

Summer Internship Project Report

On

Analysis of Working Capital Management of Tata Steel, with
special focus on Covid-19.

By

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(Submitted in partial fulfillment of the requirements for MBA degree)

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JK Lakshmipat University, Jaipur
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INDUSTRY CERTIFICATE



Prashikshan -2020



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CERTIFICATE

This is to certify that Shilpi Agrawal (Reg. No. VT20202084)
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01-May ,2020 to 26-June ,2020. The details of the programme are as under:

Department Covered	E&P F&A
Project Title	WORKING CAPITAL MANAGEMENT

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DECLARATION

I, Shilpi Agrawal, student of JK Lakshmipat University, Jaipur, hereby declare that this project on Working Capital Management is an original piece of work prepared by me during the 8- weeks internship at Tata Steel.

The work is done under the guidance and supervision of my faculty guide, Dr. Sarita Gupta and the industry guide at Tata Steel, Mr. Anuj Mehendiratta, with whom, I was in regular contact with.

Signature of the Student

Signature of the faculty Guide

Dr. Sarita Gupta

Faculty guide

Certificate

It is certified that the Summer Internship Report titled Working Capital Management submitted by Ms. Shilpi Agrawal is an original piece of research work carried out by the candidate under my supervision.

Sign. of the Faculty Guide
Dr. Sarita Gupta

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The internship opportunity which I got at Tata Steel, Jamshedpur, provided me a great learning experience and equipped me with immense knowledge and practical know-how of the functioning of the corporate sector. It will definitely help me in achieving my endeavors.

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I would also like to extend my gratitude to Mr. Anuj Mehendiratta, my industry mentor, who was the driving force of the project, provided all the technical, industrial, and all the first-hand information that was required to frame this report.

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1. Executive Summary of The Project

The Project Report looks into the financial analysis of Tata Steel and its competitors, by analyzing their 5-year annual financial reports. Special focus was on Working Capital Management as was required by the industry guide. Attention was also given to the current pandemic which has changed the scenario for all sectors and companies globally. For this purpose, a trend analysis was done with the market crash of 2008, wherein the economy was facing a similar trough situation, to make predictions and to look for a way out.

After gathering the 5-year data, a ratio analysis was done, to better understand the market trends, and to pictorially represent the findings to enable better understanding for the readers of the project. The company guide expected us to compare the liquidity and efficiency at which Tata Steel was performing, as compared to its competitors. So, I decided to limit myself to Activity and Liquidity Ratios as they were more significant factors for Working Capital.

The project has also analyzed the current scenario of Covid-19. The demand has decreased, giving a similarity to Global Crisis of 2008. The analysis was done using annual report and the reports from World Steel Association which showed that when can we expect a boom in the steel demand. The percentage change in the production were analyzed before and after the Global Crisis of 2008-09.

The Project report is concluded with the analysis of the effects which can be seen due to the new government policies such as the Anti-dumping policy and the mining policy.

2. Industry Overview

Steel is very important for the development of any modern economy as it is used in various purposes like construction, automobiles, etc. It is considered to be the backbone of the human civilization. All major economies of the world are largely characterized by its strong steel industry, as these were largely shaped by the steel industries in the initial phase of development (*Ministry of Steel*).

India's economic growth is largely dependent on the Indian Steel Industry. Steel has a strong hold in many sectors and derives demand from construction, automobiles, housing and transportation. Special steels, which is made by adding various elements to iron, are used in Petro-chemicals and power generation.

In 2019, India was the second largest producer of crude steel, after China. India overshadowed Japan and became second largest producer with the production of 111 million tons of crude steel. According to the forecasted data of Indian Steel association, the steel demand in Indian will rise by 7% in the FY 2020-21.

Government has taken various measures to improve the sectors performance by allowing 100% Foreign Direct Investment (FDI). The National Steel Policy of 2017 has aimed to increase the steel consumption to 160 kgs by the year 2030-31. It was encouraged to increase the production and reach the global benchmark (*IBEF*).

Indian Steel industry also has the competitive advantage over the other player of the global market in terms of easy availability of manpower at low cost. The presence of iron ores also gives an edge to increase global competitiveness.

3. Company Overview

Tata Steel Limited is an Indian multinational Steel making company headquartered in Mumbai, Maharashtra. The largest plant is in Jamshedpur, Jharkhand. The company was earlier known as Tata Iron and Steel Company Limited (TISCO). In August 2005, the name was changed to Tata Steel Limited. It is one of the top steel producing company globally with deliveries of 16.26 MnT in FY 19 and Crude steel production of 13.23 MnT. The company ranked 9th in Fortune 500 India in the year 2019.

Tata Steel Limited is a subsidiary of Tata group which was established by Dorabji Tata in 1907. The Tata group was founded by Jamshedji Tata in 1868. The business was started as a private trading firm. At that time, he dreamed of achieving 4 goals which includes setting up iron and steel company, a unique hotel, world-class learning institute and a hydro-electric plant. During his lifetime, in 1903, he opened The Taj Mahal Hotel at Colaba waterfront making it the first hotel with electricity. After his death, Sir Dorabji Tata became the chairman and achieved the founder's goal by establishing Tata Iron and Steel Limited (TISCO) in 1907, Tata power (first hydro-plant) and Indian Institute of Science in the year 1911.

In 1991, Ratan Tata had become the chairman of Tata group. The year 1991 was also the year when LPG (Liberalization, Privatization and Globalization) also known as economic liberalization came in India. During this time, as market was open to foreign competitors, Tata group also began to acquire number of companies such as Tetley (2000), Corus group (2007), Jaguar and Land Rover (20082) and many more.

TISCO began producing steel in 1912. The first steel ingot was manufactured on February 16, 1912. Today, Tata Steel is spread across five continents with more than 65,000 employees. The various acquisitions of Tata Steel Limited are Nat Steel (2004), Millennium steel (2005), Corus (2007), Steel Engineering (2007), Vinausteel (2007) and Bhushan steel (2018).

The Initial Public Offering (IPO) was done in 1919, with the offering of 1,50,000 equity shares. Further, FPO (Follow on Public Offering) took place several times resulting in increase in the number shares in the trading market. In March 2020, 32.04 % of Equity Share Capital is owned by Promoters and 66.83 % is owned by the public. 1.13% shares are held by Custodians and against which Depository Receipts have been issued.

Rationale behind conducting the project

After a year of the Pinnacle MBA at JKLU, I was very keen to get my hands on getting a practical experience in the corporate world of what was taught at the college. I was very curious on knowing how the big companies which transact in millions and billions, manage their financials, inventories, liquidity, etc. I chose Working Capital Management to research more on the liquidity of Tata Steel, which is a major player in the market, and compare it with the other smaller manufacturers who had a smaller chunk of the market share and see if the size and scale of operations had positive, negative or no relation with the liquidity of a company. It was known that Steel industry works largely on credit basis, and when I dwelled further in the topic, I couldn't find any research in the Indian market that gave any concrete answer to this. The other reason for choosing the topic was the current pandemic. I was really interested in understanding what decisions companies take when the economies face such a crisis – do they seize production, or increase their borrowing, do they sell off some of their assets or see it as an opportunity. I could not have got a better chance to answer all these questions than an internship at the time of a pandemic, in one of the largest steel manufacturers in the world. Moreover, the last such incident of a market crash was only in 2008, thus making much of the research done in this regard obsolete.

4. Project Objectives:

- a) Analysis of Working Capital Management of Tata Steel, along with its competitors.
- b) Analysis of liquidity and efficiency of Tata Steel along with its competitors.
- c) To analyze and compare effects of Covid-19 situations with the past crisis on steel industry.
- d) To describe and discuss the effect of anti-dumping policy and mining policy on steel industry.

5. Methodology:

Thy study was carried out with the help of both primary as well as secondary research methods. For Primary Research, I took help from my industry guide, Mr. Anuj Mehendiratta, who provided me with first-hand information on the whereabouts of the company. For the secondary research, I used several articles, financial reports of the companies and their competitors, etc. The ratios were analyzed from 5-year annual reports of the companies and then were compared. To predict the future trends, a similar crisis of the past, the market crash of 2008 was chosen with the consent of the industry guide, and articles and financial reports of companies of that time were also studied. The competitors were chosen by Judgement Sampling method, wherein the top competitors of Tata Steel, who have sales countrywide, and operate on a similar scale were chosen.

For the project, I only chose to analyze Liquidity and efficiency ratio as these were the most relevant to working capital management. Working capital

means capital allocated for the daily operations of the company. It is related to the short-term assets and liabilities, also known as current asset and current liabilities that are converted into cash within a year. Liquidity ratios are the calculation of short-term assets and liabilities, that shows how much cash and cash equivalents a company has to pay its short-term obligations which includes account payables. Also, working capital includes inventories which are yet to be sold. Therefore, the efficiency of a company in terms of their holding period and turnover period is calculated using activity ratios. This shows that at what frequency the cash inflow and outflow is taking place, and what extra costs in terms of holding cost, account receivables cost, the company is occurring.

6. Working Capital Management

“Working Capital management is a business strategy which ensures effective and efficient utilization of current assets and current liabilities.”

The word Working Capital is made up of two words that are “Working” and “Capital”. Working means a company’s daily operations and Capital means the monetary value required to achieve those operations. Therefore, the amount of money required or allocated in a business to achieve its day to day operations is called working capital. It shows liquidity level of a company and operational efficiency.

6.1. Concept of Working Capital:

There are two types of Working Capital.

- 1) Gross Working Capital: It is the total of Current Assets
- 2) Net Working Capital: It is the excess of Current Asset over Current Liabilities

Net Working Capital is basically an indicator of company’s short-term financial position and is calculated as subtracting Current Liabilities from Current assets.

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

CURRENT ASSETS	CURRENT LIABILITIES
• Current Investments • Inventories • Trade Receivables • Cash and Cash Equivalents • Short Term Loans and Advances • Other Balances with Bank	• Short Term Borrowings • Trade Payables • Short Term Provisions • Retirement Benefit Obligation • Current Tax Liabilities

Current assets include cash, Current investments, accounts receivable, inventory and other assets listed on company's balance sheet, and are expected to be liquidated or turned into cash in less than one year.

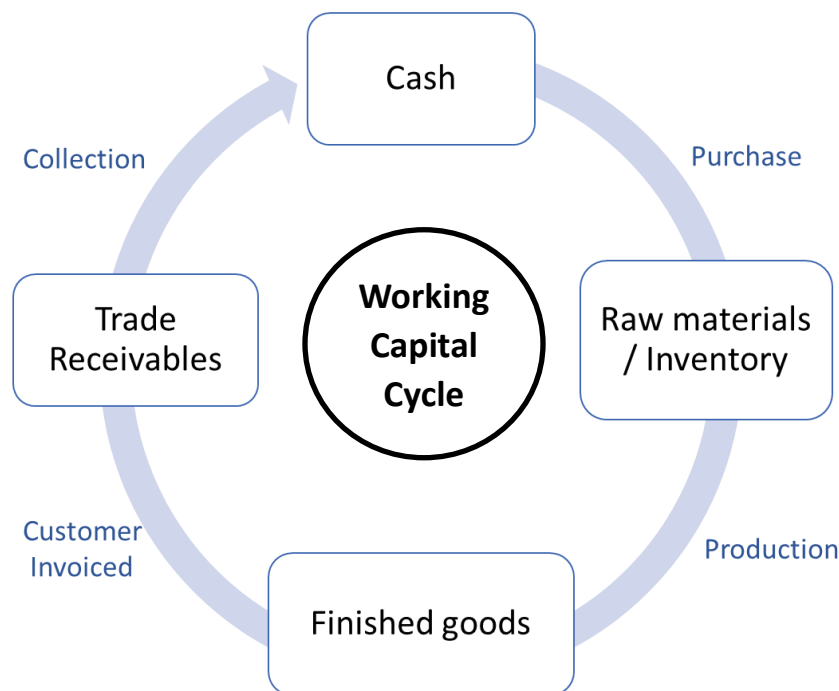
- Current Investments: Those investments which are readily realizable and are not intended to hold more than a year.
- Inventory: Inventories are goods and materials held by the company either for sale or for production of new goods. It shows that is there enough inventory held by the company as compared to its sales.
- Trade Receivables: It is the total amount of credit sale or how much amount an individual or a business is owing to the company. It shows that if a business gives credit to its customers. If yes, then what is the number of days. If trade receivables are high, then what can be done with those customers.
- Cash and Cash Equivalents: It is the most liquid form of current asset for a business. An optimal level of cash in a business is helpful in meeting expenses. These assets are also very beneficial at the time of crisis like Global financial crisis 2007-08 when there was liquidity crunch in the market, also in the current scenario of Covid-19 pandemic.

Current liabilities include accounts payable, short-term borrowings, wages, taxes payable, and the current portion of long-term debt and are due for 12 months.

- Short term borrowings: It is the borrowings from banks or other institutions to fund the day to day activities of a business, which is due within a year.
- Trade Payables: It is the amount required to pay to the suppliers. Generally, companies follow a trend of longer payment period so that the cash can be utilized optimally.

- Short term provisions: It is the amount which are expected to incur but the company uncertain about the timing of occurrence. It includes bad-debt, inventory obsolescence.
- Current tax obligation: It is the amount of tax a business has to pay based on current tax laws.

6.1. Working Capital Cycle:



The working capital cycle or operating cycle consist of time period of buying raw materials or inventories for production of goods to collection of cash from the customers. The need of working capital arrived from the fact that there is a time gap between production and sale of final products. The operating cycle tells the time gap between outflow and inflow of cash. The less the operating cycle is, the less amount to be invested in working capital, therefore increasing the profitability.

The goal of Working Capital management is to achieve the company's short-term liability along with its day-to-day operational expenses. The management of working capital involves managing inventories, account receivable and payable, and cash.

Each firm should hold some amount of cash. As mentioned by Economist John Maynard Keynes, three primary reasons are there to explain why a firm should hold cash. Those are for the purpose of Speculation, Precaution and Transaction.

- a) Speculation:** Economist Keynes said that firms hold cash as to take advantage of special opportunity that if acted upon quickly can give advantage to the firm.
- b) Precaution:** Holding cash as a precaution means funds used during emergency. If the expected cash inflow is not there in a particular time period, the cash withheld can be used for short-term obligations.
- c) Transaction:** Firms also need cash to satisfy cash inflow and cash outflow to create products or provide services.

Working Capital management is important in a business as it is required to maintain smooth operations and, also to increase the earning and profitability. The main objectives of working capital management include maintaining the working capital operating cycle and ensuring its ordered operation, minimizing the cost of capital spent, and maximizing the return on current asset investments. When a company does not have enough working capital, it can lead to financial insolvency, assets liquidation and sometimes to bankruptcy.

6.2. Significance of Working Capital:

- 1) **Feeling of Security and Confidence-** Positive working capital gives confidence and security not only to business but also to the customers, creditors and shareholders.

- 2) Maintaining solvency and continuing production- It means enough capital is available to make all payments in time. Production will also suffer without working capital.
- 3) Increases the goodwill of the company and debt capacity- Promptness in payment by businesses creates and maintains goodwill of the company and, also increases the debt capacity as the business will be able to meet its debt.
- 4) Bank gives easy loans- Excess current asset over current liabilities show that the company is able to meet its short-term obligations. Therefore, banks give loans easily.
- 5) Dividend distribution- If working capital is short or negative, it will directly affect the dividend distribution irrespective of how much company is making profits. The profits will be retained to make up the low or negative working capital. If working capital is positive, dividends will be distributed, increasing the share value in the market.
- 6) Exploitation of Good Opportunities- Good opportunities can be grabbed, like off-season purchase of goods can result in substantial saving.
- 7) Increased production efficiency- A continuous supply of raw material, sale of final goods, maintained trade receivables will increase the efficiency of employees as well.

6.3. Need of Working Capital Management:

There is a need of Working Capital Management as to fulfil the objective of financial decision making i.e. to increase or maximize the shareholder's wealth, company needs to generate sufficient profits. It cannot be achieved without sales converted into cash. Therefore, the working capital is needed as to deal with the gap between sale and cash collection. Some amount of cash is also blocked due to bad-debt, expiry of inventory before sale, Work-in-progress, etc. So, there is a constant need of proper allocation on assets, so that inventory should not exceed the benchmark and cash to be collected in time.

7. Introduction to Ratios

To know the financial health of a company, ratio analysis is done, as ratios make numbers comparable i.e. for apple-to-apple comparison. We can also compare two or more businesses. Ratio analysis is a vital tool for analyzing financial performance using 5 basic types of ratios: Solvency ratio, Liquidity ratio, Profitability ratio, Activity ratio & Valuation ratio.

- 7.1. **Solvency Ratio** is used to measure company's ability to pay its short and long-term debt. It shows that if the company have enough assets to meet its debt obligations. Solvency ratio includes debt to equity ratio and interest coverage ratio.
- 7.2. **Liquidity ratio** shows the ability of a company to pay its short-term debt using its internal cash inflows, without raising external capital. It includes Current ratio, Quick ratio and Cash ratio.
- 7.3. **Profitability Ratio** are the ratios used to measure profits with respect to the revenue generated, shareholder's value and operating costs. The ratio includes Gross Profit Margin, Operating Margin, Profit Before Tax (PBT) Margin, Profit After Tax (PAT) Margin, Return on Capital Employed (ROCE), Return on Asset (ROA) and Return on Equity (ROE).
- 7.4. **Activity Ratio** refers to the type of the financial ratios which are used by the company in order to determine the efficiency with which the company is able to use its different operating assets that are present in its balance sheet and convert the same into the sales or the cash. It includes Total Asset turnover ratio, Fixed Asset Turnover ratio, Working Capital turnover ratio, Collection Period, Payment Period, Inventory Turnover Ratio and Net Operating Cycle / Cash Conversion Cycle.
- 7.5. **Valuation Ratio** is the measure of determining what a company is worth for. It includes price-to-earnings ratio, Price-to-book value, Price-to-sales, Price-to-cash flow and Price/earnings-to-growth (PEG) ratio.

8. Important Ratios for the Project

For Working capital management, we will look into the Company's Liquidity ratios and Activity Ratios as these ratios are related to current assets and liabilities.

8.1. **Liquidity ratio** includes Current ratio, quick ratio and cash ratio.

8.1.1. **Current Ratio:** It is a liquidity ratio that compares all the current asset to the current liability. It is also referred to working capital ratio.

$$\text{Current Ratio} = \text{Current Asset} / \text{Current Liability}$$

The ideal current ratio is 2:1 meaning Current Asset is double of current liability, i.e. company can easily pay its short-term liabilities. Higher current ratio does not always good for a company, if current assets are high, it can also mean that account receivable has aged, or inventory is not able to be sold. Also, If, current ratio is less than one, in many cases, it means company is not having enough capital to meet its current obligations, although different situation can affect the current ratio in big companies. For example, if a company has longer payment period, but can cover it through account receivable, then it can also lead to profitability. Therefore, along with ideal ratio, other factors like industrial average and environmental factors can be taken care of.

Generally, creditors who are looking to be paid in the next 12 months, are looking for higher current ratio. (Investopedia)

8.1.2. **Quick ratio:** Quick ratio is a type of liquidity ratio which indicates the ability of a company to pay its short-term liability without needing to sell its inventory or to raise extra capital.

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities}$$

The ideal Quick ratio is 1:1. It means that company is fully equipped with highly liquid assets which can be instantly liquidated. The higher the ratio is, better is the company's financials. Lower value shows that company can struggle with paying short-term liabilities. But, only looking at quick ratio cannot tell company's financial health. Quick ratio can be high because of high account receivable, and due to certain scenario, if receivable amount is not received at a given time period, despite of good financial health, it can affect account payable and essential business expenses which need payment immediately. (Investopedia)

8.1.3. Cash Ratio: Cash ratio shows company's ability to cover its short-term obligation using only cash. It is calculated by total cash and cash equivalent divided by the current liabilities. This shows the firm's value under worst case scenario.

$$\text{Cash Ratio} = \text{Cash \& Cash equivalent} / \text{Current Liabilities}$$

Cash and cash equivalent include cash on hand, demand deposits and marketable securities. The ratio from 0.5 to 1 is generally preferred but there is no ideal ratio. If ratio is less than 1, it indicated low cash on hand with respect to the current liability, but it may not be bad news if balance sheet has other conditions to skew it. (Investopedia)

8.2. Activity ratios

Activity Ratios include Total Asset turnover ratio, Fixed Asset Turnover ratio, Working Capital turnover ratio, Collection Period, Payment Period, Inventory Turnover Ratio and Net Operating Cycle / Cash Conversion Cycle.

8.2.1. Total Asset turnover ratio: It is the ratio of net revenue and the Total asset for a financial year.

$$\text{Total asset turnover ratio} = \text{Net Sales} / \text{Total Asset}$$

8.2.2. Fixed asset turnover ratio: It is the ratio of Net revenue and the fixed asset for a financial year.

$$\text{Total asset turnover ratio} = \text{Net Sales} / \text{Fixed Asset}$$

The higher asset turnover ratio, better is the company's performance as it says higher revenue is generated per asset. The asset turnover ratio shows how efficiently the assets are being used by the company to generate sales.

8.2.3. Working Capital turnover ratio: This ratio indicated that how efficiently a company is using its working capital to generate sales.

$$\text{Working Capital turnover ratio} = \text{Net Sales} / \text{Working Capital}$$

A higher ratio suggest that management is efficiently using its short-term assets. But a lower ratio may suggest that business is investing too much on inventories and account receivables, which may lead to bad debts. (Investopedia)

8.2.4. Collection Period: The time period given to the debtors by a company to complete the payment is termed as Collection Period. The receive payments from the clients is in terms of account receivables. It can be calculated as:

$$\text{Collection Period} = (\text{Average Receivables} * 365) / \text{Net Sales}$$

Generally, companies prefer low collection period i.e. collects payment faster, as, earlier the debtors pay, the more efficiently cash can be used for operational or other activities. (Investopedia)

8.2.5. Payment Period: It is the period during which buyer is obliged to pay all the debts. It is calculated as:

$$\text{Payment Period} = (\text{Average payable} * 365) / \text{Purchase of material}$$

Where purchase of material is sum of cost of material consumed and current year inventory minus previous year inventory.

Company prefers longer payment period as the longer the payment period, the company can utilize that amount to increase sales and profitability. (Financial Dictionary)

8.2.6. Inventory Turnover ratio: It is a ratio showing number of times a company is able to sell and replace the inventory in a given period.

$$\text{Inventory Turnover Ratio} = \text{Cost of goods sold} / \text{Average Inventory}$$

The ideal inventory turnover ratio for a business is 4 to 6. A lower turnover ratio implies weak sales or excess inventory and higher ratio implies either strong sales or insufficient inventory. Slow selling items can result into incur of holding cost. Therefore, this ratio can help a business to take decisions on pricing, marketing, buying new inventory and manufacturing. (Investopedia)

8.2.7. Net Operating Cycle / Cash Conversion Cycle: The cash conversion cycle (CCC) is a metric that expresses the length of time (in days) that it takes for a company to convert its investments in inventory and other resources into cash flows from sales. It can be calculated as:

$$\text{Net Operating Cycle} = (\text{Collection Period} + \text{Inventory Holding Period}) - \text{Payment Period}$$

The shorter the Cash Conversion Cycle is, the better it is for the company. The low Cash Conversion Cycle signifies that cash is easily available at frequent intervals in the business, and can be utilized to generate more sales, as frequent availability of capital can result in more products to be made and sell. (Investopedia)

9. Brief Description of the Competitors:

9.1. Jindal Steel and Power Limited:

Jindal Steel and Power limited is an industrial powerhouse founded by Shri O.P. Jindal in the year 1952. This Indian steel and energy company is based in Hisar and headquartered in New Delhi, India. JSPL is a part of Jindal group conglomerate. The products manufactured and sold are Steel (mild steel slab, mild steel, hot rolled plates and coils), Iron (sponge iron, ferro chrome, iron ore and coal-based sponge iron) and electricity generation and distribution.

Led by Mr. Naveen Jindal, the youngest son of the legendary Shri O.P. Jindal, the company produces economical and efficient steel and power through backward and forward integration.

Along with contribution to India, company is also having global expansion with 6 major subsidiaries which includes Jindal Power Limited, Jindal Shaheed Iron and Steel Oman, Jindal Steel Bolivia, Jindal Steel and Power Mauritius, Jindal Africa Investments and Sky-high Overseas. (Jindal Steel, n.d.)

9.2. JSW Steel

JSW Steel is an Indian steel making company headquartered in Mumbai, Maharashtra. JSW is a part of SW group conglomerate. It is expanded to over 140 countries in different continents including South America, South Africa and Europe. It is India's second largest private sector steel company. According to IBEF (Indian Brand Equity Foundation), JSW is India's largest Steel making company in the year 2020.

JSW's history can be traced back to 1982, when the Jindal Group acquired Piramal Steel Limited, which operated a mini steel mill at Tarapur in

Maharashtra and renamed it as Jindal Iron and Steel Company (JISCO). The first plant of JSW steel is at Vasid near Mumbai, opened in 1982. The products manufactured and sold are Steel, flat steel products, long steel products, wire products and plates. (Wikipedia, n.d.)

9.3. Steel Authority of India Limited:

Steel Authority of India (SAIL) is a state-owned steel making company headquartered in New Delhi, India. It is owned and operated by Government of India. It is the third largest Steel making company in India, according to a report published by IBEF (Indian Brand Equity Foundation), 2020. SAIL is India's fastest growing Public Sector company. It is also having Research & Development center for Iron & Steel, Centre for Engineering in Ranchi, Jharkhand.

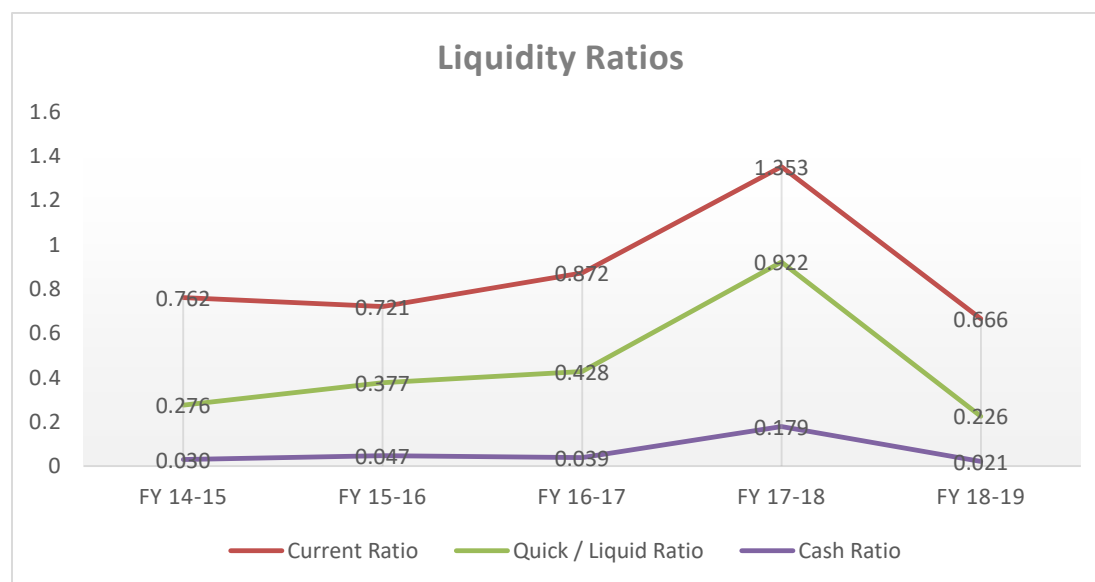
The origin of SAIL starts from Hindustan Steel Limited (HSL) which was setup in January 1954. It was made to manage only the Rourkela branch. The other plants which were in Bhilai and Durgapur was managed by Iron and Steel Ministry. Another new plant at Bokaro, i.e. Bokaro Steel Plant was incorporated in 1964. To manage the inputs and outputs of all these plants under one roof, Steel Authority of India was formed and incorporated in January 1973. In 1978, SAIL was restructured as an operating company. (Wikipedia)

10. Comparison with the competitors / Analysis and Result

10.1. Ratio Analysis of Tata Steel

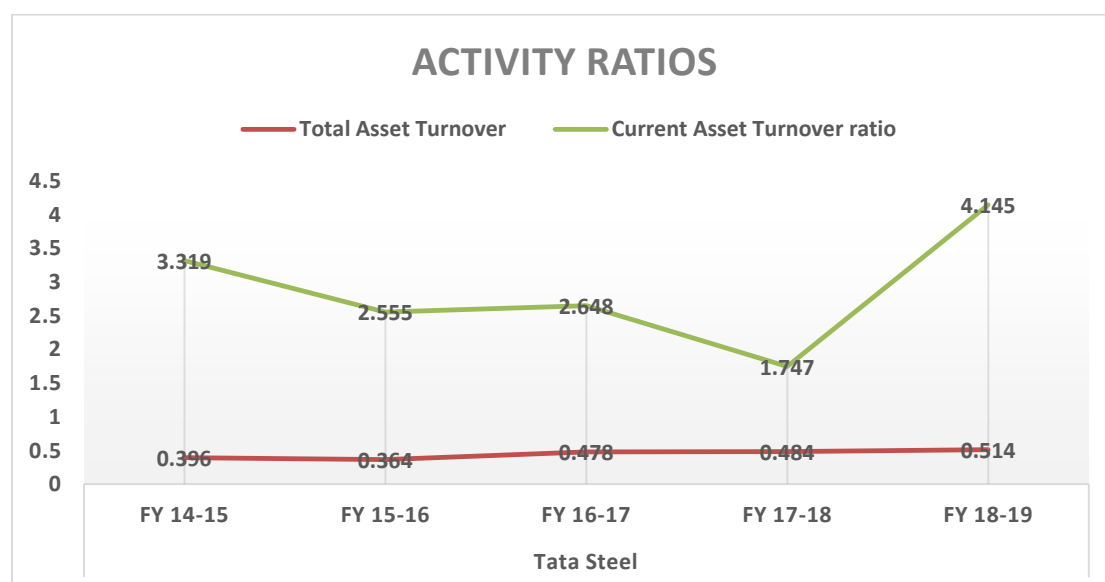
Financial Year 2018-19 was a good year for Tata Steel as the company showed strong financial performance. The company was also acquired Bhushan Steel and Usha Martin Steel. These acquisitions have increased the product portfolio of the steel business and expanded its presence in premium and niche segment. The total revenue generated Rs. 70,611 Cr., which was approx. Rs. 10,000 Cr. more than the previous year. The total crude steel production was of 13.23 MnT. (Tata Steel) (Tata Steel Annual Report) (Tata Steel Annual Report) (Tata Steel Annual Report)

The Liquidity Ratio has decreased in the financial year 2018-19, as we can see from the graph. The Current Ratio of Tata Steel has decreased more than half from the previous year i.e. from 1.353 to 0.666. (Tata Steel Annual Report)



This decrease is not due to decrease in total current liabilities as it remained same for the financial year 2018- 19 and 2017-18, but due to significant decrease in the total current asset, mainly due to investments in bonds and stocks. In the year 2017-18, Rs. 14,640.37 Cr. was invested in Reliance Liquid Fund, Axis Liquid Fund, HDFC Cash Management Fund, et cetera. But there were no investment made in the FY 2018-19 in these funds and also the previous investments were sold which could be seen from Cash flow Statement of investing activities from annual report of FY 2018-19, (Purchase) / Sale of current investments (net positive value shows the sale of current investment). The Cash and cash equivalents were also decreased from Rs. 4588.89 Cr. to Rs. 544.85 Cr. This decrease is due to reduction in unrestricted balance with banks. Because of this reason Quick ratio and Cash ratio has also decreased from the previous year.

The current asset turnover has increased approximately 2.5 times from the previous year, due to increase in net sales and decrease in current asset.



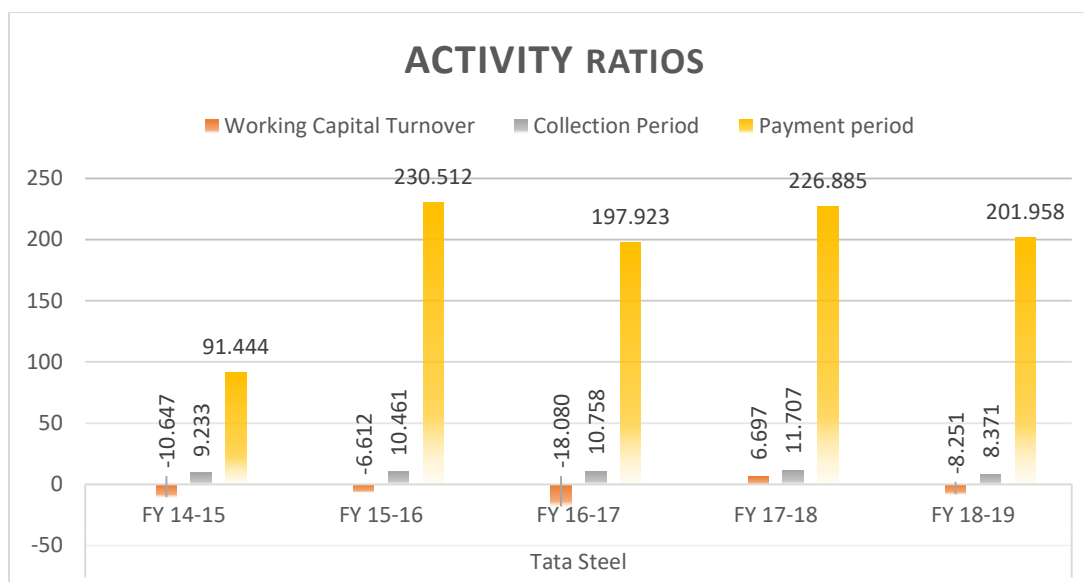
Total asset turnover is below 1, but is increasing from the past years, which can be seen from the above graph. If we see the larger manufacturing and real-estate companies, the asset base is very large due to heavy equipment, et cetera, resulting in lower asset turnover ratio.

During the FY 2018-19, Tata Steel acquired Bhushan Steel (renamed as Tata Steel Bhushan Steel Limited (TSBSL)) and Usha Martin Limited through one of its subsidiaries. Therefore, the current or short-term assets (investments and cash & cash equivalents) were converted into long term investments, which can be seen from the cash flow statement of investing activities from annual report FY 2018-19 (Purchase of investment in subsidiaries). This long-term investment is also beneficial if we consider the present scenario of COVID-19.

According to industry experts, the post-pandemic period would be that of the leading players in the market. “The top three market-share holders have the maximum potential once the pandemic subsides” – Krishna Narnolia, founder and CMD of Narnolia Group of Companies. The crisis led the sales in all industries to plunge to a great extent and left them in cash crunch. In such a phase, if a company withdraws its investments from the equity and capital markets and uses it for its own operations or expansions, there could be no better strategy. Call it mere luck, or powerful forecast, this step would definitely help the company to a great extent.

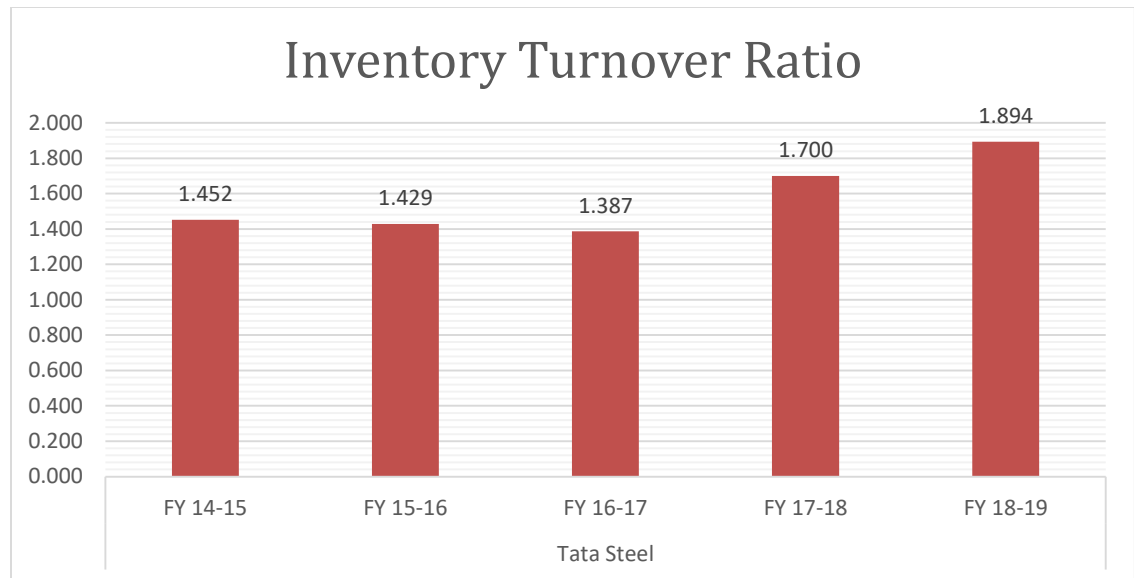
Once the crisis ends, and life returns to normality, there will be an immediate spike in demand by households and individual consumers, leading to a bull-whip-effect. The big players, who would have some inventory in hand, and the capability to manufacture at a faster pace, would benefit from this short-term surge in the market. The other smaller players, who already would be in a cash crunch, and be having a crucial phase would further see a decline in market-share. Thus, we see how the timely decision of selling the liquid funds and spending in its subsidiaries would prove to be a boon for the company.

The Working capital of Tata Steel is negative. Generally, negative working capital signifies that the company does not have enough current assets to pay its current liabilities, i.e. current liabilities is more than current assets. But some bigger companies have the trend of negative working capital as their business model.

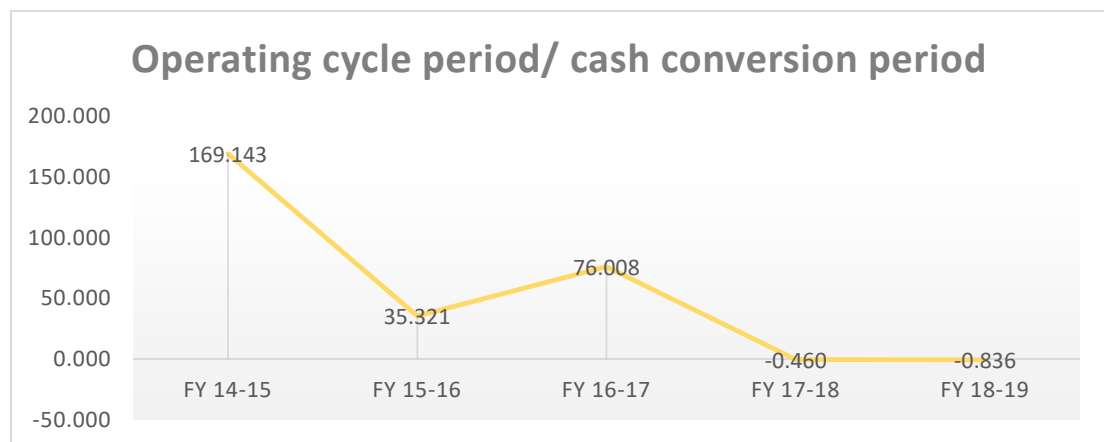


In Tata Steel, the working capital is negative because they take money from their customers in advance and, also its collection period is as low and payment period is high. For the financial year 2018-19, we can see from the above graph that collection period is as low as around 8 days, whereas, the payment period to the suppliers, is 202 days, because they can demand longer payment period. This results the current assets to be lower than the current liability.

Inventory Turnover Ratio is increasing from past three years but is significantly low i.e. 1.89 in the FY 2018-19.



This signifies that the sum of Cost of material consumed, Purchase of stock-in trade and change in inventories for FY 2018-19 is not very high from average inventory of FY 2018-19 and 2017-18. This can result in increased inventory management cost.



Tata Steel has been able to decrease its Operating cycle / Cash conversion cycle, which was 169.143 days in the FY 2014-15 to -0.836 days in the FY 18-19. The Operating cycle should be low, preferable negative as it shows that the payment period is longer than sum of collection and inventory holding period. If cash is collected on time, it can be used efficiently.

10.2. 5-year Ratio of the competitors

10.2.1. JSW Steel:

The revenue generated by JSW Steel was Rs. 76,727 Cr. in the financial year 2018-19. The total production of crude steel was of 16.69 MnT. The overall liquidity position has improved from last year as can be seen from the Current ratio (0.769 to 0.814), Cash ratio (0.364 to 0.506) and Quick ratio (0.018 to 0.153). The total asset turnover has decreased but fixed asset turnover (tangible) has increased. The collection period has significantly increased from past 5 years. Currently, it is around a month. We can see the negative trend of the Working capital Turnover. The inventory holding period of the company has been decreasing from 5 years, signifying that the company is working on its inventory management. (JSW Annual Report)

10.2.2. Jindal Steel:

The revenue generated by Jindal Steel was Rs. 27,863.33 Cr. in the financial year 2018-19, showing 58% growth in revenue from the previous year. The crude steel production is 8.6 MnT. The overall liquidity position is good with very weak cash ratio i.e. 0.004. The activity ratio for Jindal Steel is very strong. The Current Asset turnover ratio and inventory turnover ratio is highest for Jindal Steel with respect to other three competitors. The working capital is negative, showing that the company is following negative working capital trend. Overall, from ratio analysis table, we can say that the company is performing very efficiently. (Jindal Steel, n.d.)

10.2.3. Steel Authority of India Limited:

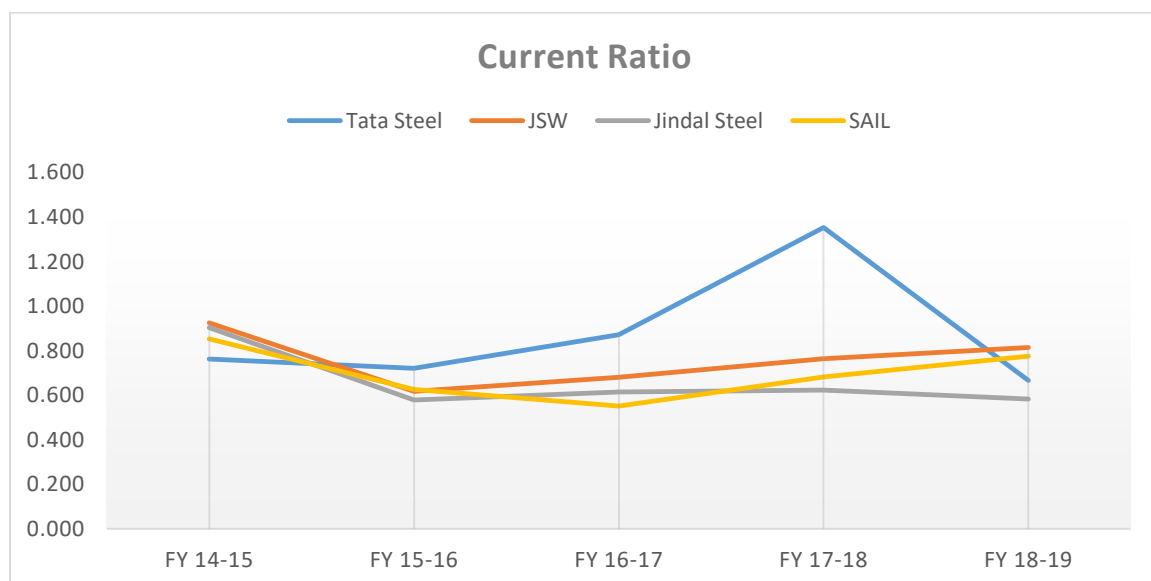
The revenue generated by SAIL is Rs. 66,967.31 Cr. in the financial year 2018-19. The crude steel production was 16.3 MnT. The overall liquidity position is good with very weak cash ratio i.e. 0.001, which has also decreased from the previous year. The total asset turnover has increased from the past years. The

Company is also following the negative working capital trend. The inventory holding period is very high, i.e. about 315 days, which has decreased significantly, but not very optimally, if we compare it to its competitors. (SAIL Annual Report)

10.3. Comparative analysis using Ratios:

LIQUIDITY RATIOS COMPARISON

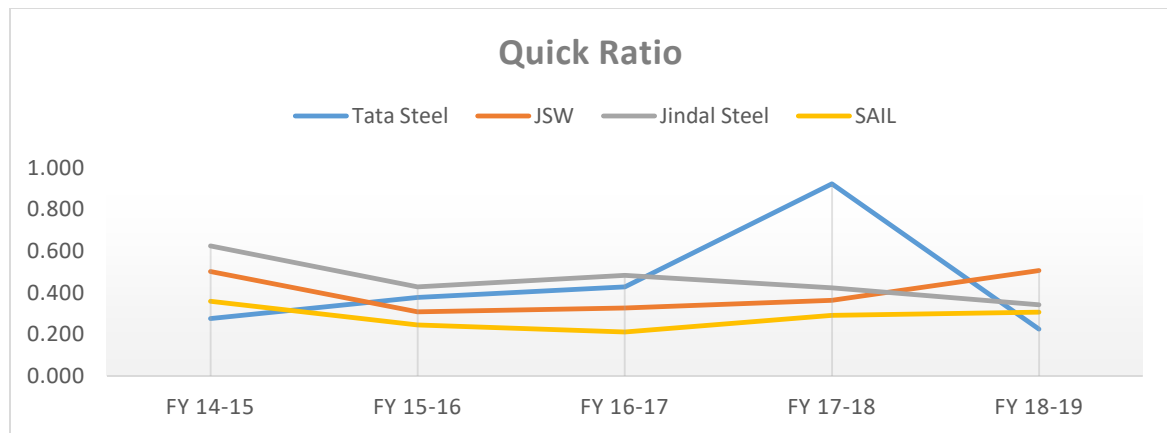
Current Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	0.762	0.721	0.872	1.353	0.666
JSW	0.925	0.618	0.681	0.764	0.814
Jindal Steel	0.904	0.578	0.615	0.623	0.583
SAIL	0.852	0.626	0.551	0.683	0.775



The current ratio, that is the ratio of current asset to current liability is 1.3 for tata steel in the FY 17-18 but has decreased significantly. The current ratio for all the

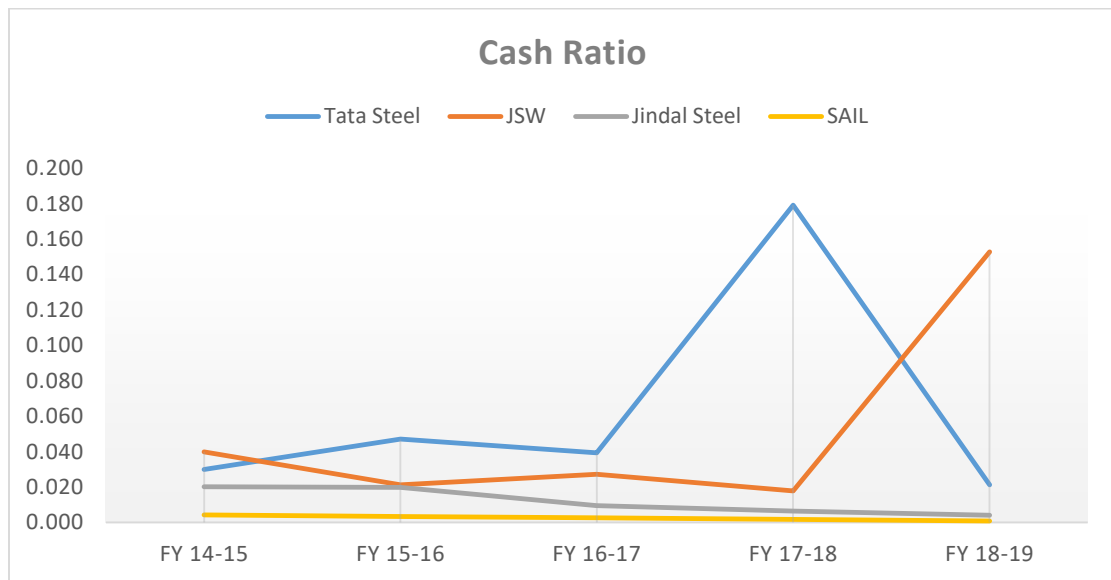
companies is below 1. We can analyze from the graph that Tata Steel's current ratio has also reduced significantly in FY 18-19 and maintained a level below 1. Current asset can be increased due to unsold inventories, which in return can increase inventory holding cost. Therefore, companies tend to maintain current ratio in between 1 to 1.5. Companies also strategically follow to maintain low liquidity ratio so that the current assets are used efficiently.

Quick Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	0.276	0.377	0.428	0.922	0.226
JSW	0.502	0.308	0.326	0.364	0.506
Jindal Steel	0.625	0.429	0.483	0.424	0.342
SAIL	0.359	0.246	0.212	0.291	0.308



Quick ratio does not consider the cost of inventories. The ratio is highest for JSW, showing that in the FY 2018-19, JSW has maintain the highest liquidity as compared to its competitors. The ratio for Tata Steel has decreased in the current year, but that is due to the fact that it withdrew its short-term investments from the capital markets and invested long term in its subsidiaries, which is good for the company but it had resulted into lowest quick ratio with respect to its competitors. This can affect whenever there is a liquidity crunch in the market.

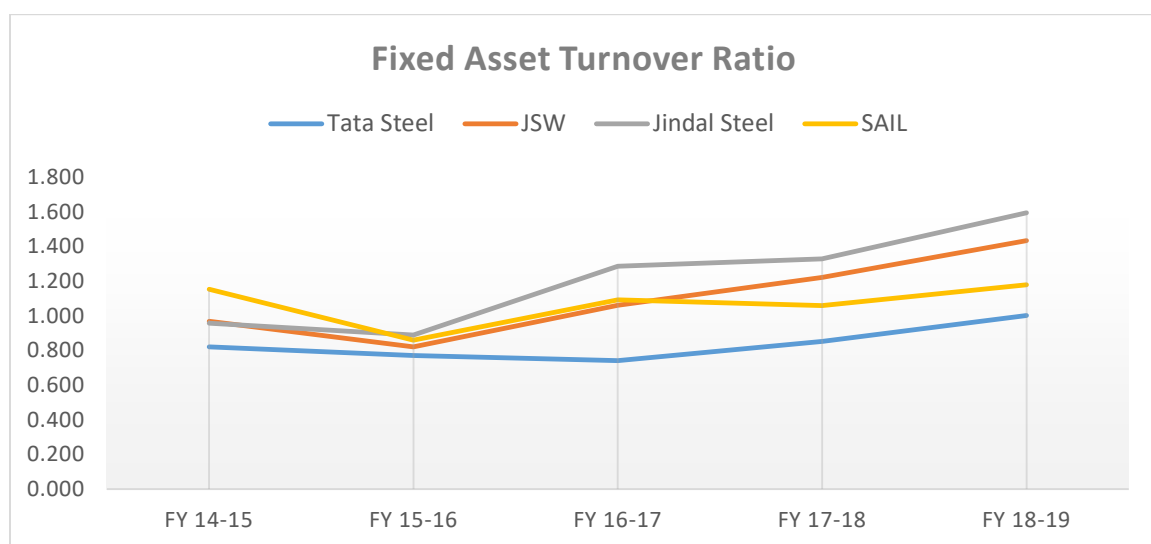
Cash Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	0.030	0.047	0.039	0.179	0.021
JSW	0.040	0.021	0.027	0.018	0.153
Jindal Steel	0.020	0.020	0.010	0.006	0.004
SAIL	0.004	0.003	0.003	0.002	0.001



The past trends showed that in FY 17-18, tata Steel has the highest cash ratio but has decreased significantly in the succeeding year. JSW is the major player as far as cash ratio is concerned, with highest ratio near to 1.5. The position of other two competitors i.e. Jindal Steel and SAIL, are very weak.

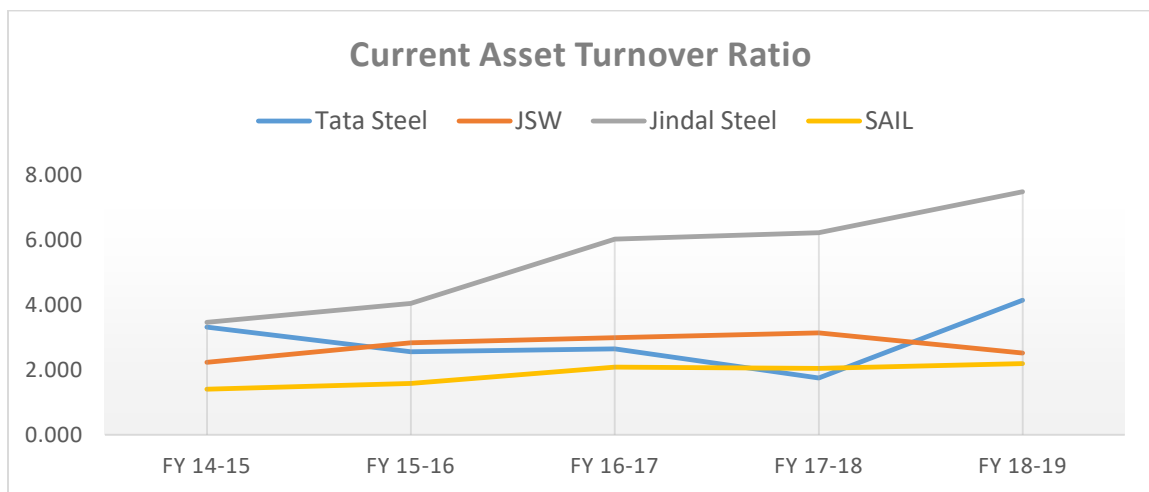
ACTIVITY RATIOS COMPARISON

Fixed Asset Turnover Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	0.821	0.771	0.742	0.853	1.003
JSW	0.969	0.822	1.061	1.223	1.434
Jindal Steel	0.957	0.890	1.286	1.328	1.594
SAIL	1.153	0.861	1.092	1.059	1.179



Fixed Asset Turnover is lowest for Tata Steel as compared to its competitors. The lower ratio is not always bad for a company. If the company is very large, as in case of Tata Steel, fixed assets are generally higher than the sales, resulting in lower ratio. Jindal Steel is leading in this ratio, as higher the ratio, the better the asset is being utilized.

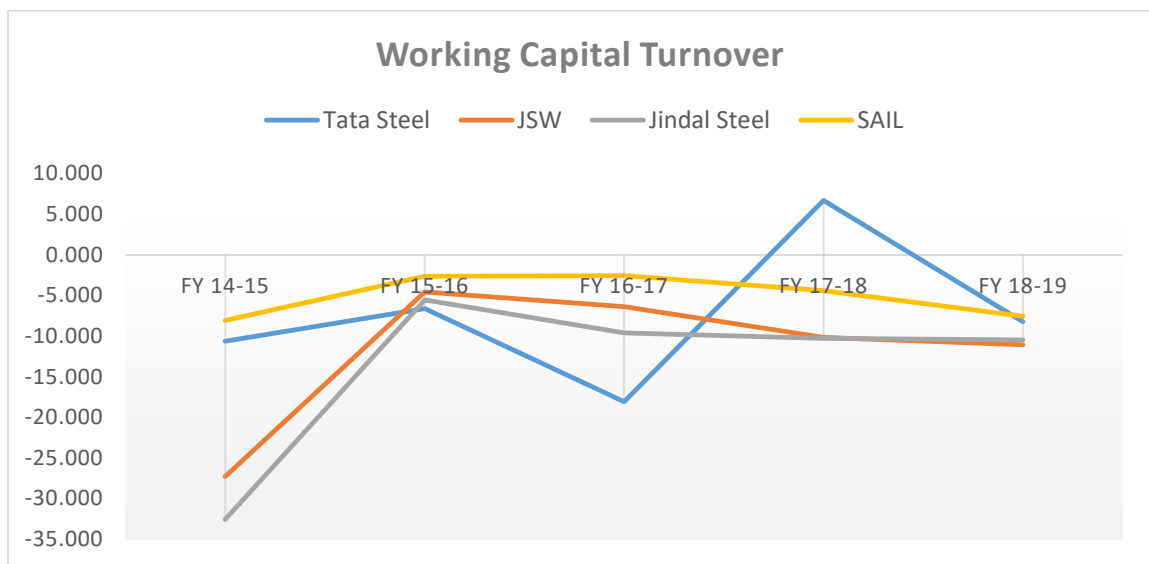
Current Asset Turnover Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	3.319	2.555	2.648	1.747	4.145
JSW	2.227	2.838	2.993	3.143	2.521
Jindal Steel	3.469	4.045	6.030	6.231	7.494
SAIL	1.402	1.579	2.085	2.043	2.190



The current asset turnover ratio for Tata Steel has increased by 30% in FY 18-19 as compared to FY 17-18. This increase is mainly due to reduction in current asset (in denominator of the ratio). The previous investments forming current assets were sold which could be seen from Cash flow Statement of investing activities from annual report of FY 2018-19, (Purchase) / Sale of current investments (net positive value shows the sale of current investment).

WORKING CAPITAL TURNOVER COMPARISON

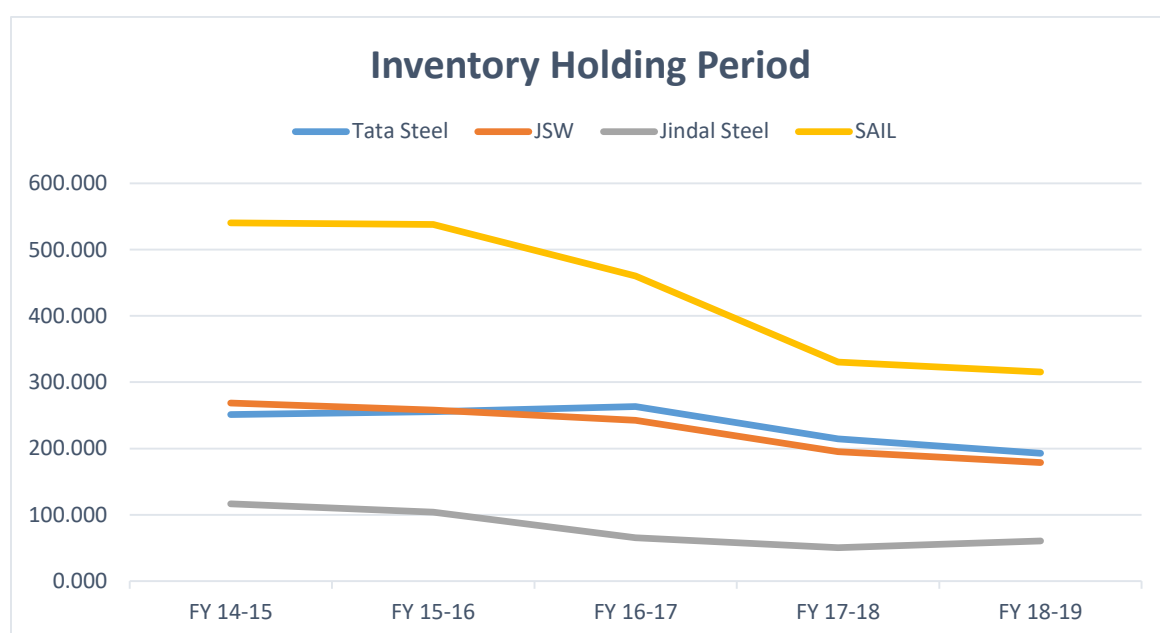
Working Capital turnover					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	-10.647	-6.612	-18.080	6.697	-8.251
JSW	-27.291	-4.584	-6.394	-10.168	-11.052
Jindal Steel	-32.596	-5.535	-9.627	-10.299	-10.484
SAIL	-8.089	-2.638	-2.563	-4.392	-7.544



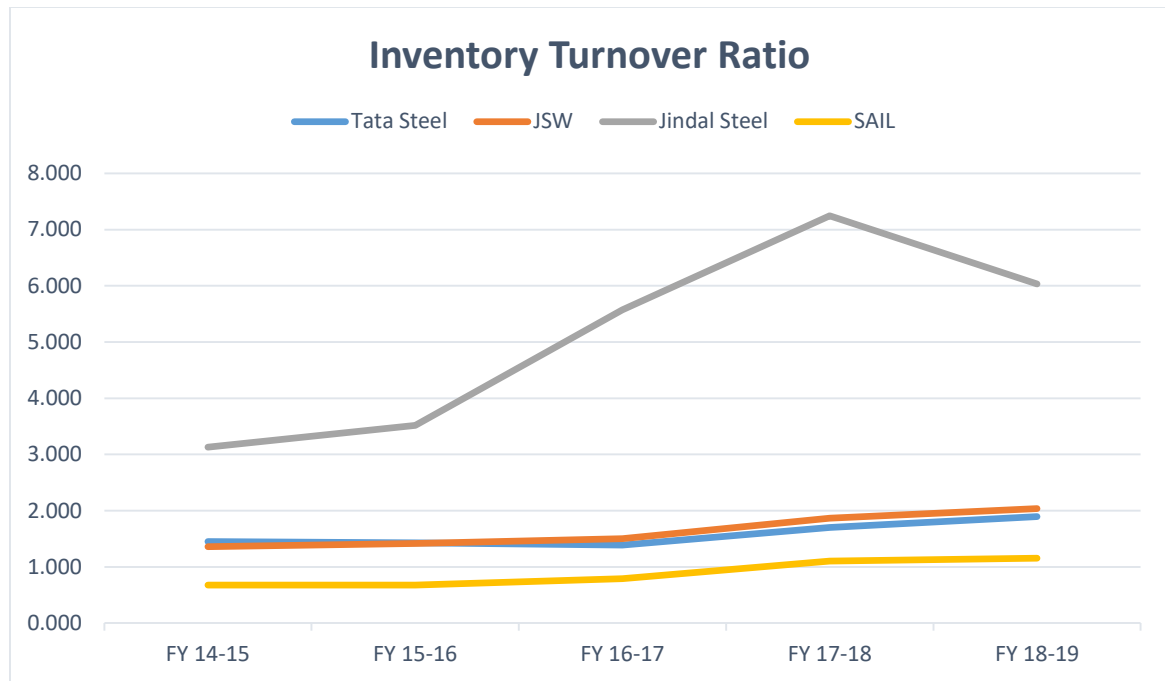
There has been a negative trend of the Working Capital Turnover among all the major players in the market. Although this may exhibit an equitable performance of the competitors but is not the case. Tata has a negative working capital turnover due to the delayed payment period (which is a positive sign even though it adds on to the current liabilities); whereas that of its competitors is due to other factors, that reduce their liquidity.

INVENTORY HOLDING PERIOD & TURNOVER RATIO

Inventory Holding Period					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	251.354	255.372	263.174	214.718	192.752
JSW	268.560	257.959	242.535	195.446	178.928
Jindal Steel	116.540	103.746	65.528	50.355	60.494
SAIL	540.427	537.843	460.341	330.335	315.259



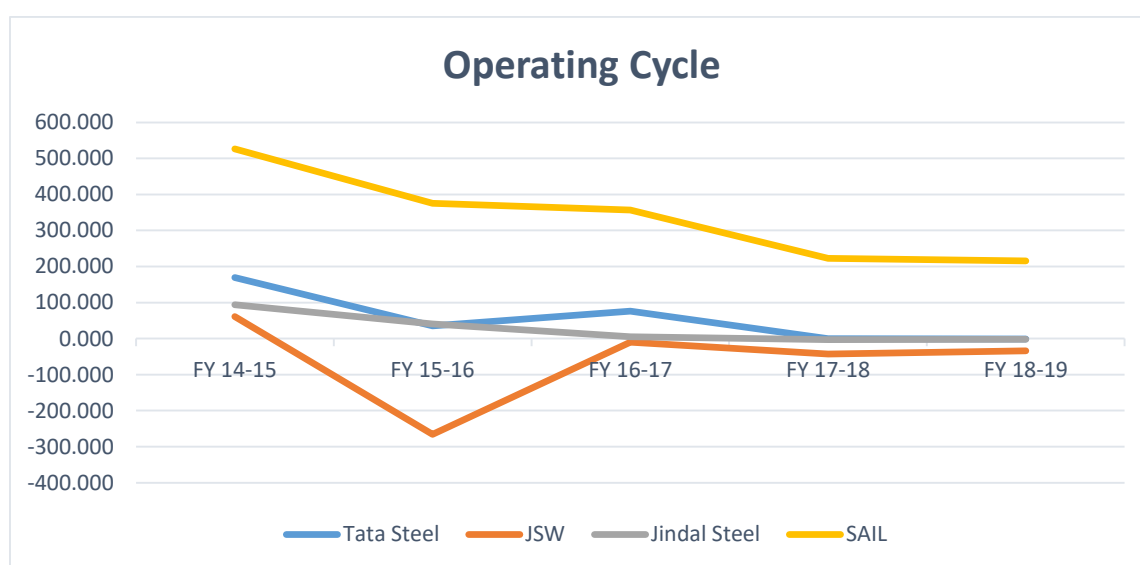
Inventory Turnover Ratio					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	1.452	1.429	1.387	1.700	1.894
JSW	1.359	1.415	1.505	1.868	2.040
Jindal Steel	3.132	3.518	5.570	7.249	6.034
SAIL	0.675	0.679	0.793	1.105	1.158



This ratio is indirectly proportional to the size and scale of operations of the company, i.e. with the increase in size of the company, the ratio tends to decrease. Therefore, if we see, the major players, with a massive production capacity like SAIL and Tata, have a minimal ratio, i.e. 1.15 and 1.89 respectively and high inventory holding period of 315 and 214 days respectively. This when seen in the newer, more efficient players, whose capacity is not yet at its peak are able to sell most of they produce in a lesser period, thus JSW and Jindal Steel have a turnover Ratio of 2.04 and 6.03 respectively and a holding period of 179 and 60.5 days respectively. So, even though Tata's Inventory performance is not as efficient as its competitors, it is justifiable to an extent. But it can increase cash conversion cycle, which is not good for a company.

OPERATING CYCLE / CASH CONVERSION RATIO

Operating Cycle					
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Tata Steel	169.143	35.321	76.008	-0.460	-0.836
JSW	60.690	-265.996	-10.028	-42.527	-33.919
Jindal Steel	93.878	40.521	5.218	-2.805	-2.001
SAIL	526.250	375.189	356.721	222.607	215.691



The Operating cycle of Tata Steel, SAIL and Jindal steel has seen a decreasing trend in the past 5 years. From the above data, it can be depicted that amongst all the 4 companies, JSW is most the efficient in terms of its cash conversion cycle. Except for the financial year 2014-15, it is able to maintain a negative cash conversion cycle, implying that the payment period is higher than the sum of collection period and inventory holding period. A negative cash conversion cycle helps in the optimal utilization of cash of a company. SAIL has the weakest numbers as the operating cycle days are very high.

10.4. Observations on Possible market conditions

(given the current Covid-19 scenario - a comparison with similar crisis' in the past)

To estimate and predict the market conditions post the Covid-19 phase, apart from the secondary research, we also looked at a similar condition in the past - The Financial Crisis or Sub- Prime Crisis of 2007-08. It is similar to the current scenario in several ways such as: its global impact, unemployment, decreased general demand and a liquidity crunch in the market.

During 2007- 08, market had crashed due to increase in mortgage as the mortgage holders were unable to pay loans resulting in the crisis. India was not primarily affected by the Sub- prime crisis as it had not invested in any sub- prime assets. But, during the period, Reserve Bank of India had increased Repo rate and Cash Reserve Ratio Rate to combat inflation, which resulted in slowdown. Also, the financial crisis of Western Europe and US resulted in FII (Foreign Institutional Investors) and foreign investors to liquidate their investments in India, leading to collapse the stock market. (Annual Report)

There had been a lack of liquidity due to above reasons, drying up the consumer credit and working capital, leading to reduction in demand and decreasing ability of the companies to continue its operations efficiently. In Covid-19 pandemic, the condition of liquidity crunch prevails and along with it, scarcity of migrant workers can further affect the projects, especially construction and real state – which would directly impact the cement and steel industry.

In 2007-08, there was a contraction in construction projects and automobiles, which are the major consumers of steel. The crisis decreased Tata Steel's (India) operations by 11%. The major measures that it took during the period

was: Cost reduction, Process improvement and production rationalization. The company took approximately 12-18 months to revive itself from the crisis.

World Steel 2007- 2010 Report Analysis Result:

World Steel Report Analysis 2007 - 2010	
Year	Change in Production from Previous Year
2007	7.27%
2008	-0.37%
2009	-8.39%
2010	13.54%

According to the analysis of the data given in World Steel Report 2007-2010, when the financial crisis had begun, i.e. in the year 2007, there was an increase in production of 7.27 %. When the price reached at its peak, i.e. during the third quarter of 2008, the cumulated increase in production of year 2008 had decreased by 0.37 %. When the crisis ended, and the world moved out of it i.e. in the year 2009, there were a drastic decrease in production of 8.39 %. When the world become stable in the year 2010, the production increased by 13.54 % (as can be seen in the table above) which was the highest increment in the past years. (World Steel, 2020)

The third quarter of financial year 2019 saw the slowdown in the economy due to decrease in growth of automobile sector. And, in the fourth quarter, i.e. in January 2020, the world was hit by the Covid-19 pandemic. At the end of the fourth quarter, the world stood still because many countries had announced lockdown. Businesses were closed as movement of people was also not allowed, resulting in further slowing of activities. In the first quarter of Financial Year 2020, there were some allowance given to movement of people and business was allowed to restart, but if we forecast the present scenario relating to the past instances, as George Santayana once said “Those who do not remember the past are condemned to repeat it”, the production would

decrease as in 2009 (when the world had just come out of crisis). The Indian Steel has forecasted the demand to go down by 7.7% and the recovery would most probably be seen in the year 2021. The possible reasons of decrease in demand and production can be: (Mazumdar, 2020)

- a) Liquidity Constraints: The cash circulation in the market has decreased, people are less willing to spend. Therefore, the liquidity constraints, particularly for Working Capital needs, cannot be accomplished overnight. The Capital Expenditure on new projects would also be decreased.
- b) Lack of Migrant Labors: Due to the lockdown, many migrant workers of manufacturing and construction businesses went back home as the construction work in infrastructure development and in real estate are temporarily halted. These businesses account for majority of steel use. The recovery is expected to be weak as most workers are also a part of agrarian economy. They are expected to take part in farm activities due to upcoming harvest and sowing season. After monsoon ends, we can expect the faster recovery in the construction sector, thereby, steel producing sectors.
- c) Lack of Capital Expenditures: The railways sector, in the past years, was growing faster, steel was also used at a large quantity. But the sector is mainly driven by capital expenditure in new projects. This is also likely to drop due to drop in revenue earning of this sector.
- d) Availability of Inventories: Companies who already had inventories for construction or other purposes and were likely to use it during the period of Mid-March until lockdown, will use it first when lockdown ends, resulting in decreased sales for Production industries.

11. Government Policies:

11.1. Anti-dumping duty and its effects on Steel industry:

Dumping is a process through which a company or a country export its inferior goods at a price, lower than what they are selling at in their domestic market. Dumping can adversely affect an economy in several ways, such as (a) pushing the consumers to consume products which they rather not consume, (b) loss to the domestic manufacturers, producing at a higher cost, (c) an another country gets to control the market-share and thus the supply and consumption pattern of the residents of the home country. Usually, a developed or economically strong country dump their unwanted commodities to the weaker economies, exercising their power and autonomy. For instance, China dumps steel to Indian market, and dumps electronic products to South-East Asian countries. (Economic Times, 2020)

Governments try to avoid dumping at all costs. To do so, they put an anti-dumping duty which is a tariff that a domestic government puts on the imports when imports cost is cheaper than their production cost and/or cheaper than the fair market value. Anti-dumping duty is a way to reduce the foreign competitors in the domestic market and increase the domestic jobs.

Companies like Essar Steel, Steel authority of India, JSW Steel and Tata Steel had approached the government and filed the petition for the imposition of anti-dumping duty. The anti-dumping duty had come in August 2016 was for 5 years. The imposition was on 47 products. Again, the petitioners had filed a joint petition to the government, seeking relief from the cheap imports from the neighboring countries such as China, Korea, Japan, Brazil, Russia and Ukraine. The petition comes followed by Trump's decision to increase the tariffs on imported steel as this poses threat of increased dumping in India.

In June 2020, anti-dumping duty was levied on flat rolled product of steel coming from China, Vietnam and Korea. This will benefit the domestic businesses as:

- a) An increased price of the imported goods would reduce their demand in the domestic market, giving an edge to the domestic players.
- b) It would also reduce the competition in the market for the specific commodity, making the manufacturers more profitable
- c) As the demand for the domestic products increase, so will the production and the employment opportunities of the residents of the country.

11.2. Amendment in Mining Policies:

In April 2020, The Parliament had passed the Mining Law (Amendment) Bill, bringing an end to captive mining, and opening doors for Commercial Coal Mining. Before we dwell into the topic, let us first understand the difference between the two.

Captive Coal Mining means that the company mining the coal must be the end-user of the raw material and could not use it to sell in the market. Captive Coal Mining companies include power generating, cement and Iron and Steel Industries, who used coal as a raw material for power generation. Commercial Coal Mining would mean that a company would just be responsible for extraction of coal and supplying it in the market. Until very recently, Coal India Ltd. enjoyed a monopoly in commercial coal mining. But according to the new laws, any private player, irrespective of whether they need the coal or not, and whether they operate in the industries related to coal (power supply and steel) or not, could claim the right to the coal mines through auctions. (Iyengar, 2020)

India remains underexplored and is not aware of much of its mineral wealth as till now only deposits with exploration data categorized as G2 under United Nations Framework Classification of mineral reserves were being auctioned,

which has been changed to G4 by the new policy. This would mean that more land could be auctioned, creating more room for exploration, which could potentially lead to more discovery, more extraction and more easy and economical availability of coal. However, Centre of Indian Trade Unions (CITU) stated that the step would have ‘disastrous’ consequences. This could be very much the case if we look at the issue from the perspective of the giants in the steel industry, who have mining rights (especially, Tata Steel) in the following ways,

- Tata till now enjoyed the privilege of self-extraction of the raw materials, and not through a third party or middlemen. Whereas the other small and medium scale steel manufacturers had to purchase the same from Coal India Ltd. at a much higher price. First of all, Coal India was state-run, and secondly, it had a monopoly in supplying it commercially, making it inefficient - the price of which was borne by the purchasers of coal. With the implementation of the new policy, private parties can extract and supply the same much efficiently (thus, at a much lower price). Basically, Tata Steel’s small and medium scale competitors (the local companies) would be better-off, which could potentially reduce its market-share in the near future.
- Making things worse, Captive Coal Mining has been ended, thus meaning that Tata would most probably have to purchase coal from another firm. Even if it purchases the rights to mining, the prices would be very competitive and could involve a middleman, increasing its cost of production.

Moreover, some coal mines are being auctioned, making room for companies which till date were not into mining, to also participate in the industry. This step has been taken to increase the ease of doing business i.e. having simpler regulations for doing business in India. This will increase the Foreign Direct Investment (FDI) in the mining sector.

On one hand, this would increase the efficiency of the Coal industry in general by increasing the participation of the private companies and thus increasing the efficiency. This would in return decrease the production costs of the industries that use coal as their raw material (including the steel industry), except some companies such as Tata Steel, who till date use to extract the mineral directly (without the involvement of any middlemen to purchase it). So, even though the measure would benefit the steel industry, the major players who owned mining rights would be an exception. The step is also being criticized by the environmentalists as the increased efficiency would mean a greater demand and a higher consumption and a rapid exploitation of the mineral. The policy also brought in several changes which would adversely impact Tata Steel, such as reducing the life of captive mining by 5 years. So, Tata Steel, which till now had the rights till 2030 would now be reduced to 2025. When the government imposed such changes, the Indian Steel Association didn't oppose it, even though the body was very much aware of the consequences it would have on Tata Steel – this led the Managing Director of Tata Steel, who was also the President of ISA to resign from the association.

12. Recommendations:

- 12.1. Company should work on current ratio as it is lowest for Tata Steel as compared to its competitors. This can affect the company's operations at the time of pandemic when there is liquidity crunch in the market.
- 12.2. Tata Steel should reduce its cash conversion cycle so that cash can be utilized optimally. It can be achieved by reducing inventory holding period that is around 250 days for the FY 18-19.

13. Conclusion

Over the past weeks, by doing an in-depth analysis of the financial statements of Tata Steel and its competitors, by doing secondary research in terms of the reports and articles on the steel industry and crisis analysis, we were able to draft this project. The major conclusions of the project are:

1. Analysis of financial statements – Tata Steel, in general, has a low liquidity and working capital for which the minimal debtor days and large creditor days is responsible. Moreover, the inventory turnover is not as efficient as its competitors, which is to an extent justifiable given its size, and scale of operations. Most ratios of Tata Steel were below the assumed industry average. (this is discussed in the sections 6.3 and 6.4).
2. Crisis Analysis – right before the pandemic, Tata Steel acquired Bhushan Steel and Usha Martin by selling its financial assets such as investments in different mutual funds, which would prove to be a great move post the lockdown. This was explained using the example of acquisition of Corus, a steel making company in London, United Kingdom, right before the financial crisis of 2008, which turned to be much beneficial for the company by making them sufficient with the raw materials, which would also be the case with the current acquisitions. In 2008, during the crisis, there were sharp reductions in Working Capital and spend management; and improvements in the production efficiency. Moreover, Capital expenditure had been re-prioritized on value creation, the net working capital was reduced, and the inventories had been liquidated. These measures could also be implemented in the current scenario.

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