

Chapter 1 State of Finances

This chapter provides a broad perspective on the finances of the Indian Railways during 2019-20. It analyses critical changes in the major financial indicators with reference to the previous year, as well as the overall trends. The base data for this analysis is the Finance Accounts of the Indian Railways (IR). The Finance Accounts is compiled by IR annually for incorporation in the Union Government Finance Accounts. In addition, data from government documents and reports¹ have also been used to analyse performance of Indian Railways during 2019-20.

1.1 Summary of Current Year's Fiscal Transactions

The following Table presents the summary of Indian Railways fiscal transactions during 2018-19 and 2019-20. The figures in brackets in the Table represent the increase/decrease in percentage over previous year.

Table 1.1 – Summary of receipt and expenditure during 2019-20 (₹ in crore)					
Summary of Capital and Revenue expenditure					
S. No.	Details	Actual 2018-19	Budget Estimates 2019-20	Revised Estimates 2019-20	Actual 2019-20
1.	Capital Expenditure ²	1,33,376.66	1,60,176.00	1,56,351.97	1,48,064.48
2.	Revenue Expenditure	1,86,733.51	2,07,900.00	2,02,458.00	1,73,105.07
Summary of Revenue Receipts and Revenue Expenditure					
1	Passenger Earnings	51,066.65 (4.98)	56,000.00	56,000.00	50,669.09 (-0.78)
2	Other Coaching Earnings ³	4,474.46 (3.71)	6,000.00	6,000.00	4,640.79 (3.72)
3	Freight Earnings	1,27,432.72 (8.87)	1,43,000.00	1,34,733.00	1,13,487.89 (-10.94)
4	Sundry Earnings ⁴	6,996.23 (-19.47)	11,575.00	9,000.00	5,862.75 (-16.20)
5	Total Traffic Earnings	1,89,970.06	2,16,575.00	2,05,733.00	1,74,660.52
6	Clearance from Traffic Outstanding (Suspense)	(-) 63.48	100.00	100.00	(-) 303.92
7	Gross Traffic Receipts⁵ (Item No.5+6)	1,89,906.58 (6.26)	2,16,675.00	2,05,833.00	1,74,356.60 (-8.19)

¹ Budget documents, Annual Statistical Statements of Indian Railways

² Capital expenditure includes expenditure from Gross Budgetary Support, Internal Resources and Extra Budgetary Resources (EBR)

³ Earnings from transportation of parcels, luggage and post office mail etc.

⁴ Earnings from renting, leasing of building, catering services, advertisements, maintenance of sidings and level crossing, re-imburement of loss on strategic lines etc.

⁵ Operational receipts from freight, passenger, other coaching traffic and sundry earnings of IR.

Table 1.1 – Summary of receipt and expenditure during 2019-20 (₹ in crore)					
Summary of Capital and Revenue expenditure					
S. No.	Details	Actual 2018-19	Budget Estimates 2019-20	Revised Estimates 2019-20	Actual 2019-20
8	Miscellaneous Receipts ⁶	600.79 (194.03)	260.00	436.00	338.09 (-43.73)
9	Total Receipts (Item No.7 + 8)	1,90,507.37 (6.47)	2,16,935.00	2,06,269.00	1,74,694.69 (-8.30)
10	Net Ordinary Working Expenses ⁷	1,40,200.30 (9.11)	1,55,000.00	1,51,208.00	1,50,211.21 (7.14)
11	Appropriation to				
	Pension Fund	44,280.00 (-3.31)	50,000.00	48,350.00	20,708.00 (-53.23)
	Depreciation Reserve Fund (DRF)	300.00 (-80.52)	500.00	400.00	400.00 (33.33)
12	Total Working Expenses⁸ (Item No.10+ 11)	1,84,780.30 (5.09)	2,05,500.00	1,99,958.00	1,71,319.21 (-7.28)
13	Miscellaneous Expenditure ⁹	1,953.21 (36.61)	2,400.00	2,500.00	1,785.86 (-8.57)
14	Total Expenditure (Item No.12 + 13)	1,86,733.51 (5.34)	2,07,900.00	2,02,458.00	1,73,105.07 (-7.30)
15	Net Surplus (Item No.9(-) 14)	3,773.86 (126.58)	9,035.00	3,811.00	1,589.62 (-57.88)
16	Surplus available for appropriation to				
	Development Fund (DF)	750.00 (50.19)	1,000.00	1,311.00	1,388.86 (85.18)
	Capital Fund (CF)	0	3,035.00	0.00	0
	Rashtriya Rail Sanraksha Kosh	3,023.86	5,000.00	2,500.00	200.76 (-93.36)

Source: Railway Budget for 2018-19 and 2019-20 and Accounts for 2019-20.

Note: Figures in brackets represent the increase/decrease in percentage over previous year.

As can be seen from the Table 1.1

- Total Receipts decreased by 8.30 per cent during 2019-20 as compared to 6.47 per cent increase in 2018-19. The decrease in 2019-20 was mainly due to decline in Freight Earnings (by 10.94 per cent) and Sundry Earnings (by 16.20 per cent) as compared to 2018-19.
- Net Ordinary Working Expenses increased by 7.14 per cent in 2019-20 as compared to 2018-19. However, the Total Working Expenses decreased by 7.28 per cent as compared to the previous year due to less appropriation to the Pension

⁶ Miscellaneous Receipts comprise of sale of tender documents, liquidated damages and receipts by Railway Recruitment Board etc.

⁷ Operating expenses of IR (Staff salary, repairs & maintenance of assets, fuel etc.)

⁸ Operating expenses and appropriation to DRF and Pension Fund

⁹ Miscellaneous Expenditure comprise of expenditure on Railway Board, Surveys, Research, Designs and Standards Organization, Other Misc. Establishments of IR, Statutory Audit etc.

Fund. The 'Net Surplus' generated after meeting all revenue liabilities, was ₹ 1,589.62 crore in 2019-20 as compared to ₹ 3,773.86 crore in 2018-19. The Railways could show surplus during the year 2019-20, by making less appropriation to Pension Fund than the actual requirement. Had the actual amount (₹ 48,626 crore) required to meet the expenditure on pension payments of Zonal Railways been appropriated to the Pension Fund (instead of ₹ 20,708 crore), the Railways would have ended with a negative balance of ₹ 26,328.39 crore (instead of Surplus of ₹ 1,589.62 crore).

3. The 'Net Surplus' was lower than the Budget Estimates (BE) by ₹ 7,445.38 crore (82.41 per cent). This was due to shortfall in 'Freight Earnings' by ₹ 29,512.11 crore, 'Sundry Earnings' by ₹ 5,712.25 crore and 'Passenger Earnings' by ₹ 5,330.91 crore as compared to the BE.
4. The Net Surplus of ₹ 1,589.62 crore was appropriated to Development Fund (₹ 1,388.86 crore) and Rashtriya Rail Sanraksha Kosh (RRSK) (₹ 200.76 crore). No funds were appropriated to Capital Fund though an amount of ₹ 3,035 crore was envisaged in the BE.

1.2 Resources of IR

IR is financed through (i) budgetary support from Central Government, (ii) its own internal resources and (iii) Extra Budgetary Resources. The main sources of receipts of IR during the year 2019-20 are as follows:

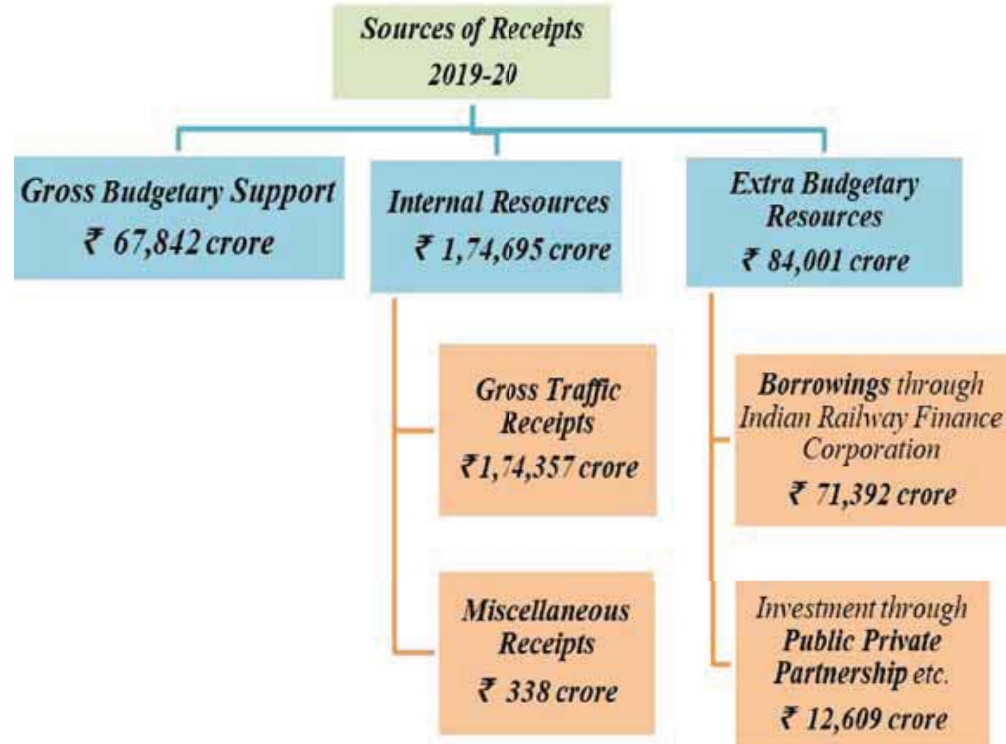


Figure 1.1: Sources of receipts

The share of various resources available for IR during the last five years is shown in the following Graph:

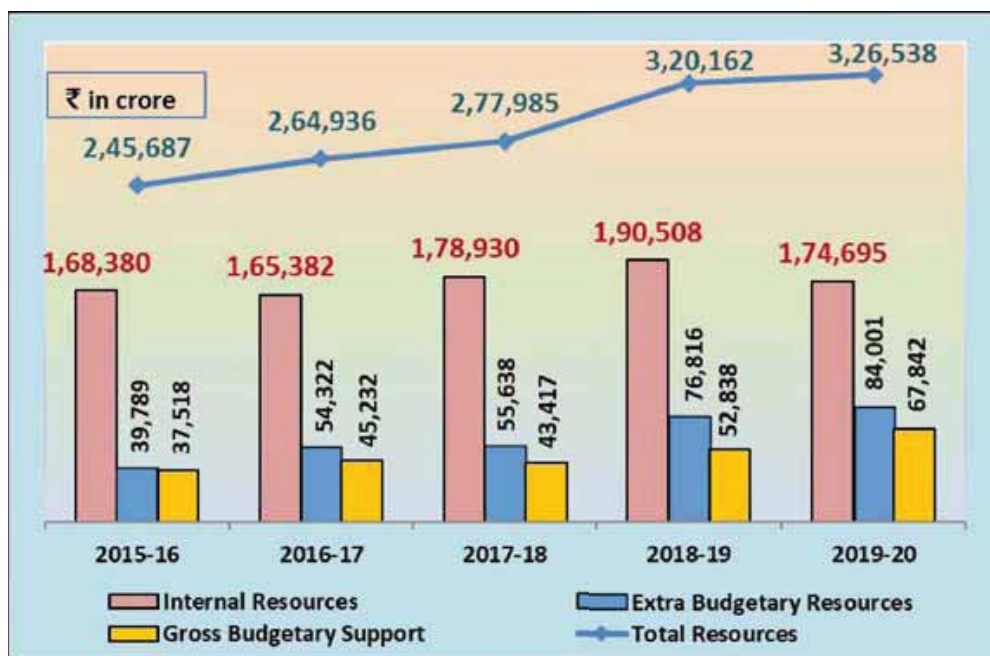


Figure 1.2: Share of various resources of IR during last five years.

The above shows that the largest resource of IR are the internal resources followed by extra budgetary resources (EBR) and GBS. The Railways have been raising EBR through Indian Railway Finance Corporation (IRFC), since its inception in 1987, for procurement of rolling stock. From 2015-16 onwards, MoR also resorted to EBR for project financing.

1.2.1 Extra Budgetary Resources

EBR includes funds raised through IRFC for procurement of rolling stock and for execution of projects of IR. Institutional Finance (EBR-IF) from Life Insurance Corporation of India (LIC) for funding capital projects and funds raised through implementing projects in Public Private Partnership (PPP) mode also form a part of EBR. During 2019-20, IR raised an amount of ₹ 84,001.45 crore through extra-budgetary resources against ₹ 76,816.32 crore raised during 2018-19 (increase of 9.35 per cent). This included ₹ 71,392.07 crore raised through IRFC for procurement of rolling stock and for execution of projects of IR through institutional finance/other market borrowings and ₹ 12,609.38 crore through PPP mode.

Efficiency in application of EBR funds assumes greater significance for Railways Finances due to interest liability. In view of greater dependence on EBR and rising debt burden of MoR a detailed analysis on financing of projects from EBR, was done in CAG's Report on Union Government (Railways) – Railways Finances – No. 8 of 2020.

1.2.2 Gross Budgetary Support

During the year 2019-20, Railways received ₹ 67,841.75 crore as Gross Budgetary Support (GBS) from Government of India against ₹ 52,837.67 crore received during 2018-19. It was 28.40 *per cent* more than the amount of GBS received during the previous year. GBS also included ₹ 17,250 crore received from Central Road Fund (out of diesel cess) during the year 2019-20.

1.2.3 Internally generated resources of Indian Railways

Railways internal resources include earnings from freight and passenger business, sundry earnings, other coaching and miscellaneous earnings. During 2019-20, railways generated total internal resources of ₹ 1,74,694.69 crore against ₹ 2,16,935 crore envisaged in the BE. The Railways could not achieve even RE target of ₹ 2,06,269 crore.

The internal resources are utilized for revenue expenditure and expenditure on replacement and renewal of fixed assets through Depreciation Reserve Fund (DRF).

The trend of total revenue receipts for the last five years is shown in the following Graph:



Figure 1.3: Revenue receipts during 2015-16 to 2019-20

The trend of growth rates of different segments of revenue receipts are discussed in the succeeding paragraphs.

a) Freight Earnings

As against the budget estimates of ₹1,43,000 crore during 2019-20, the actual freight earnings were ₹1,13,487.89 crore. The statistics regarding various parameters of freight services during the past five years were as follows:

Table 1.2 - Freight Services Statistics					
Year	Loading (Million Tonne)	NTKM ¹⁰ (in million) (Revenue Freight Traffic only)	Earnings (₹ in crore)	Average lead ¹¹ in km	Average earnings per tonne per km (in paise)
2015-16	1101.51 (0.57)	654481 (-3.99)	1,09,207.66 (3.23)	594	166.86 (7.52)
2016-17	1106.15 (0.42)	620175 (-5.24)	1,04,338.54 (-4.46)	561	168.24 (0.83)
2017-18	1159.55 (4.83)	692916 (11.73)	1,17,055.40 (12.19)	598	168.93 (0.41)
2018-19	1221.48 (5.34)	738523 (6.58)	1,27,432.72 (8.87)	605	172.55 (2.14)
2019-20	1208.41 (-1.07)	707665 (-4.18)	1,13,487.89 (-10.94)	586	160.37 (-7.06)

Note: Figures in bracket represent percentage increase/decrease over previous year.

During 2019-20, freight loading was 1208.41 Million Tonnes (MT) as compared to the loading of 1221.48 MT during 2018-19. The freight loading decreased by 1.07 per cent during 2019-20 over the previous year. The freight earnings also declined by 10.94 per cent as compared to previous years' growth rate of 8.87 per cent. Due to decline in loading and NTKM, the average lead declined from 605 km in 2018-19 to 586 km in 2019-20.

The Railways freight basket is limited to certain bulk commodities. The commodity wise share in loading and earnings are given in the following Graph:

¹⁰ NTKM-Net Tonne Kilometre-Unit of measure of freight traffic which represent the transport of one tonne goods over a distance of one kilometre.

¹¹ Average Lead - Average haul of a ton of freight.

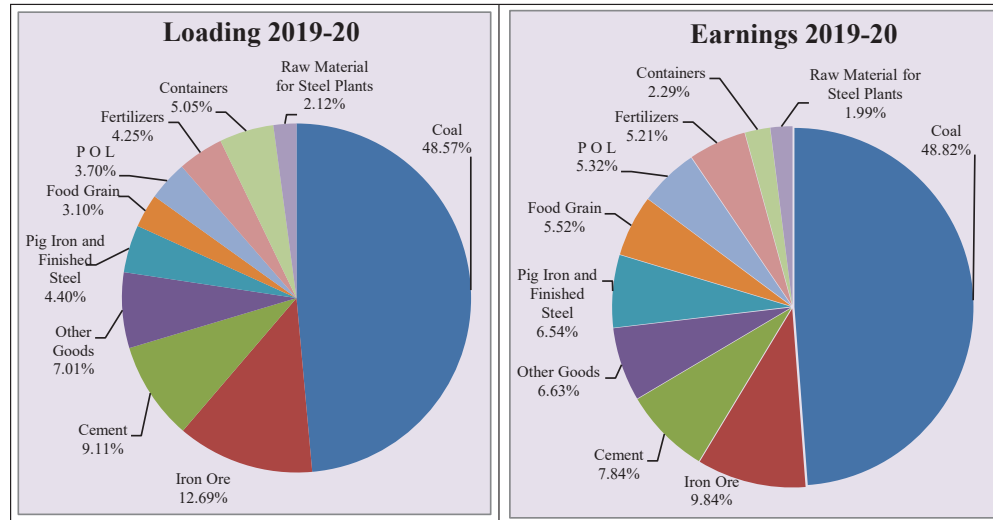


Figure 1.4: Major Commodity-wise share of loading and earnings

The above major commodities contributed to 98 per cent of the total freight earnings (excluding Miscellaneous Goods Earnings). Coal was the major component, both in loading (48.57 per cent) and earnings (48.82 per cent), followed by Iron Ore and Cement. The highest growth in loading was in Iron Ore (11.67 per cent) and POL¹² (3.88 per cent).

As compared to 2018-19, there was shortfall in freight loading by 13.07 million tonnes during 2019-20. Major shortfall in freight loading during 2019-20 was in commodities: Coal (by 18.97 MT), Cement (by 7.24 MT), Other Goods (2.19 MT), Food grains (by 1.78 MT) and Pig Iron & Finished Steel (by 0.86 MT). There was a declining trend in loading of Food grains during the last six years.

As can be seen from the above, there is heavy dependence on Coal transportation. Any shift in the bulk commodities transport pattern could affect the Railways freight earnings significantly. Railways have not been able to diversify their freight basket despite running various incentive schemes for long time.

b) Passenger Earnings

As against the budget estimates of ₹ 56,000 crore for passenger earnings during 2019-20, the actual passenger earnings were ₹ 50,669.09 crore. The growth rate for number of passengers originating and passenger earnings during the past five years is shown below:

¹² Petroleum, Oil and Lubricant



Figure 1.5: Growth rate of number of passengers and earnings

As can be seen from the above Graph, there was a sharp decline in number of passengers originating and passenger earnings as compared to the previous year. Key performance indicators of passenger services are as follows:

Year	Number of Passenger (in millions)	Passenger Kilometre ¹³ (in million)	Earnings (₹ in crore)	Average lead (in kilometre)	Average earnings per passenger per kilometre (in paise)
2015-16	8107.33 (-1.42)	1143039 (-0.36)	44,283.26 (4.96)	140.99	38.74 (5.33)
2016-17	8116.10 (0.11)	1149835 (0.59)	46,280.46 (4.51)	141.67	40.25 (3.90)
2017-18	8285.77 (2.09)	1177699 (2.42)	48,643.14 (5.11)	142.14	41.30 (2.61)
2018-19	8439.06 (1.86)	1157174 (-1.74)	51,066.65 (4.98)	137.12	44.13 (6.85)
2019-20	8085.74 (-4.19)	1050738 (-9.20)	50,669.09 (-0.78)	129.95	48.22 (9.27)

Source-Indian Railways Annual Statistical Statements

Note: Figures in bracket represent percentage increase/decrease over previous year.

As compared to the previous year, the annual growth rate of passengers originating was negative (-4.19 per cent). The shortfall in number of passengers was 4.54 per cent in non-suburban category and 3.91 per cent in suburban category. The passenger earnings also declined by 0.78 per cent in 2019-20 as compared to increase of 4.98 per cent in 2018-19. However, the average earnings per passenger per kilometre increased by 9.27 per cent i.e. from 44.13 paise in 2018-19 to 48.22 paise in 2019-20.

¹³ Passenger Kilometre – A passenger transported over one kilometre

c) Sundry Earnings and Other Coaching Earnings

As against the budget estimates of ₹ 17,575 crore for ‘Sundry and other coaching earnings’ during 2019-20, the actual earnings were only ₹ 10,503.54 crore. Sundry and other coaching earnings constituted only 6.02 *per cent* of the Gross Traffic Receipts in the current year. It decreased by 8.43 *per cent*, from ₹ 11,470.69 crore in 2018-19 to ₹ 10,503.54 crore in 2019-20.

Audit analysis showed that the decrease in Sundry Earnings was mainly due to shortfall in earnings from leasing of land, property development of land/air space and other sundry earnings. However, there was increase in receipts from catering department, earnings from RLDA/IRCTC, advertisement and publicity etc. The ‘Sundry Earnings’ also included an amount of ₹ 2,098.10 crore on account of reimbursement of operating loss on strategic lines. There was considerable scope for increasing revenue generation from advertisements and commercial utilization of railway land.

d) Unrealized Earnings

Unrealized earnings on account of movement of traffic is classified as ‘Traffic Suspense’. Unrealized earnings on account of rent/lease of building/land and maintenance charges of sidings etc. is ‘Demand Recoverable’. The outstanding unrealized earnings increased from ₹ 1,728.08 crore in 2018-19 to ₹ 2,032 crore at the end of 2019-20. Of this, an amount of ₹ 1,668.74 crore was outstanding under Traffic Suspense and ₹ 363.26 crore under ‘Demand Recoverable’. The major portion of outstanding under Traffic Suspense was on account of un-recovered freight and other charges from Power Houses and State electricity entities. This amounted to ₹ 638.75 crore, and constituted 38.28 *per cent* of the total Traffic Suspense. Major defaulters are as follows:

Sl. No.	State Electricity Entities/ Power Houses	Outstanding dues as of 31 March 2020
1.	Punjab	446.39
2.	Delhi	114.28
3.	Rajasthan	30.03
4.	NTPC	15.61
5.	Uttar Pradesh	14.72
6.	Maharashtra State	5.84
7.	West Bengal	5.62

Source-Statement of dues recoverable from State Electricity Entities/Power Houses

The outstanding dues in respect of electricity entities of Punjab, Delhi and Rajasthan are continuing over ten years. The Ministry of Railways needs to enhance its efforts to realize the old outstanding dues from State Electricity entities/Power Houses.

1.3 Cross-Subsidization of Passenger and other Coaching Services

IR was unable to meet its operational cost of passenger services and other coaching services. The data available in the latest Report¹⁴ published by the IR has been analysed. It indicates that there was cross subsidization from freight earnings to passenger and other coaching earnings. Loss incurred by passenger and other coaching services increased from ₹ 36,286.33 crore in 2015-16 to ₹ 63,364.25 crore in 2019-20. The losses on passenger and other coaching services vis-à-vis the profit on freight services during 2015-16 to 2019-20 is shown in the following Graph:



Figure 1.6: Losses on Passenger and Other Coaching Services vis-à-vis Profit on Freight Services

As can be seen from the above, the loss on passenger and other coaching services has been steadily increasing over the years. On the other hand, the profit earned on freight operations which had shown an increasing trend during the last three years, decreased sharply from ₹ 50,814.19 crore in 2018-19 to ₹ 28,746.06 crore in 2019-20. The entire profit from freight traffic was utilized to compensate the loss on operation of passenger and other coaching services. The loss of ₹ 34,618.19 crore from Passenger operations was left uncovered during 2019-20.

The operational losses of various classes of passenger services during 2015-16 to 2019-20 are given in the following table:

Table 1.5 Operational losses of various Classes of Passenger Services					
(₹ in crore)					
Class	2015-16	2016-17	2017-18	2018-19	2019-20
AC-Ist class	(-) 175.79	(-) 139.39	(-) 164.95	(-) 248.60	(-) 403.11
Ist class	(-) 58.00	(-) 53.31	(-) 34.67	(-) 38.87	(-) 37.89
AC 2 Tier	(-) 463.11	(-) 559.27	(-) 604.49	(-) 907.93	(-) 1,378.28
AC 3 Tier	898.06	1,040.52	738.75	318.03	64.65

¹⁴ Summary of End Results-Freight Services Unit Costs and Coaching Services Profitability/Unit Costs for the year 2019-20

Table 1.5 Operational losses of various Classes of Passenger Services

(₹ in crore)					
Class	2015-16	2016-17	2017-18	2018-19	2019-20
AC Chair car	(-) 5.58	117.83	98.39	242.80	(-) 182.21
Sleeper Class	(-) 8,301.15	(-) 9,313.27	(-) 11,003.06	(-) 13,011.55	(-) 16,055.93
Second class	(-) 8,569.77	(-) 10,024.88	(-) 11,523.87	(-) 13,214.04	(-) 14,456.65
Ordinary Class	(-) 13,237.74	(-) 14,647.64	(-) 16,568.07	(-) 19,124.13	(-) 20,449.92
EMU suburban services	(-) 5,124.74	(-) 5,323.62	(-) 6,184.46	(-) 6,753.56	(-) 6,937.72

Source-Summary of the End Results Coaching Services Profitability/Unit Costs.

Note: Negative figures denote losses and positive figures denote profits on passenger services.

As can be seen from the data above, all classes of train services have incurred losses during 2019-20 except AC 3 Tier which could recover its operational cost and earned profit. The cross-subsidisation in respect of Second Class, Ordinary Class and Suburban Services increased continuously in the last five years with subsidy on Ordinary Class being the maximum. The loss in various classes of passenger services ranged from ₹ 20,449.92 crore (Ordinary Class) to ₹ 37.89 crore (First Class).

One of the contributing factors for non-recovery of full cost from these classes is free and concessional fare passes/tickets to various beneficiaries. The revenue forgone in passenger earnings due to concessions to various categories of passengers (viz. physically challenged persons, patients, senior citizens, Izzat monthly season tickets, press correspondents, sport persons, war widows, etc.) increased from ₹ 1,994.83 crore in 2018-19 to ₹ 2,058.61 crore in 2019-20. A detailed analysis on concessions given by the Railways was done in CAG's Report on Union Government (Railways) – Railways Finances - No.10 of 2019.

1.4 Application of Resources

The two main components of expenditure in IR are 'Revenue Expenditure' and 'Capital Expenditure'. Revenue expenditure includes ordinary working expenditure and miscellaneous expenditure.

The total expenditure of IR grew from ₹ 3,20,110.17 crore in 2018-19 to ₹ 3,21,169.55 crore in 2019-20, registering a marginal increase of 0.33 per cent. The capital expenditure increased by 11 per cent, whereas the revenue¹⁵ expenditure decreased by 7.30 per cent during the same period. The share of Capital expenditure to total expenditure increased from 41.7 per cent in 2018-19 to 46.1 per cent in 2019-20. The share of Revenue expenditure decreased from 58.3 per cent in 2018-19 to 53.9 per cent in 2019-20. The details of Revenue and Capital expenditure during the last five years are shown in the following Graph:

¹⁵ Excluding amount of surplus appropriated to DF, CF, DSF and RRSK (2015-16 ₹ 10,505.97 crore, 2016-17 ₹ 4,913.00 crore, 2017-18 ₹ 1,665.61 crore, 2018-19 ₹ 3,773.86 crore and 2019-20 ₹ 1,589.62 crore).

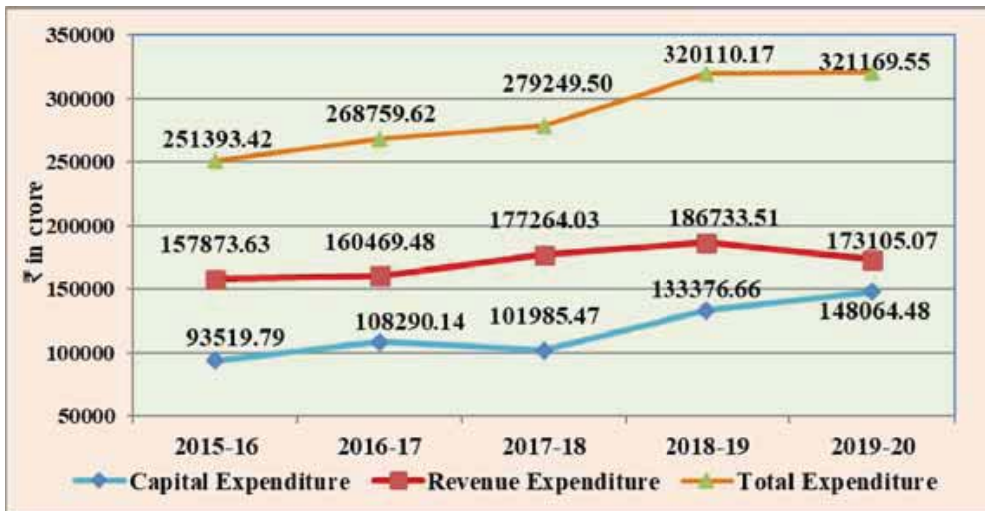


Figure 1.7: Capital and Revenue Expenditure in the last five years

1.4.1 Revenue Expenditure

Comparison of Share of Revenue Expenditure during 2019-20 against the Average Share of Revenue Expenditure during 2014-15 to 2018-19 is shown below:

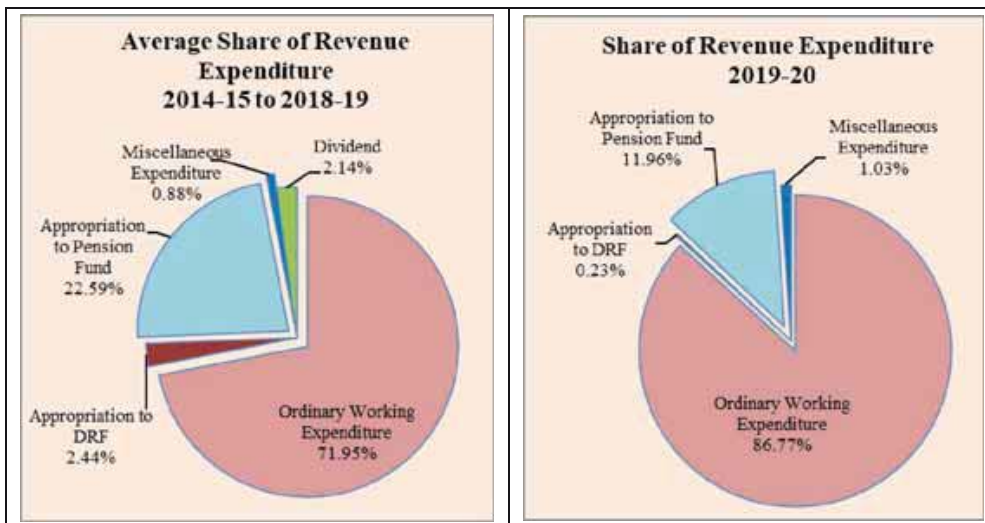


Figure 1.8: Share of Revenue Expenditure in the last five years

Ordinary Working Expenditure (OWE) comprises expenditure on day-to-day maintenance and operations of the Railways. This includes expenditure on office administration, repairs and maintenance of track and bridges, locomotives, carriage and wagons, plant and equipment, operating expenses on crew, fuel, miscellaneous expenditure, payment of interest component of lease charges, pension liabilities etc. During 2019-20, OWE increased to 86.77 per cent of the total revenue expenditure as compared to the average of 71.95 per cent during the past five years.

Component-wise Revenue Expenditure

The break-up of working expenditure of IR under staff, fuel, lease charges, stores, others and pension outgo for the last five years is shown in Graph below:

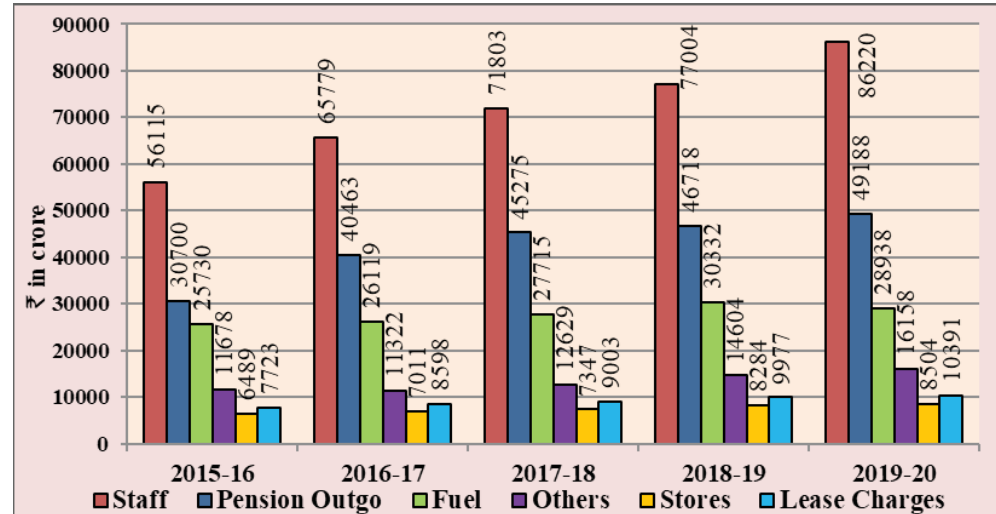


Figure 1.9: Component wise expenditure

As can be seen from the above, Staff cost (including pension outgo) constituted about 68 *per cent* of the working expenses during the current year. It increased by 9.45 *per cent* during 2019-20 as compared to the previous year.

The committed expenditure of the IR consisting of staff cost, pension payments and lease hire charges on rolling stock, was 73 *per cent* of the total working expenditure in 2019-20.

a) Appropriation to Pension Fund

Appropriation to Pension Fund is the second largest component of revenue expenditure. Railways appropriated ₹ 20,708.00 crore to the Pension Fund in 2019-20, against ₹ 44,280.00 crore appropriated last year. The actual expenditure on pension was ₹ 48,626.01 crore (for Zonal Railways) against this appropriated amount in 2019-20.

b) Appropriation to Depreciation Reserve Fund

Appropriation to DRF decreased significantly in 2019-20 as compared to the average appropriation during 2014-19. Against the budgeted amount of ₹ 500 crore for 2019-20, only ₹ 400 crore was appropriated to DRF. Under provisioning for depreciation is resulting in piling up of 'throw forward' of works relating to renewal of over aged assets. Detailed analysis of various Railways Funds is given in Paragraph 1.7.

1.4.2 Capital Expenditure

IR is required to augment infrastructure for sustainable economic growth. To keep pace with the transport sector in general and to respond to the pressures of a buoyant

economy, it is essential that its resources are used effectively. Creation of new assets, timely replacement and renewal of depleted assets etc. are carried out through capital expenditure.

a) Source-wise Capital Expenditure

The capital expenditure of IR is financed from three sources viz. GBS, internal resources¹⁶ and extra budgetary resources¹⁷. During the past five years, the contribution from various sources towards capital expenditure can be seen from the following table:

Source	2015-16	2016-17	2017-18	2018-19	2019-20	
	Actual	Actual	Actual	Actual	Revised Estimates	Actual
Gross Budgetary Support ¹⁸	37,608.47 (40.22)	45,231.64 (41.77)	43,417.55 (42.57)	52,837.67 (39.61)	68,104.64 (43.56)	67,477.49 (45.57)
Internal Resources (From Rlys Funds)	16,845.31 (18.01)	10,479.84 (9.68)	3,069.77 (3.01)	4,663.18 (3.50)	5,000.00 (3.20)	1,685.08 (1.14)
Total (GBS and Internal Resources)	54,453.78 (58.23)	55,711.48 (51.45)	46,487.32 (45.58)	57,500.85 (43.11)	73,104.64 (46.76)	69,162.57 (46.71)
Extra Budgetary Resources (IRFC and PPP)	39,066.01 (41.77)	52,578.66 (48.55)	55,498.15 (54.42)	75,875.81 (56.89)	83,247.33 (53.24)	78,901.91 (53.29)
Grand Total	93,519.79	1,08,290.14	1,01,985.47	1,33,376.66	156,351.97	1,48,064.48

Note: Figures in brackets represent percentage share of overall expenditure

During the year 2019-20, the overall Capital expenditure of IR increased substantially by 11 per cent as compared to the previous year. The share of GBS to the total capital expenditure increased from 39.61 per cent in 2018-19 to 45.57 per cent in 2019-20. However, the share of internal resources in total capital expenditure, which was as high as 18.01 per cent in 2015-16, decreased to 1.14 per cent in 2019-20. Inadequate generation of internal resources resulted in greater dependence on GBS and EBR.

The share of EBR decreased from 56.89 per cent in 2018-19 to 53.29 per cent in current year. During 2019-20, Ministry of Railways spent ₹ 33,376.47 crore on procurement of Rolling Stock from funds raised through market borrowings by IRFC. An amount of ₹ 32,916.06 crore was incurred on projects funded through EBR on New Lines (Construction), Gauge Conversion, Doubling, Railway Electrification Projects and Traffic Facilities. Further, ₹ 12,609.38 crore raised through Public Private Partnership (PPP) mainly for expenditure on New Line Projects, Traffic Facilities and Road Safety Works etc.

¹⁶ Reserve Funds such as Depreciation Reserve Fund, Capital Fund, Development Fund

¹⁷ Market borrowing through IRFC Limited and PPP

¹⁸ Includes expenditure from Railway Safety Fund

b) Expenditure under various Plan Heads

Indian Railways undertakes capital expenditure under the following Plan heads:

Table 1.7 - Category-wise Capital Expenditure (₹ in crore)					
Plan Heads	2015-16	2016-17	2017-18	2018-19	2019-20
Doubling	10,472.35	9,093.23	11,240.34	15,168.33	22,688.83
New Lines (Construction)	15,789.74	15,969.89	9,183.82	11,275.40	12,929.36
Track Renewal	4,367.59	5,076.33	7,727.71	8,241.66	9,390.55
Gauge Conversion	3,615.65	3,769.92	2,880.11	4,055.00	4,218.53
Signaling and Telecommunication	892.89	951.56	1,255.64	1,537.02	1,622.62
Traffic Facilities & Yard Remodelling	983.00	910.67	1,224.84	1,146.70	1,634.23
Bridge Work	517.20	474.52	448.73	528.27	781.50
Rolling Stock and Payment of Capital Component of Lease charges	24,237.48	26,610.98	28,119.11	37,219.68	47,801.56
Investment in PSUs, JVs, SPVs	7,349.71	7,184.13	4,887.99	12,678.36	16,924.88
Workshop and Production Units and Plant & Machinery	1,921.14	1,965.00	1,753.57	2,442.94	2,583.07
Others	8,292.04	9,449.82	11,147.61	14,802.16	14,879.97
Total¹⁹	78,438.79	81,456.05	79,869.47	109,095.52	135,455.10

Source-Indian Railways Appropriation Accounts-Grant No.80 and Statement No.10-Statement of Expenditure on Capital Account.

Note: 'Others' include Road Safety Works, Electrification Projects, Computerization, other Electric Works, Railway Research, Other Specified Works, Stores Suspense, Manufacturing Suspense, Miscellaneous Advance, Staff Quarters, Passenger Amenities, Metropolitan Projects.

Doubling, New Lines (Construction), Track Renewal and Gauge Conversion are the major components of Capital Expenditure. IR also undertook new line construction, traffic facility works, Rolling stock, Road Safety Works (Road Over/Under Bridge) etc. through PPP mode.

The expenditure on 'Rolling Stock and Capital Component of Lease charges' increased by 28 per cent in 2019-20 as compared to the previous year.

1.5 Revenue Surplus

The 'Net revenue surplus' is the surplus available with the railways after meeting all expenditure of revenue nature such as staff cost including pension, operational expenses, repair and maintenance cost and appropriation to DRF and Pension Fund. This surplus is further allocated to various Railway Funds such as DF, CF, DSF, RSF and RRSK. The net revenue surplus during the years 2010-11 to 2019-20 can be seen in the Graph below:

¹⁹ Excludes expenditure on PPP



Figure 1.10 Revenue Surplus

Against the BE of ₹ 9,035 crore, the ‘Net Surplus’ was ₹ 1,589.62 crore in 2019-20. It was lower than the BE by ₹ 7,445.38 crore (82.41 *per cent*). The net surplus was also less by ₹ 2,184.24 crore as compared to the surplus of ₹ 3,773.86 crore achieved in 2018-19.

Audit analysis revealed that the Railways could show more surplus during 2019-20 by appropriating lesser amount to Pension Fund than the required amount. Had the actual amount (₹ 48,626 crore) required to meet the expenditure on pension payments of Zonal Railways been appropriated to the Pension Fund (instead of ₹ 20,708 crore), the Railways would have ended with a negative balance of ₹ 26,328.39 crore (instead of Surplus of ₹ 1,589.62 crore).

1.6 Efficiency Indices

The financial performance and efficiency in operations of an enterprise can best be measured from its financial and performance ratios. The relevant ratios in this regard for IR are ‘Operating Ratio’, ‘Capital-Output Ratio’ and ‘Staff Productivity’, which are discussed below:

1.6.1 Operating Ratio

Operating Ratio represents the ratio of working expenses to traffic earnings. A higher ratio indicates poorer ability to generate surplus. Against the target of 95 *per cent* in the Budget Estimates, the Operating Ratio of Railways was 98.36 *per cent* in 2019-20. This meant that railways spent ₹ 98.36 to earn ₹ 100. As compared to the Operating Ratio of 97.29 *per cent* during 2018-19, there was deterioration in 2019-20. The Operating Ratio of Indian Railways during the past ten years is as follows:



Figure 1.11 Operating Ratio of Indian Railways

As can be seen from the Graph above, the Operating Ratio of Indian Railways reached an all-time high of 98.44 per cent in 2017-18, which marginally came down to 97.29 per cent in 2018-19, and increased to 98.36 per cent in 2019-20.

Further, had the actual amount (₹ 48,626 crore) required to meet the expenditure on pension payments of Zonal Railways been appropriated to the Pension Fund (instead of ₹ 20,708 crore), the Railways working expenses would have increased. With the increased working expenses, the OR would have been 114.35 per cent instead of 98.36 per cent in 2019-20. In the Union Budget 2021-22 document, it has been mentioned that “with required level to appropriation to Pension Fund from Railways Revenues in 2019-20, the Operating Ratio would be 114.19 per cent.” **Thus the OR of 98.36 per cent shown by the Railways does not reflect the true financial performance of the Railways.**

Operating Ratio of zonal railways during the last five years ended on 31 March 2020 is shown in the following Table:

S. No.	Zonal Railway	2015-16	2016-17	2017-18	2018-19	2019-20
1.	Metro Railway/Kolkata	237.80	260.06	278.29	247.94	215.97
2.	North Eastern	196.52	197.01	201.78	204.54	188.16
3.	Eastern	180.56	165.27	181.15	185.98	169.75
4.	Northern	114.97	118.85	117.09	131.95	154.79
5.	Northeast Frontier	185.71	130.45	169.29	160.58	151.67
6.	Southern	134.89	147.83	161.14	152.61	146.48
7.	South Western	102.60	119.56	129.49	132.64	124.37
8.	Western	88.72	103.00	107.86	102.11	114.90
9.	North Western	91.15	95.17	107.90	105.75	112.66
10.	Central	98.13	105.00	111.12	105.44	104.67

S. No.	Zonal Railway	2015-16	2016-17	2017-18	2018-19	2019-20
11.	East Central	90.28	101.83	97.50	98.46	102.37
12.	South Central	78.71	86.24	82.94	79.53	87.55
13.	North Central	61.98	70.50	66.89	68.39	74.38
14.	West Central	64.38	73.90	74.91	67.83	70.61
15.	South Eastern	71.15	73.46	75.90	73.08	64.86
16.	South East Central	50.52	56.24	55.82	56.24	53.66
17.	East Coast	50.56	53.78	51.98	52.39	51.49
Overall IR		91.25	90.49	98.44	97.29	98.36

Source-Indian Railways Appropriation Accounts 2019-20

Operating Ratio of six Zonal Railways (South Central, North Central, West Central, South Eastern, South East Central and East Coast Railways) ranged between 87 per cent and 51 per cent. Operating Ratio of eleven Zonal Railways (Metro Railway/Kolkata, North Eastern, Eastern, Northern, Northeast Frontier, Southern, South Western, Western, North Western, Central and East Central Railways) was more than 100 per cent during 2019-20 implying that their working expenditure was more than their traffic earnings. Operating Ratio of seven Zonal Railways (Metro Railway/Kolkata, North Eastern, Eastern, Northern, Northeast Frontier, Southern and South Western Railways) had continued to be more than 100 per cent in the last five years.

1.6.2 Capital Output Ratio

Capital Output Ratio (COR) indicates the amount of capital employed to produce one unit of output. Total Traffic in terms of NTKMs (for both Goods and Passenger Traffic) is considered as the output in the case of IR. Higher COR indicates lower performance. COR of IR during the last five years ended on 31 March 2020 was as follows:

As on	Total Capital including investment from Capital Fund (₹ in Million)	Goods Traffic (Million NTKM) (Revenue Traffic only)	Passenger Traffic (Million NTKM)	Total Traffic (in Million NTKMs) [Col. (3) + Col. (4)]	Capital at charge (in Paise) per NTKM (COR) [Col. (2)/ Col. (5) x100]
(1)	(2)	(3)	(4)	(5)	(6)
31.03.2016	2,751,353	654,481	81,156	735,637	374
31.03.2017	3,024,578	620,175	81,638	701,813	431
31.03.2018	3,247,256	692,916	83,617	776,533	418
31.03.2019	3,482,121	738,523	82,159	820,682	424
31.03.2020	3,749,039	707,665	74,602	782,267	479

Source-Indian Railways Annual Statistical Statements

COR had increased from 374 paise in 2015-16 to 479 paise in 2019-20 indicating decrease in physical performance of the IR as compared to capital employed. Higher cost overruns due to non-completion of projects in time coupled with investment in financially unviable projects contributed to higher COR.

1.6.3 Staff Productivity

In Indian Railways, the Staff productivity²⁰ is measured in terms of volume of traffic handled per thousand employees. A higher ratio indicates efficient transport of freight/passenger. The staff productivity decreased from 714 Million NTKM in 2018-19 to 664 Million NTKM in 2019-20 in respect of Open Line staff of all Zonal Railways. Deterioration in staff productivity in 2019-20 as compared to the previous year was due to decline in freight carried (tonnage) and passenger originating (total distance carried/travelled).

During 2019-20, highest Staff Productivity of 1847.33 Million NTKM was achieved by East Coast Railway. Staff Productivity of 248.9 Million NTKM of Southern Railway was the lowest during the same period.

1.7 Railway Funds

The following funds are operated by Indian Railways for specific purposes. These funds (except RSF and RRSK) also accrue interest at the rate fixed by the Ministry of Finance. The details of the funds are given in the following table:

Name of Fund	Opening Balance as on 01 April 2019	Accretion during the year	Withdrawal during the year	Closing Balance as on 31 March 2020
Depreciation Reserve Fund (DRF)	718.03	639.32	523.80	833.55
Pension Fund	196.11	20593.31	49187.89	-28398.47
Development Fund (DF)	248.36	1408.33	1137.40	519.29
Capital Fund (CF)	380.56	19.79	0.00	400.35
Railway Safety Fund (RSF)	140.99	17250	16885.74	505.25
Debt Service Fund (DSF)	204.11	10.61	0.00	214.72
RRSK	17.78	15200.76	15023.88	194.66
Total	1905.94	55122.12	82758.71	-25730.65

Note- Accretion includes financial adjustments, appropriation to fund and interest received on fund balances during the year.

The overall fund balances which was as high as ₹ 10,806.68 crore in 2015-16 turned into negative balance of ₹ 25,730.65 crore in 2019-20 for the first time. The adverse fund balance was the result of more expenditure towards pension payments than the actual appropriation to the Pension Fund. The trend of fund balances can be seen from the following Graph:

²⁰ Annual Statistical Statements of Indian Railways

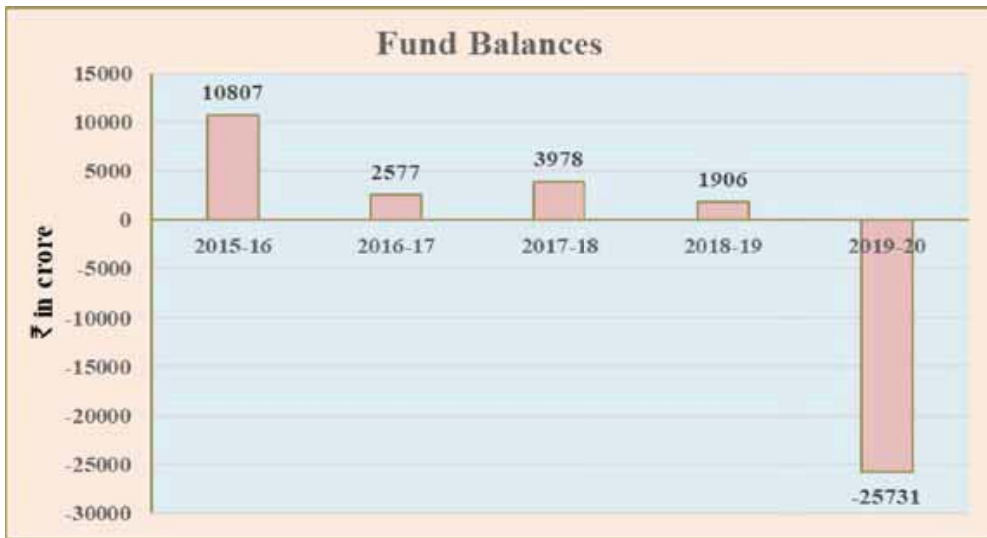


Figure 1.12: Trend of Railways Fund Balances (2015-16 to 2019-20)

1.7.1 Depreciation Reserve Fund

For replacement and renewal of assets, the Railways maintain DRF. During 2019-20, ₹600 crore²¹ was appropriated against the BE of ₹ 1,000 crore and ₹523.80 crore spent from the fund. The amount is insignificant as compared to the ‘throw forward’ for works to be done under DRF. The details of appropriation to and withdrawal from DRF during the last five years can be seen in the following Graph:

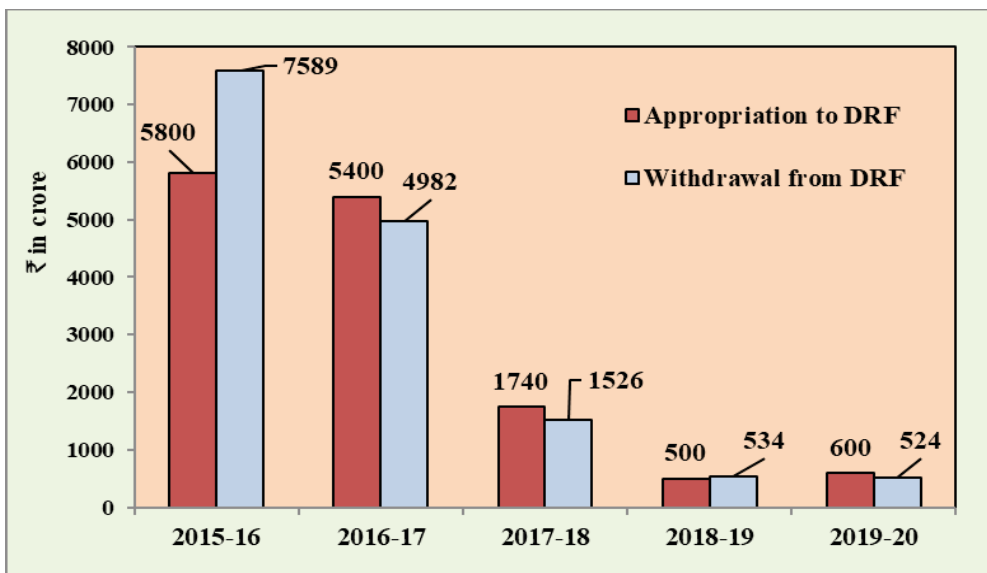


Figure 1.13: Appropriation to and withdrawal from DRF

The ‘throw forward’ value of assets to be replaced from DRF (up to 2019-20) was estimated at ₹ 95,217 crore. This mainly included ₹ 58,887 crore on track renewals,

²¹ ₹ 400 crore from revenue and ₹ 200 crore from Capital

₹ 26,547 crore on rolling stock, ₹ 3,063 crore on bridge works, ₹ 1,918 crore on signaling and telecommunication works, Tunnel Works and Approaches and ₹ 615 crore on Workshops including Production Units. Thus, there is huge backlog of renewal and replacement of over aged assets, which needs to be replaced timely, for safe running of trains.

The provision made to the fund for replacement and renewal of assets is inadequate. This has steadily decreased during the last five years and was insufficient to meet the requirements. Audit had flagged this issue in its earlier Reports. There is every possibility and especially in the background of depleting surplus, that replacement and renewal of over aged assets could become a burden for the Government of India.

1.7.2 Pension Fund

The fund was created to cover the current pension payments as also to meet the accumulated liability on account of pension benefits earned in each year of service. The fund is financed by transfer from revenue in case of Zonal Railways and by transfer from Workshop Manufacture Suspense (WMS) in case of Production Units.

Against the BE of ₹ 50,000 crore, Railways appropriated an amount of ₹ 20,708 crore during 2019-20. The actual expenditure on pension payment during the year 2019-20 was ₹ 49,187.89 crore²², which was more than the amount available in the Pension Fund. Thus the Railways have overdrawn from the Public Account during 2019-20 which resulted in negative balance of ₹ 28,398.47 crore in the fund for the first time. In the Union Budget 2021-22, an amount of ₹ 79,398 crore has been sanctioned as “special loan from General Revenues for Covid related resource gap in 2020-21 and to liquidate adverse balance in Public Account in 2019-20”.

The expenditure of Railways on account of Pension payments during the last five years is shown in the following Graph:



Figure 1.14: Expenditure on Pension Payments of Railways

²² Zonal Railways ₹ 48,626.01 crore, Production Units & Misc Organisations ₹ 561.88 crore

As can be seen from the above Graph, the expenditure on pension which was ₹ 30,701 crore in 2015-16, has increased to ₹ 49,188 crore in 2019-20 (60 per cent increase).

1.7.3 Capital Fund

The fund has been created (from 1992-93) with the express purpose of financing part of the requirement for works of capital nature. During 2019-20 no appropriation was made to the fund though an amount of ₹ 3,035 crore was envisaged in the BE. During 2019-20, IR spent ₹ 10,462 crore towards capital component of IRFC lease charges from GBS, as no appropriation was made to CF. Audit observed that during the last three years, the entire lease charges (Principal component) was being paid from the Budgetary Support. Ideally the repayment of lease charges to IRFC should have been made from Capital Fund (which is sourced from revenue surplus). However, due to inadequate surplus and insufficient funds available in CF, the repayment of lease charges to IRFC was made from GBS. This arrangement of repayment to IRFC from GBS is not a healthy trend and would deprive the railways of additional investments that could have been made on capital works.

Accurate forecast of budget is of paramount importance for efficient financial and operational performance of an organization. It assumes greater significance in view of COVID-19 pandemic. MoR needs to take timely steps towards realistic assessment of estimates in order to have prudent financial management of its receipts and expenditure.

1.7.4 Development Fund

The fund is financed by appropriation from 'Revenue Surplus'. It is utilised to meet expenditure for works relating to amenities for users of railway transport, labour welfare works, unremunerative operational improvement works etc. During 2019-20, ₹ 1,388.86 crore was appropriated against the Budget Estimates of ₹ 1,000 crore and ₹ 1,137.40 crore spent.

1.7.5 Debt Service Fund

The fund has been created (from 2013-14) for future debt service obligations in respect of loans taken from Japan International Cooperation Agency (JICA), World Bank and for future implementation of Pay Commissions. The fund is financed by appropriation from 'Surplus' after meeting the requirement of CF and DF. During the last two years, neither any amount was budgeted nor appropriated in DSF.

Audit observed that the fund account is being operated by MoR under Major Head 8116-101 pertaining to Railway Revenue Reserve Fund which ceased to exist with effect from 01.04.1993. However, no formal concurrence for opening of Major Head and methodology for operating the head has yet been obtained from the CGA.

1.7.6 Railway Safety Fund

This fund has been created (since April 2001) for financing works relating to conversion of unmanned level crossings and for construction of road over/under bridges. However, the scope of this fund has been enlarged in 2016-17 to include New Lines, Gauge Conversion, Electrification and Safety works. The fund is financed through transfer of fund by the Central Government from the Central Road Fund (CRF), out of diesel cess. Apart from this, amount can also be appropriated out of revenue surplus. During 2019-20, Railways received ₹ 17,250 crore as transfer from CRF. An amount of ₹ 6,885.74 crore was spent on works under RSF and ₹ 10,000 crore was transferred from RSF to RRSK for financing critical safety works.

1.7.7 Rashtriya Rail Sanraksha Kosh

This fund was created with effect from 2017-18 for financing critical safety related works. This included Track Renewals, Bridge Works, Signaling and Telecommunication Works, Road Safety Works of Level Crossings and Road Over/Under Bridges, Rolling Stock, Traffic Facilities, Electrical Works, Machinery and Plant, Workshops, Passenger Amenities and Training/HRD. The fund would receive credits from GBS, RSF, DRF and Revenue Surplus. The Fund has a corpus of ₹ 1 lakh crore over a period of five years. The assured annual outlay is ₹ 20,000 crore with ₹ 15,000 crore as contribution from GBS and ₹ 5,000 crore from internal resources of Railways.

As against an amount of ₹ 5,000 crore, railways could appropriate only ₹ 200.76 crore from its internal resources to RRSK due to inadequate revenue surplus. An amount of ₹ 10,000 crore was transferred from RSF and ₹ 5,000 crore from GBS and an expenditure of ₹ 15,023.88 crore was incurred. Audit observed that this Fund has been created by simply transferring funds from three existing sources. It is pertinent to mention that the works of renewal, replacement and upgradation of critical safety assets are already being undertaken through the existing Funds namely DRF and RSF. Audit observed that by funding replacement and renewal of assets through RRSK instead of DRF, railways have reduced the appropriation to DRF, thereby presenting the working expenses and operating ratio in a better light.

1.8 Conclusion

The total expenditure of Indian Railways grew from ₹ 3,20,110.17 crore in 2018-19 to ₹ 3,21,169.55 crore in 2019-20, registering a marginal increase of 0.33 *per cent*. The capital expenditure increased by 11 *per cent*, whereas the revenue expenditure decreased by 7.30 *per cent* during the year. The committed expenditure of staff cost, pension payments and lease hire charges on rolling stock, was 73 *per cent* of the total working expenditure in 2019-20.

During 2019-20, the Total Receipts decreased by 8.30 *per cent* as compared to 6.47 *per cent* increase in 2018-19. The decrease in 2019-20 was mainly on account of decline in Freight Earnings (by 10.94 *per cent*) and Sundry Earnings (by 16.20 *per cent*)

as compared to 2018-19. There was heavy dependence on transportation of Coal, which constituted 48.82 *per cent* of Freight Earnings. Any shift in bulk commodities transport pattern could affect the freight earnings significantly.

Net surplus was ₹ 1,589.62 crore in 2019-20, as compared to ₹ 3,773.86 crore in 2018-19. Railways would in fact, have ended up with a negative balance of ₹ 26,328.39 crore instead of surplus of ₹ 1,589.62 crore, had the actual amount (₹ 48,626 crore) required to meet the expenditure on pension payments of Zonal Railways been appropriated to the Pension Fund (instead of ₹ 20,708 crore).

The Operating Ratio which was 97.29 *per cent* in 2018-19 increased to 98.36 *per cent* in 2019-20. The OR of the Railways would have been 114.35 *per cent* instead of 98.36 *per cent* if the actual expenditure on pension payments is taken into account. Thus the OR of 98.36 *per cent* shown by the Railways does not reflect the true financial performance of the Railways.

As per the Summary of End Results prepared by IR for 2019-20, the loss on operation of passenger and other coaching services increased from ₹ 36,286.33 crore in 2015-16 to ₹ 63,364.25 crore in 2019-20. The entire profit from freight traffic was utilized to compensate the loss on operation of passenger and other coaching services. The loss of ₹ 34,618.19 crore in passenger operations was left uncovered during 2019-20.

The overall fund balances which was as high as ₹ 10,806.68 crore in 2015-16 turned into negative balance of ₹ 25,730.65 crore in 2019-20. The adverse fund balance was the result of more expenditure towards pension payments than the actual appropriation to the Pension Fund.

During the year, IR spent ₹ 10,462 crore towards capital component of IRFC lease charges from GBS. Audit observed that for the last three years, the entire lease charges (Principal component) were being paid from the Budgetary Support. Ideally the repayment of lease charges to IRFC should have been made from Capital Fund (which is sourced from revenue surplus). This arrangement of repayment to IRFC from GBS is not a healthy trend and would deprive the railways of additional investments that could have been made on capital works.

During 2019-20, appropriation to DRF decreased as compared to the previous years (from ₹ 5,800 crore in 2015-16 to ₹ 600 crore in 2019-20). Under-provisioning for depreciation resulted in piling up of 'throw forward' works estimated at ₹ 95,217 crore (up to 2019-20).

During the year 2019-20, Railways appropriated an amount of ₹ 200.76 crore from its internal resources to RRSK. Further, ₹10,000 crore was transferred from RSF and ₹ 5,000 crore from GBS to RRSK. There was an expenditure of ₹ 15,023.88 crore from the fund. By funding replacement and renewal of assets through this Fund instead of DRF, railways have reduced the appropriation to DRF, thereby, presenting the working expenses and operating ratio in a better light.

Summary of Audit findings

- Total Receipts decreased sharply due to shortfall in freight and sundry earnings. Freight earning was heavily dependent on transportation of coal.
- Contribution of internal resources for capital projects declined resulting in greater dependence on GBS and EBR.
- Due to less appropriation to Pension Fund, Railways could show surplus and higher Operating Ratio.
- Under provisioning for depreciation resulted in piling up of renewal and replacement works.

1.9 Recommendations

Ministry of Railways -

- Needs to take steps to diversify their freight basket to enhance freight earnings and also consider to exploit its idle assets to increase other earnings.*
- Needs to take steps to augment their internal revenues, so that dependence on GBS and EBR is contained.*
- Needs to revisit the passenger and other coaching tariffs so as to recover the cost of operations in a phased manner and reduce its losses in its core activities.*
- Needs to ensure that surplus and Operating Ratio represent a true picture of its financial performance.*
- Needs to address the backlog of renewal of over-aged assets for safe running of trains.*