



## FINANCIAL PERFORMANCE OF INDIAN RAILWAY

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### ABSTRACT

*Indian railway is a popular mode of transport in India. It provides comfortable journey to every class of people. It is very helpful in transferring heavy & large materials like jute, cement, petroleum etc. from one part of the country to another part. It is the world's largest government-owned monopoly, annually carrying passenger numbers that surpass the global population. It is world's fourth largest rail network after the U.S.A., China, and Russia, and is managed by a separate Ministry of Railways. The operating ratios have consistently been around 90% in the past several years, indicating that that the capability to generate operational surplus is low. Further, its expenditure on staff and their pensions has been increasing. Consequently, capacity growth is increasingly being funded through borrowings, which threatens to further worsen the financial situation. Thus, Railway services in India are often perceived as being inefficient and unsatisfactory. This paper shows a review of assets and liabilities of Indian Railways. This paper is focused on total assets and total liabilities of Indian Railway. The study is entirely based on secondary data that is from annual reports of Indian railway. Share capital, Reserve and Surplus, Current liabilities, Current Assets and Fixed Assets are mentioned. The study covers the period of seventeen years (from year 2005 to year 2021) and discusses ups and downs within this area.*

**Keywords:** *Indian Railway, Foreign Direct Investment, Assets, Liabilities, Passenger revenue, Freight revenue.*



## INTRODUCTION

Transport is an important infrastructure in maintaining and developing any economic activity. Rail transport occupies a very important place in surface transport, particularly in a country like India, which is not endowed with much of waterways and has a very large size. Rail transport assumes a greater importance in our country, particularly in view of limited resources of natural oil and abundant availability of coal, an energy source easily usable for rail transport, whether directly or indirectly, through electric energy indigenous or imported. Railways have a positive edge over road, being many times more energy efficient. Notwithstanding disadvantages like being track bound, highly capacity intensive, Railways have played a critical part in the country's economic development. Though road transport has progressed much faster during the post-independence era, Indian Railways still continue to play a major role in the transport effort required by the nation. From Bombay to Thane, the first railway on the Indian subcontinent ran for 21 miles. During a visit to Bhandup in 1843, Mr. George Clark, the Bombay Government's Chief Engineer, had the idea of building a railway to connect Bombay with Thane, Kalyan, and the Thal and Bhore Ghats inclines. The ceremonial inauguration event took place on April 16, 1853, when 14 railway coaches carrying roughly 400 visitors left Bori Bunder at 3.30 p.m. "amidst the loud applause of a great throng and the salute of 21 cannons," according to the inaugural programme. The first passenger train steamed out of Howrah station destined for Hooghly, a distance of 24 miles, on 15th August, 1854. Indian Railway consist a widespread network controlled by single management, separate both ministry and annual budgetary. Further, it is also considered as Asia's largest and world's fifth largest railway network after United States of America, Russia, China, and Canada. The Indian Railways plays a vital part in the country's socioeconomic development. The Indian Railway not only has a specific place in the country's socioeconomic map, but it is also regarded as a vehicle and gauge of the country's financial prosperity. The Indian Railway is the major form of transportation for long-haul freight, long-distance passenger traffic, and suburban mass rapid transit." Freight and passengers are considered as key business operations. At present Indian Railways runs around 11,000 trains every day, of which 7,000 are passenger trains and it consists 7566 - locomotives, 37,840 - Coaching vehicles, 222,147 - Freight wagons, 6853 - Stations, 300 - Yards, 2300 - Good



sheds, 700 - Repair shops, 1.54 million - Work force. This paper deals with the progress of Indian Railways from 2005 to 2021.

## **CURRENT STATUS OF INDIAN RAILWAYS**

Indian Railways is among the world's largest rail network, and its route length network is spread over 67,956 kms, with 13,169 passenger trains and 8,479 freight trains, plying 23 million travellers and 3 million tonnes (MT) of freight daily from 7,349 stations. India's railway network is regarded as one of the world's largest railway systems managed by a single entity. Apart from being an energy efficient and cost-effective form of transportation and transport, the railway network is perfect for long-distance travel and the transit of bulk commodities. Indian Railways is the country's preferred mode of transportation for automobiles. The Indian government has prioritised railway infrastructure investment by enacting investor-friendly laws. It has moved fast to allow **Foreign Direct Investment (FDI)** in railways in order to improve freight and high-speed train infrastructure. Several domestic and international firms are currently exploring to participate in Indian rail projects.

Revenue growth has been strong over the years. The gross revenue of Indian Railways was Rs. 174,660.52 crore (US\$ 24.78 billion) in FY20. Freight earnings in FY20 stood at Rs. 113,487.89 crore (US\$ 16.24 billion). In FY20, Indian Railways earned Rs 50,669.09 crore (US\$ 7.25 billion) from passengers. Between April 2020 and February 2021, total passenger revenue was Rs. 12,409.49 crore (US\$ 1.70 billion), compared to Rs. 48,809.40 crore (US\$ 6.7 billion) for the same time the previous year.

In Financial Year 22, gross revenue was Rs 85,588.96 crore (US\$ 11.44 billion) (until September 2021). Passenger earnings in Financial Year 22 (through September 2021) were Rs. 15,434.18 crore (US\$ 2.05 billion), while freight earnings were Rs. 78,921.86 crore (US\$ 10.5 billion). In Financial Year 21, freight earnings totaled US\$ 16.04 billion. Freight revenues were Rs. 12,312.76 crore (US\$ 1.63 billion) in October 2021, and freight loading was 117.35 million tonnes. The freight segment continues to be the most profitable for Indian Railways, accounting for 79.1% of total income in FY22 (through August 2021), followed by the passenger segment. The freight segment generates the most money for railways, accounting for 65 percent of total revenue in FY20, followed by the passenger segment. Indian Railways had the greatest loading



in freight transportation in FY20-21. In FY21, Indian Railways transported 1,232.64 million tonnes of freight. With this, Indian Railways' freight revenue grew to Rs. 1,17,386 crore (approximately) (US\$ 16.04 billion) in fiscal 2020-21, up from Rs. 113,488 crore (US\$ 16.10 billion) in fiscal 2019-20. Passenger traffic reached 1,526.75 million in FY22 (through October 2021). Freight earnings were \$1.43 billion in August 2021, while freight loads was 110.43 million tonnes. Since August 2020, the Indian Railways has operated 450 Kisan Rail services, transporting approximately 1.45 lakh people. RailTel, a PSU under the Railway Ministry, which provides fast and free Wi-Fi across the Indian Railways network, announced its highest ever consolidated income of Rs. 11,660.05 million (US\$ 158.48 million) for Financial Year 19-20. This income figure is a growth of 12.3% over the consolidated income of the financial year Financial Year 18-19. In June 2021, freight earnings stood at US\$ 1.50 billion, which is 26.0% higher than last year's earnings of US\$ 1.19 billion, and freight loading reached 112.65 million tonnes, which is 11.19% higher than last year's loading of 101.31 million tonnes. In November 2020, India Railways announced that 40% of dedicated freight corridor (DFC) will be opened for traffic by end-FY21, while the entire 2,800 km route will be completed by June 2022. India was among the top 20 exporters of railways globally as of 2017. India's export of railways has grown at a CAGR of 31.51% during 2010-2018 to US\$ 507.90 million. Exports of railways in 2019E stood at US\$ 635 million. Indian Railways is developing and creating technology in areas such as signaling and telecommunication with 15,000 kms being converted into automatic signaling and 37,000 kms to be fitted with 'KAVACH', the domestically developed Train Collision Avoidance System (**Railways Budget 2021-22**).

## REVIEW OF LITERATURE

**Ankita Singla and Balbir Singh (2020)** the researchers concludes that growth of Indian railways is satisfactory for total investment, total capital, number of passengers originating, number of stations etc. but net revenue receipts and number of employees employed are showing negative growth

**Asma Khan et.al (2015)** the researchers concludes that the total earnings have increased at a faster rate than the total working expenses during the study period. As far as net profit ratio is concerned, it has showed a rising trend till 2007-08 and started declining after that showing a



poor performance. Similarly, it has been observed that the operating ratio continuously declining till 2007-08 reflecting a very good performance but after that again started rising showing a pathetic performance. Hence, it is recommended that the gross earnings need to be increased as well as the working expenses need to be reduced for improving the Indian Railway operating and net profit ratios.

**Nitin Gopalkrishnan et al.(2015)** According to the researchers, the new government has made steps to encourage foreign direct investment, public-private partnerships, and a new dynamic Tatkal plan for the growth of train infrastructure and consumer demand. The Ministry of Railways' decision to raise fares was motivated by the need to enhance revenue from passenger and freight operations without jeopardising consumer surplus. The main causes of diminishing profitability were extremely high overloads, additional expenses, and a poor pace of income creation, as well as the country's terrible economic situation from 2007 to 2010. After 2010, the organisation was boosted by the resurgence of the Indian economy.

The previous studies shows the positive stride on capital expenditure on railways, earnings are good and the new initiatives of Foreign Direct Investment and Public Partnership models while the researcher would like to project a critical evaluation of assets and liabilities of Indian Railways based on Trend model.

## METHODOLOGY OF THE STUDY

The main objective of this study is to analyse the financial performance of the Indian Railway by Trend Analysis. Secondary data were used for analysis and were taken from Indian Railway Website, books and journals.

**Table 1 Trend on the total Liabilities of Indian Railways**

Year	SC	Trend on SC	R&S	Trend on R & S	NCL	Trend on NCL	CL	Trend on CL	TC & TL	Trend on TC & TL
2005	232.00	100	2160.91	100	18,057.13	100	679.11	100	21129.15	100
2006	232.00	100	1,863.76	86	21,022.54	116	439.54	65	23557.84	111
2007	500.00	216	1,621.25	75	23,504.31	130	600.42	88	26225.98	124
2008	500.00	216	1,925.76	89	25,953.22	144	813.8	120	29192.79	138
2009	800.00	345	1,980.70	92	29,645.26	164	985.36	145	33411.32	158
2010	1,091.00	470	2,314.48	107	36,075.60	200	1183.02	174	40664.10	192
2011	1602.00	691	2683.97	124	37448.04	207	4976.37	733	46710.38	221
2012	2352.00	1014	3,048.53	141	49,987.98	277	5200.79	766	60589.30	287



2013	2,952.00	1272	3,442.28	159	55,967.31	310	8,393.45	1236	70755.04	335	
2014	3,583.96	1545	3,978.08	184	69,258.16	384	7,109.82	1047	83930.02	397	
2015	4,126.45	1779	4,555.15	211	66,747.57	370	12,217.82	1799	87646.99	415	
2016	4,526.00	1951	6,998.89	324	82,051.32	454	14,823.72	2183	108399.93	513	
2017	6,526.46	2813	5,483.14	254	104,842.55	581	12,797.48	1884	129649.63	614	
2018	6,526.46	2813	7,038.75	326	123,295.85	683	25,471.07	3751	162332.13	768	
2019	9,380.46	4043	15,648.19	724	173,952.26	963	7,622.70	1122	206603.61	978	
2020	11,880.46	5121	19,081.97	883	155,336.48	860	89,635.26	13199	275934.17	1306	
2021	13,068.51	5633	22,844.88	1057	179,983.87	997	162,154.47	23877	378051.73	1789	
Average	4110.57	1772	6274.75	290	73,713	408	20888	3076	104987	497	
r	0.96				0.72						

Source: Compiled from the Annual Reports of Indian Railways

Note: SC= Share Capital; R&S= Reserves and Surplus; NCL=Non-current liabilities; CL= current Liabilities; TC&TL= Total capital and Liabilities

The above table describes the total liabilities of Indian Railway. The liabilities of the Indian Railway have raised from 21129.15 Crores in the year 2005 to 378051.73 Crores in the year 2021. The trend analysis shows a growth rate of 1689 percent with an average growth rate of 397 percent. The degree of relationship of share capital and Reserve & Surplus over the year is calculated as a high positive Correlation of 0.96 and the same non-current liabilities and current liabilities have the positive correlation of 0.72.

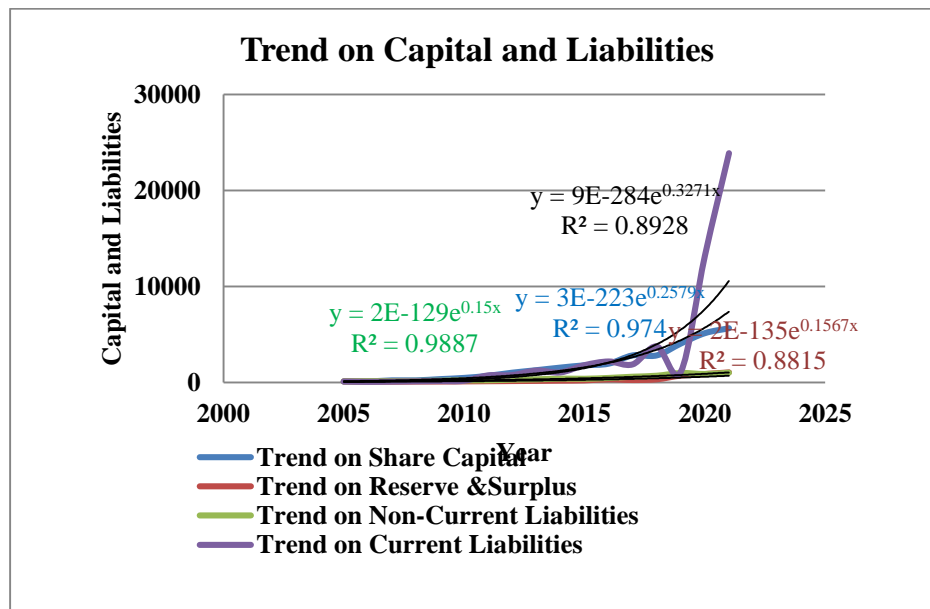


Figure 1: Trend on capital and liabilities



The trend percentage calculated in this regard share capital, Reserve & Surplus, Non Current Liabilities and Current Liabilities is high in the year 2021 the growth percentage of the same is 1672,190,308, 2976. The trend line is positive with an exponential growth rate of 25.7 percent, 15.6 percent, 15 percent, 32 percent and 0.97, 0.88, 0.99, 0.89 as the co-efficient of determination

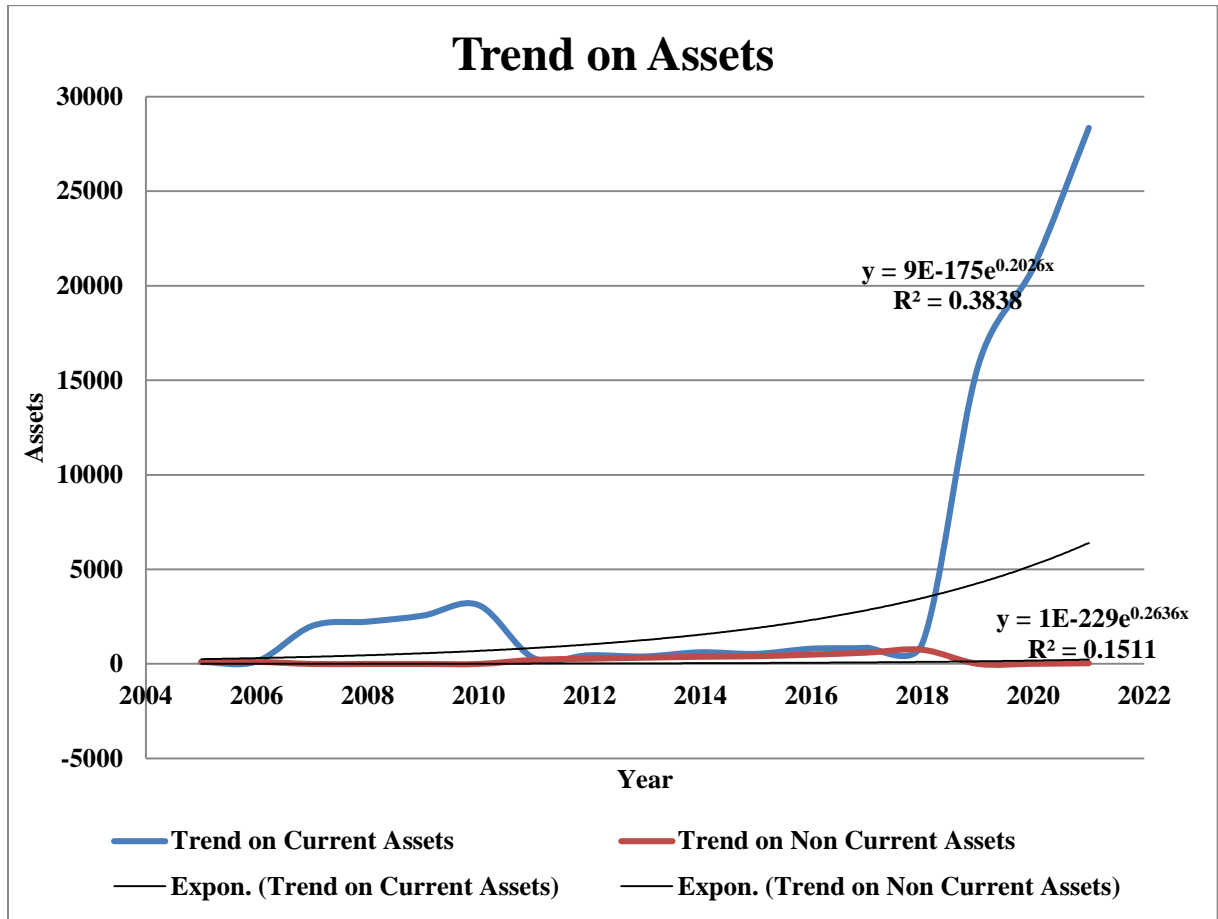
**Table 2 Trend on the total Assets of Indian Railways**

Year	Current Assets	Trend on Current Assets	Non Current Assets	Trend on Non Current Assets	Total Assets	Trend on Total Assets
2005	1,306	100	19,823	100.00	21,129	100
2006	1,642	126	21,915	110.56	23,558	111
2007	26,209	2006	17,000	0.08	26,226	124
2008	29,176	2234	16,000	0.08	29,193	138
2009	33,361	2554	50,000	0.25	33,411	158
2010	40,647	3112	17,000	0.09	40,664	192
2011	3,891	298	42,819	216.01	46,710	221
2012	5,986	458	54,603	275.45	60,589	287
2013	5,165	395	65,590	330.88	70,755	335
2014	8,010	613	75,920	382.99	83,930	397
2015	6,932	531	80,715	407.18	87,647	415
2016	10,494	803	97,906	493.91	108,400	513
2017	11,087	849	118,562	598.11	129,650	614
2018	14,106	1080	148,226	747.75	162,332	768
2019	205,047	15697	1,557	7.85	206,604	978
2020	273,864	20965	2,070	10.44	275,934	1306
2021	370,214	28341	7,838	39.54	378,052	1789
Average	61,597	4715	43,391	218.89	87,921	497
			-0.42			

**Source: Compiled from the Annual Reports of Indian Railway**



The above table describes the total assets of Indian Railway. The assets of the Indian Railway have raised from 21,129Crores in the year 2005 to 378,052Crores in the year 2021. The trend analysis shows a growth rate of 1689 percent with an average growth rate of 397 percent. The degree of relationship of Current Assets and Non Current Assets over the year is calculated as a negative Correlation of -0.42



**Figure 2: Trend on Assets**

**FINDINGS:**

This paper has provided an overview of the performance of Indian Railways in terms of its gross earnings and working expenses. It is found that the total earnings have increased at a faster rate than the total working expenses during the study period. As far as net profit ratio



is concerned, it has showed a rising trend till 2007-08 and started declining after that showing a poor performance. Similarly, it has been observed that the operating ratio continuously declining till 2007-08 reflecting a very good performance but after that again started rising showing a pathetic performance. Hence, it is recommended that the gross earnings need to be increased as well as the working expenses need to be reduced for improving the IR operating and net profit ratios

The trend percentage calculated in this regard Current Assets and Non-Current Assets is high in the year 2021 the growth percentage of the same is 28241 and -60.46. The current Asset trend line is positive with an exponential growth rate of 20.2 and the Non-Current Asset trend line is negative with an exponential growth rate 26.3percent and 0.38, 0.26 as the co-efficient of determination

### **CONCLUSION:**

This paper has provided an overview of the performance of Indian Railways in terms of its assets and liabilities. . The liabilities of the Indian Railway have raised from 21129.15 Crores in the year 2005 to 378051.73 Crores in the year 2021. The trend analysis shows a growth rate of 1689 percent with an average growth rate of 397 percent. The degree of relationship of share capital and Reserve and Surplus over the year is calculated as a high positive Correlation of 0.96 and the same non-current liabilities and current liabilities have the positive correlation of 0.72. The assets of the Indian Railway have raised from 21,129Crores in the year 2005 to 378,052Crores in the year 2021. The trend analysis shows a growth rate of 1689 percent with an average growth rate of 397 percent. The degree of relationship of Current Assets and Non-Current Assets over the year is calculated as a negative Correlation of -0.42

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