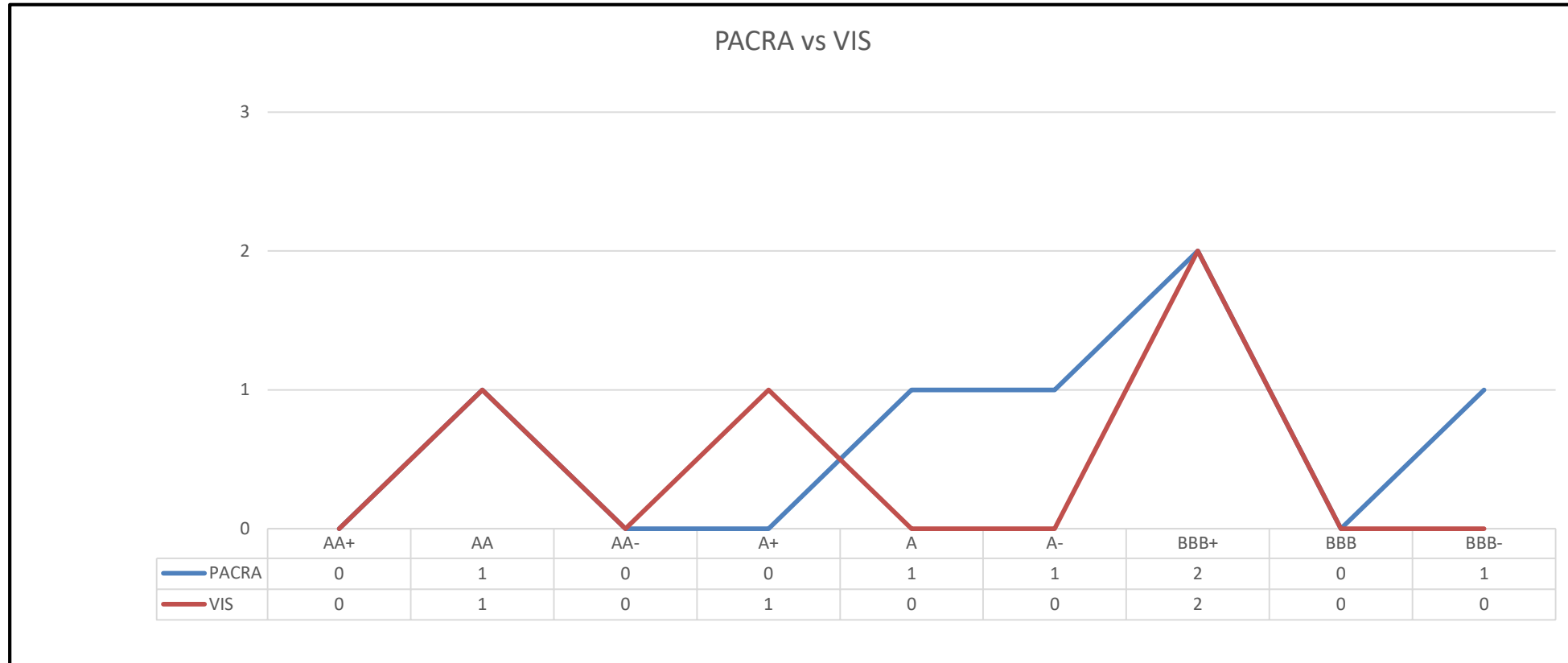
- Overall, the packaging industry has moderate leveraging, with total borrowings standing at ~41% of total capital.
- **Plastic:** The total borrowing of plastic industry stands at PKR~32,244mln at the end of September 2020 as compared to PKR~42,046mln at the end of September 2019. This was a YoY decline by ~23%.
- **Paper:** Similarly, the total borrowing of paper industry stood at PKR~47,317mln in September 2020 as compared to PKR~47,555mln in September 2019, showing a small YoY decline of ~0.5% .
- The industry’s average borrowing mix consists largely of short term borrowing which accounts for ~59% of total borrowing, while the remaining ~41% is long term borrowing.



*Average leveraging and borrowing mix are representative of 12 listed companies

**The total borrowing figures are obtained from SBP’s banking statistics for credit classified by borrower.

Rating Curve



- PACRA rates entities ranging from the AA category to the BBB- category.

Plastic

- Overall demand suffered to the spread of COVID-19 and resulting economic slowdown.
- Decline in oil prices by ~68% in the first 4 months of 2020, caused subsequent reduction in price of PET resin. Since then oil prices have recovered ~30%. Availability of cheaper raw material will have a positive impact on margins.

Paper

- Demand in this segment remained relatively consistent as it is part of supply chain of essential products.
- The spread of COVID-19 also disrupted international supply chains which caused some problems for those players who are reliant on imports. However, this was not a critical issue as sufficient inventory was being maintained.

Tinplate

- Demand from edible oil and ghee industries remained stable as they are essential items.
- ~70% of the demand is catered to by imports which were briefly hampered by international supply chain issues.
- The price of CRC also declined ~18% initially after the pandemic, however, they have since recovered to pre-COVID levels.

Relief Measures:

- The government introduced various measures to ease pressure on the industry.
- SBP allowed one year deferment of principal repayments to the corporate sector. In addition, restructuring of loans was allowed up to 30 June 2020.
- The benchmark rate was reduced by a total of 625bps to 7% which should reduce interest costs by approximately PKR~2,660mln and greatly reduce pressure on margins.

*Interest cost figure is representative of 12 listed companies



SWOT Analysis

- Highly diversified product mix.
- Government support for local manufacturers in the form of import duties.
- Availability of low cost labor.
- Increasing trend of urbanization, consumerism and e-commerce

- Increase in exchange rate and volatility of imported raw material prices.
- Increasing awareness regarding harmful environmental impacts of plastic packaging.



- Absence of an industry association for the overall packaging industry.
- Decline in per capita income and high level of inflation, thus reduced purchasing power of end consumers.

- Conversion from glass to PET bottles in the beverage industry.
- Opportunity for innovation in order to move towards more environmentally friendly packaging solutions.

Plastic

Outlook: Stable

- Demand has suffered, specifically from beverage industry and other non-essential products
- Recovery can be observed with the production of beverages in August 2020 having increased ~2% from August 2019 levels.
- However, concerns regarding a second wave of COVID-19 may cause hindrance to the recovery.
- There has been a significant reduction in oil prices and as a result prices of PET Resin have also declined.
- The plastic packaging segment may face some challenges, going forward, as consumers are increasingly more aware of the harmful environmental impact of plastics and are moving towards more sustainable alternatives. In addition, the government has already implemented a ban on single use plastic bags. As a result, the industry may require more innovation and adoption of environmentally friendly practices and products.

Paper

Outlook: Stable

- Demand from essential industries and products has remained consistent.
- The reduction in benchmark rate by 625bps is expected to reduce finance costs and ease pressure on margins of the entire packaging industry.
- The exchange rate is expected to remain stable in the near future thus reducing risk associated with the import of raw materials for all packaging players.

Tinplate

Outlook: Negative

- In August 2020, the production of Cooking Oil and ghee was only -0.06% below production levels in August 2019 indicating stable demand.
- However, recently imposed anti-dumping duty on CRC will make it harder for the local manufacturer to compete with imports.
- Although anti-dumping duty is also imposed on tinplate the duty for imports from China is too low to effectively discourage imports. Moreover, it is not sufficient to provide local manufacturer any cost advantage.

- Pakistan Bureau of Statistics (PBS)
- Pakistan Stock Exchange (PSX)
- State Bank of Pakistan (SBP)
- Federal Board of Revenue (FBR)
- National Tariff Commission
- Investing.com
- Sunsirs.com/uk
- Statista
- Trade Map
- <https://www.globenewswire.com/news-release/2019/06/05/1864474/0/en/Global-Packaging-Market-Report-2019-2023-Key-Analysis-Forecasts-Featuring-Amcor-Ball-Bemis-Berry-Global-DS-Smith.html>
- <https://www.propakvietnam.com/world-packaging-market-to-top-us1-trillion-in-2024/>
- PACRA database

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