

# Demand for Grants 2021-22 Analysis

## Railways

The Railways finances were presented on February 1, 2021, by the Finance Minister Ms. Nirmala Sitharaman along with the Union Budget 2021-22. The Ministry of Railways manages the administration of Indian Railways and policy formation through the Railway Board. Indian Railways is a commercial undertaking of the central government.<sup>1</sup>

Expenditure of Railways is financed through: (i) its internal resources (freight and passenger revenue, and leasing of railway land), (ii) budgetary support from the central government, and (iii) extra-budgetary resources (primarily borrowings but also includes institutional financing, public-private partnerships, and foreign direct investment). Railways' working expenses (salaries, staff amenities, pension, asset maintenance) are met through its internal resources. Capital expenditure (such as procurement of wagons, station redevelopment) is financed through extra-budgetary resources, the budgetary support from the central government, and internal resources.

This note looks at the proposed expenditure of the Ministry of Railways for the year 2021-22, its finances over the last few years, and issues with the same.

As 2020-21 had extra-ordinary expenditure on account of Covid-19, we have used annualised increase (CAGR) over the 2019-20 figures to compare the 2021-22 budget estimates.

### Highlights

- **Revenue:** Railways' revenue for 2021-22 is estimated at Rs 2,17,460 crore which is an annual increase of 12% over 2019-20.
- **Traffic revenue:** Total revenue from traffic for 2021-22 is estimated to be Rs 2,17,110 crore, an annual increase of 12% over 2019-20. In 2021-22, revenue from both freight and passenger traffic is expected to grow at an annual rate of 10% over 2019-20. In 2020-21, revenue from freight and passenger traffic is estimated to be 16% and 75% less than the budget estimates, respectively.
- **Expenditure:** The total revenue expenditure by Railways for 2021-22 is projected to be Rs 2,10,899 crore, an annual increase of 10% over 2019-20. In 2020-21, revenue expenditure is estimated to be 34% lower than the budget estimate. In 2021-22, capital expenditure is projected at Rs 2,15,058 crore, an annual increase of 21% over 2019-20. In 2020-21,

capital expenditure is estimated to be 0.4% higher than the budget estimates.

- **Operating Ratio:** In 2021-22, the Railways' Operating Ratio is estimated to be 96.2%. This is marginally better than the operating ratio of 98.4% in 2019-20.

### 2021-22 Budget announcements<sup>2</sup>

Key announcements and proposals related to Railways made in Budget 2021-22 include:

- National Rail Plan 2030 has been prepared for infrastructure development. Under the plan, following dedicated freight corridors projects will be undertaken: (i) East Coast Corridor from Kharagpur to Vijaywada, (ii) East-West Corridor from Bhusaval to Kharagpur to Dankuni, and (iii) North-South Corridor from Itarsi to Vijaywada.
- Railways will monetise dedicated freight corridor assets for operation and maintenance.
- High-density network and highly utilised network routes will be provided with an indigenously developed automatic train protection system that eliminates train collision due to human error.
- Coaches with enhanced facilities will be introduced on the tourist routes to provide a better experience.

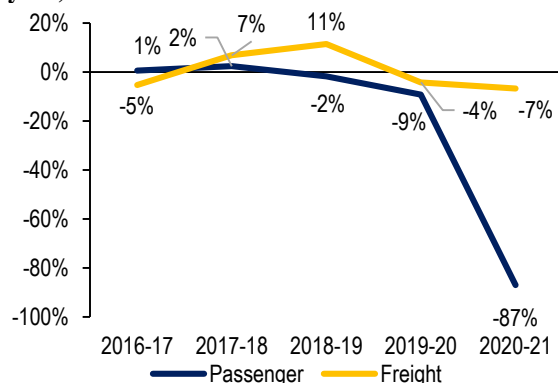
### Finances in 2020-21: Impact of COVID<sup>3</sup>

More than 90% of internal revenue of Railways comes from the core business of running freight and passenger trains. In 2020-21, passenger traffic volume is estimated to decline by 87% over the previous year (Figure 1), as against an increase of 1% estimated at the budget stage. During the initial phase of the national lockdown (March-April 2020), passenger services of Railways were completely suspended.<sup>4</sup> Services have since resumed to some extent with provisioning of special trains, however, are yet to return to the pre-COVID level.

Freight services continued during the lockdown. However, due to a decline in the economic activities during April-June 2020, the demand for freight services may also have been impacted. In 2020-21, the freight traffic volume is estimated to decline by 7% as compared to the previous year (2019-20), as against an increase of 3% estimated at the budget stage. Consequently, in 2020-21, Railways' own revenue is estimated to be 35% less

than the budget estimate (Table 1). A similar decline is estimated in revenue expenditure (34%). This has helped the operating ratio to remain at a level similar to the budget estimate (97% at the revised stage as against 96.3% at the budget stage). Operating ratio is a measure of operational efficiency. It is the ratio of the working expenditure (day-to-day operational expenses of Railways) to the revenue earned from the traffic.

**Figure 1: Growth in traffic volume (year-on-year)**



Note: Number for 2020-21 is as per revised estimates. Traffic volume taken in terms of: (i) NTKM-Net Tonne Kilometre (One NTKM is the net weight of goods carried for a kilometre) for freight, and (ii) PKM –Passenger Kilometre (One PKM is when a passenger is carried for a kilometre) for passenger services; Source: Expenditure Profile; Union Budget Documents; PRS.

**Table 1: Finances in 2020-21 (Rs crore)**

Particular	BE	RE	% change From BE to RE
1. Internal Revenue	2,25,913	1,46,609	-35%
Gross Traffic Receipts	2,25,613	1,46,309	-35%
Freight revenue	1,47,000	1,24,184	-16%
Passenger revenue	61,000	15,000	-75%
2. Budgetary Support	70,250	29,250	-58%
3. Extra Budgetary Resources	83,292	1,28,567	54%
4. Special Loan from the central government*	0	79,398	-
<b>Total Receipts (1+2+3+4)</b>	<b>3,79,455</b>	<b>3,83,824</b>	<b>1%</b>
5. Revenue Expenditure	2,19,413	1,43,809	-34%
Ordinary Working Expenses	1,62,753	1,40,786	-13%
Pension Fund	53,160	523	-99%
6. Capital Expenditure	1,61,042	1,61,692	0%
7. Appropriation of Special Loan*	0	79,398	-
<b>Total Expenditure (5+6+7)</b>	<b>3,80,455</b>	<b>3,84,899</b>	<b>1%</b>
<b>Operating Ratio</b>	<b>96.3%</b>	<b>97.0%</b>	-

Note: \*Special Loan from the general revenue of the central government has been provided for COVID-19 related resource gap in 2020-21 and to liquidate adverse balance in Public Account in 2019-20 to Pension Fund.

Source: Expenditure Profile; Union Budget 2021-22; PRS.

However, most of the decrease in revenue expenditure is due to less than required appropriation to the pension fund. Against the

budget estimate of Rs 53,160 crore, the appropriation to the pension fund is estimated to be Rs 523 crore at the revised stage (99% less). If appropriation were to be as per the requirement, the operating ratio will worsen to 131.5%.<sup>5</sup>

In 2019-20 also, appropriation to the pension fund was 60% less than the budget estimate (Rs 20,708 crore as against the budget estimate of Rs 50,000 crore). The operating ratio in 2019-20 was 98.4%. If appropriation to the pension fund were to be as per the requirement, the operating ratio in 2019-20 will be 114.2%.<sup>5</sup>

Usually, Railways runs only a marginal revenue surplus. Hence, it finances most of its capital expenditure from: (i) budgetary support provided by the central government, and (ii) extra budgetary resources. In 2020-21, while capital expenditure target has not seen any notable change from the budget to the revised stage, the budgetary support by the central government is estimated to decline by 58%. As a result, the dependency on extra budgetary resources for financing capital expenditure will increase further. Extra budgetary resources are estimated to be 54% higher than the budget estimate.

The Standing Committee on Railways (2020) had observed that the allocation for capital expenditure at the budget stage in 2020-21 (Rs 1,61,042 crore) was about 18% less than the demand (Rs 1,97,295 crore).<sup>6</sup> It further observed that these funds may not be adequate for enforcing the ambitious investment plan of Railways as well as expeditious completion of pending projects.<sup>6</sup>

As per the revised estimates, in 2020-21, Railways will receive a special loan of Rs 79,398 crore from the central government to: (i) meet the resource gap due to COVID-19 in 2020-21, and (ii) meet pension fund obligations for 2019-20.<sup>5</sup>

## Overview of Finances<sup>3</sup>

### Railways' Revenue

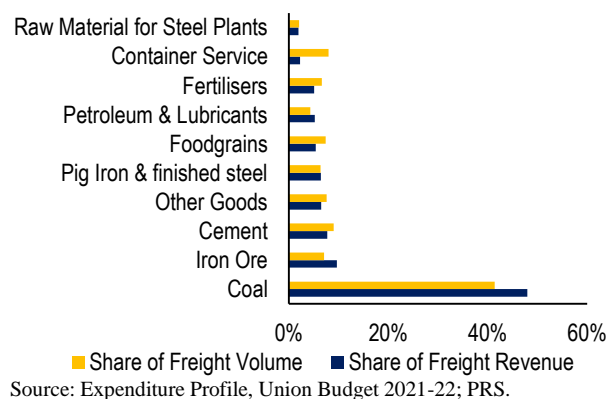
#### Internal Resources

Railways earns its internal revenue primarily from passenger and freight traffic. In 2019-20 (latest actuals), freight and passenger traffic contributed to about 65% and 29% of the internal revenue, respectively. In 2021-22, Railways expects to earn 63% of its internal revenue from freight and 28% from passenger traffic. The remaining 9% will be earned from other miscellaneous sources such as parcel service, coaching receipts, and sale of platform tickets. For details, please see Table 9 in the Annexure.

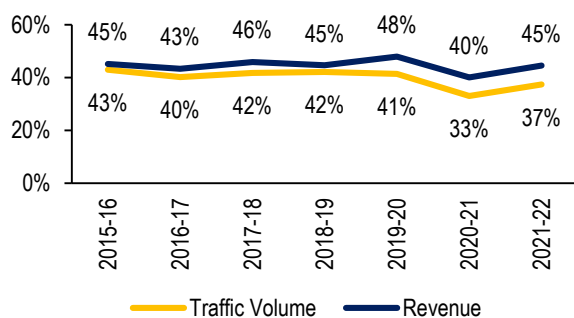
**Freight traffic:** In 2019-20, Railways generated most of its freight revenue from the transportation of coal (48%), followed by iron ore (10%), and cement (8%) (see Figure 2). Railways mostly transports bulk freight, and the freight basket has

mostly been limited to raw materials for certain industries such as power plants, and the iron and steel plants. In 2021-22, Railways expects to earn Rs 1,37,810 crore from goods traffic, an annual increase of 10% over 2019-20.

**Figure 2: Share in freight volume and revenue in 2019-20 (in %)**



**Figure 3: Share of coal in Railways' freight**



While the share of coal in freight volume has been slowly coming down (from 43% in 2015-16 to 37% in 2021-22), its contribution to revenue has remained consistent (45% in 2015-16 as well as 2021-22). This may be indicative of an increasing dependency on coal for revenue as compared to other items in the freight basket.

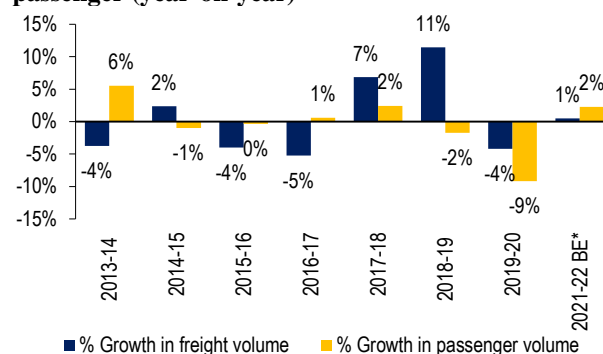
**Passenger traffic and revenue:** Passenger traffic is broadly divided into two categories: suburban and non-suburban traffic. Suburban trains are passenger trains that cover short distances of up to 150 km and help move passengers within cities and suburbs. Majority of the passenger revenue (94.4% in 2019-20) comes from the non-suburban traffic (or the long-distance trains).

In 2021-22, Railways expects to earn Rs 61,000 crore from passenger traffic, an annual increase of 10% over 2019-20. In 2021-22, passenger traffic is estimated to grow at an annual rate of 2% over 2019-20. Note that due to the prevalence of COVID-19, there may be uncertainties in the return of passenger traffic volume to its normal level in 2021-22, this could impact these estimates.

### Challenges in raising revenue

Over the last few years, there has been a decline in the growth of both rail-based freight and passenger traffic (see Figure 4). This affects Railways' earnings from its core business of running freight and passenger trains. In 2021-22, Railways estimates a decline in some of its key revenue earning traffic. For example, coal traffic is estimated to register an annual decrease of 5% over 2019-20. Overall freight traffic is estimated to have an annual increase of only 1% over 2019-20.

**Figure 4: Volume growth for freight and passenger (year-on-year)**



Railways is also steadily losing freight traffic share to other modes of transport. The share of Railways in total freight traffic has declined from 89% in 1950-51 to 30% in 2011-12.<sup>7</sup> During the same period, the share of roads on total freight traffic increased from 11% to 61%. As per the draft National Rail Plan 2030, the share of Railways in total freight traffic stood at 27% in 2020.<sup>8</sup>

NITI Aayog (2018) had highlighted shortfall in carrying capacity and lack of price competitiveness as some of the reasons for the decline in freight share.<sup>9</sup> It further observed that since passenger and freight traffic run on the same tracks, India has not been able to increase speed or capacity in a significant manner when compared to global benchmarks.<sup>9</sup> Note that various dedicated freight corridors have been planned by Railways for improvement in facilities for freight.

The freight basket is also limited to a few commodities, most of which are bulk in nature (see Figure 2). For example, in 2019-20, coal contributed to about 48% of freight revenue. Therefore, any shift in transport patterns of any of these bulk commodities (coal, cement, iron ore) could affect Railways' finances significantly.<sup>10</sup>

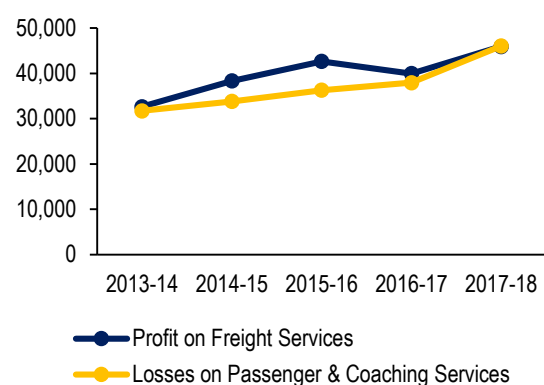
### Freight cross-subsidises passenger traffic

In 2017-18, passenger and other coaching services incurred losses of Rs 46,025 crore, whereas freight operations made a profit of Rs 45,923 crore.<sup>10</sup> Hence, all of the profit earned from freight

operations was utilised to compensate for the loss from passenger and other coaching services. The total passenger revenue during this period was Rs 48,643 crore. This implies that losses in the passenger business were about 94.6% of its revenue. Therefore, in 2017-18, for every one rupee earned from its passenger business, Indian Railways ended up spending Rs 1.95. As of 2017-18, except AC third tier and AC chair car services, all other classes of passenger services registered operational losses (Table 2).

NITI Aayog (2016) noted that such cross-subsidisation has resulted in high freight tariffs.<sup>11</sup> It also observed (2018) that high freight tariffs are one of the reasons for a sub-optimal share of Railways in freight.<sup>9</sup>

**Figure 5: Losses on Passenger and Other Coaching Services vis-a-vis Profit on Freight Services (Rs crore)**



Source: CAG; PRS.

**Table 2: Operational profit/loss of various classes of passenger services (in Rs crore)**

Class	2014-15	2015-16	2016-17	2017-18
AC-1st Class	-127	-176	-139	-165
1st Class	-70	-58	-53	-35
AC 2 Tier	-496	-463	-559	-604
AC 3 Tier	882	898	1,041	739
AC Chair car	-142	-6	118	98
Sleeper Class	-8,510	-8,301	-9,313	-11,003
Second class	-7,642	-8,570	-10,025	-11,524
Ordinary Class	-11,674	-13,238	-14,648	-16,568
EMU suburban services	-4,679	-5,125	-5,324	-6,184

Source: CAG; PRS.

Losses in passenger services are primarily caused due to: (i) passenger fares being lower than the costs, and (ii) concessions to various categories of passengers (senior citizens, National award winners etc.).<sup>11</sup> Railways classifies these provisions as social service obligations. The Committee on Restructuring Railways (2015) had observed that several decisions on the Indian Railways such as increase in fares, introduction of new trains, and provision of halts are not taken based on commercial considerations.<sup>12</sup>

The Standing Committee on Railways (2020) had recommended that both freight and passenger fares should be rationalised prudently.<sup>6</sup> It observed that any fare increase needs to take into account the competition from other transport modes.<sup>6</sup> The Committee recommended that the social service obligations of Railways should be revisited.<sup>6</sup>

#### *Budgetary support from central government*

The central government supports Railways in the expansion of its network and investments. Until recently, this budgetary support from the central government used to be the primary source of funds for capital expenditure for Railways. However, since 2015-16, an increasingly higher proportion of the capital expenditure is being met through extra budgetary resources. In 2019-20, 53% of the capital expenditure was met through extra-budgetary resources. In 2021-22, the gross budgetary support from the central government is proposed at Rs 1,07,300 crore. This is an annual increase of 26% over 2019-20 (Rs 67,842 crore).

#### *Extra Budgetary Resources*

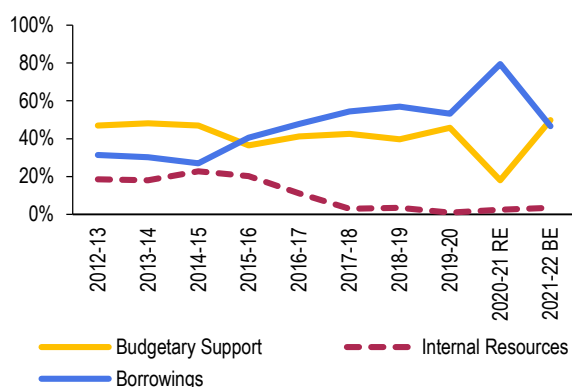
Extra Budgetary Resources include market borrowings such as financing from banks, institutional financing, and external investments. External investments in Railways could be in the form of public-private partnerships (PPPs), joint ventures, or market financing by attracting private investors to potentially buy bonds or equity shares in Railways. Railways mostly borrows funds through the Indian Railways Finance Corporation (IRFC). IRFC borrows funds from the market (through taxable and tax-free bond issuances, term loans from banks and financial institutions), and then follows a leasing model to finance the rolling stock assets and project assets of Indian Railways.

In the past few years, borrowings have increased sharply to bridge the gap between the available resources and expenditure. In 2021-22, Rs 1,00,258 crore is estimated to be raised through extra-budgetary resources, which is an annual increase of 13% over 2019-20. The Committee on Restructuring Railways (2015) had observed that increased reliance on borrowings could further exacerbate the financial situation of Railways.<sup>12</sup>

**Table 3: Capital Expenditure (in Rs crore)**

	2019-20 Actuals	2020-21 Revised	2021-22 Budget	CAGR (19-20 to 21-22)
Gross Budgetary Support	67,842	29,250	1,07,300	26%
Internal Resources	1,321	3,875	7,500	138%
Extra Budgetary Resources	78,902	83,292	1,28,567	13%
<b>Total</b>	<b>1,48,064</b>	<b>1,61,692</b>	<b>2,15,058</b>	<b>21%</b>

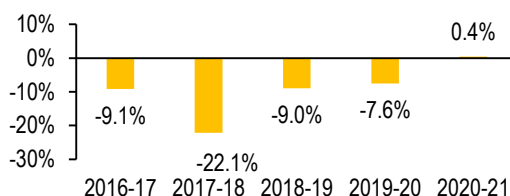
Sources: Expenditure Profile, Union Budget 2021-22; PRS.

**Figure 6: Source of funds - capital expenditure**

Note: RE – Revised Estimates, BE – Budget Estimates.  
Sources: Expenditure Profile, Union Budget 2021-22; PRS.

### Capital Expenditure

The total proposed capital expenditure for 2021-22 is Rs 2,15,058 crore. This is an annual increase of 21% over 2019-20. Majority of the capital expenditure will be financed through the budgetary support from the central government (50%) followed by extra budgetary resources (47%). For the first time since 2015-16, the budgetary support from the central government will be higher than the borrowings. Railways will fund only 3% of this capital expenditure from its own resources. Railways' capability to fund its capital expenditure from its own revenue stream has been declining (Figure 6). Over the last few years, actual capital expenditure has been considerably less than the budget estimates (Figure 7).

**Figure 7: Capital Expenditure - % change from budget estimates to actuals**

Source: Expenditure Profile; Union Budget Documents; PRS.

### Debt repayment

Railways pays lease charges to IRFC. The lease charges have a principal and interest component. The principal component of the lease charges forms part of the capital expenditure of Railways. In 2021-22, allocation towards payment of principal component of lease charges is Rs 19,459 crore (9% of the total capital expenditure), an annual increase of 36% over 2019-20 (Rs 10,462 crore).

CAG (2020) had observed that ideally, the principal component of lease charges should be paid from the Capital Fund.<sup>10</sup> Capital Fund is a dedicated fund of Railways to repay the principal component of market borrowing and financing works of capital nature.<sup>6</sup> However, no allocation has been made to this fund since 2015-16.

The Ministry of Railways noted that appropriation to the Capital Fund is made from net revenue after meeting obligatory revenue expenditure.<sup>6</sup> The Ministry further observed that no appropriation is being made to the Capital Fund due to inadequate internal resources.<sup>6</sup> Hence, gross budgetary support provided by the central government has been used to pay the principal component of lease charges. CAG (2020) observed that utilisation of gross budgetary support for repayment of lease charges is not a healthy trend as it deprives Railways of additional investments in capital works.<sup>10</sup> CAG (2019) had observed that if obligations towards IRFC have to be met from budgetary support, the government might as well borrow directly from the market, as the cost of borrowings would be lower.<sup>10</sup>

### Future Capital Expenditure Requirements

The Ministry of Railways has prepared the National Rail Plan 2030 for augmenting its infrastructure during the 2021-51 period.<sup>8</sup> The draft of the National Rail Plan 2030 (NRP), released in December 2020, noted that Railways could be left with a financing gap of over two lakh crore rupees for its capital expenditure projects in next five years.<sup>8</sup> This relates to the funding gap for projects under the annual work plan of Railways and the National Infrastructure Pipeline prior to the National Rail Plan.<sup>8</sup> The National Infrastructure Pipeline is a plan of infrastructure projects worth Rs 102 lakh crore between 2019-20 and 2024-25. It includes projects worth Rs 13.7 lakh crore for Railways pertaining to track infrastructure, terminal infrastructure, rolling stock, and urban public transport (Table 4). The draft National Rail Plan envisages an additional capital expenditure worth Rs 5.8 lakh crore during the 2021-26 period (Table 5).<sup>8</sup> However, note that there may be some overlap in projects envisaged under the National Rail Plan and the National Infrastructure Pipeline.<sup>8</sup>

**Table 4: Capital Expenditure Requirement for Railways under the National Infrastructure Pipeline (in Rs crore)**

Year	Amount
2019-20	1,33,387
2020-21	2,62,465
2021-22	3,08,800
2022-23	2,73,831
2023-24	2,21,209
2024-25	1,67,870
<b>Total</b>	<b>13,67,563</b>

Source: Draft National Rail Plan, Ministry of Railways; PRS.

The draft National Rail Plan estimates that on average, funds available with Indian Railways for capital expenditure over the next five years will be: (i) about Rs 60,000 crore per annum as gross budgetary support, (ii) about Rs 7,000 crore per annum from internal resources, and (iii) a

maximum of Rs 1,30,000 crore per annum from extra budgetary resources.<sup>8</sup> It noted that it would be challenging to fund the projects envisaged under the National Rail Plan from internal resources due to persistently high operating ratio.<sup>8</sup>

**Table 5: Cost of National Rail Plan (in Rs lakh crore)**

Head	2021-26	2026-31	2031-41	2041-51	Total
Dedicated Freight Corridors	-	1.5	0.5	0.3	2.3
High Speed Rail Corridors	-	5.1	2.9	7.0	15.0
Network improvements	1.3	0.7	2.2	1.8	6.0
Flyovers and Bypasses	0.8	-	-	-	0.8
Terminals	0.6	0.2	0.1	0.04	0.9
Rolling Stock	3.1	1.7	3.6	4.8	13.2
<b>Total</b>	<b>5.8</b>	<b>9.2</b>	<b>9.3</b>	<b>13.9</b>	<b>38.2</b>

Source: Draft National Rail Plan, Ministry of Railways; PRS.

### Revenue Expenditure

In 2021-22, Indian Railways is estimated to spend a significant portion of its money on staff (45% of its working expenditure), followed by expenses on pension fund (26%), and fuel (13%). In 2021-22, the total revenue expenditure by Railways is estimated at Rs 2,10,899 crore which is an annual increase of 10% over 2019-20.

#### Staff wages and pension

Staff wages and pension constitute about 70% of the Railways' estimated revenue expenditure in 2021-22. For 2021-22, the expenditure on staff is estimated at Rs 93,676 crore, which is an annual increase of 4% over 2019-20. The Committee on Restructuring Railways (2015) had observed that the Railways' expenditure on staff is extremely high and unmanageable.<sup>12</sup> It also sees a significant jump every few years due to revisions by the Pay Commission.

Allocation to the Pension Fund is estimated at Rs 53,300 crore, which is an annual increase of 6.4% over 2018-19. As discussed earlier, appropriation to the pension fund was much less than required in 2019-20 and 2020-21 (60% and 99% less than the budget estimate, respectively). The Standing Committee on Railways (2017) had observed that the pension bill may increase further in the next few years, as about 40% of the Railways staff was above the age of 50 years in 2016-17.<sup>13</sup>

The Standing Committee on Railways (2020) noted that the new pension scheme implemented in 2004 to reduce the pension bill will show results only around 2034-35.<sup>6</sup> The Committee recommended that feasibility of bearing a part of pension liabilities from the general revenue of the central government till 2034-35 should be explored.<sup>6</sup>

Further, employee costs (including pensions) reduces Railways' ability to generate a surplus and allocate resources towards operations.<sup>12</sup> The Committee on Restructuring Railways (2015) had recommended that Railways should rationalise its manpower, and make the organisation more business-oriented, amenable to private participation while retaining an optimal level of functional specialisation within.<sup>12</sup> Railways has taken steps to enhance private participation in the operation of passenger train services. For instance, proposals have been invited for private participation in the operation of passenger train services over 109 origin-destination pairs of routes through the introduction of 151 trains.<sup>14</sup> The private entity will be responsible for financing, procuring, operating, and maintaining these trains.

#### Lease Charges

The interest component of lease charges forms part of the revenue expenditure of Railways. In 2021-22, Rs 15,648 crore is estimated to be spent on the interest component of lease charges, which is an annual increase of 23% over 2019-20 (Rs 10,391 crore).

#### Fuel and electricity

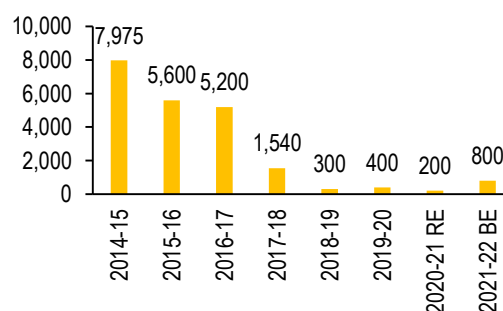
In 2021-22, the expense on fuel and electricity is estimated to be Rs 26,085 crore, an annual decrease of 9% over 2019-20 (Rs 31,573 crore).

### Appropriation to Funds

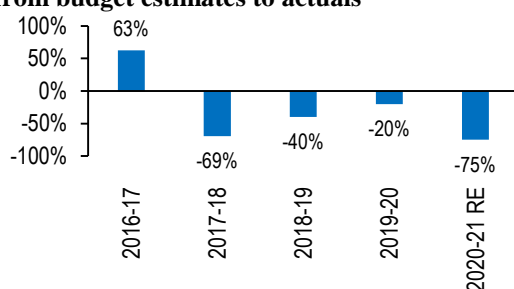
#### Depreciation Reserve Fund (DRF)

Appropriation to the DRF is intended to finance the costs of new assets replacing old ones.<sup>6</sup> In 2021-22, appropriation to DRF is estimated at Rs 800 crore. In the last few years, appropriation to DRF has declined (Figure 8). In recent years, appropriation has also been less than the budget estimates (Figure 9). As per CAG (2020), at the end of 2018-19, the value of over-aged assets pending for replacement using this fund was estimated to be Rs 96,403 crore.<sup>10</sup> CAG (2020) observed that provision to DRF for replacement and renewal of assets has been inadequate.<sup>10</sup>

**Figure 8: Appropriation to DRF (in Rs crore)**



Source: Expenditure Profile; Union Budget Documents; PRS.

**Figure 9: Appropriation to DRF- % change from budget estimates to actuals**

Source: Expenditure Profile; Union Budget Documents; PRS.

The Ministry of Railways observed that the decline in appropriation to DRF is due to major part of renewal and replacement works having safety implications being financed through Rashtriya Rail Sanraksha Kosh (RRSK).<sup>6</sup> RRSK was created in 2017-18 to finance critical safety-related works of renewal, replacement, and augmentation of assets.<sup>6</sup> The fund has a corpus of one lakh crore rupees over five years (partially funded by the central government). Railways is required to allocate Rs 5,000 crore annually to RRSK during these five years.<sup>6</sup> The Ministry observed that RRSK will not continue beyond 2021-22.<sup>6</sup> Beyond 2021-22, all renewal and replacement works will be financed from DRF.<sup>6</sup> This could lead to an increase in appropriation to DRF in the coming years.

#### Rashtriya Rail Sanraksha Kosh (RRSK)

In 2021-22, Railways has allocated Rs 5,000 crore towards RRSK. However, the actual appropriation to RRSK has been less than the requirement in all three years between 2018-19 and 2020-21.

**Table 6: Appropriation to RRSK (in Rs crore)**

Year	Budget	Actual	% change (Budget to Actual)
2018-19	5,000	3,024	-40%
2019-20	5,000	201	-96%
2020-21 RE	5,000	2,000	-60%
2021-22 BE	5,000	-	-

Note: RE: Revised Estimates, BE: Budget Estimates.

Sources: Expenditure Profile; Union Budget Documents; PRS.

The Ministry of Railways mentioned that the desired level of appropriation to RRSK has not been made due to adverse resource position.<sup>6</sup> The Standing Committee on Railways (2020) observed that the purpose of RRSK is gradually being eroded due to non-appropriation of required funds from internal resources of Railways.<sup>6</sup>

#### Expenditure on Safety

The expenditure on safety includes revenue expenditure such as repairs and maintenance of tracks and wagons. It also includes capital expenditure such as track renewals, bridge works, creating level crossings, and road over bridges and under bridges (Table 7). In 2021-22, Railways estimates to spend Rs 78,716 crore towards safety, an annual increase of 6.6% over 2019-20. In 2021-22, the capital expenditure towards safety-related

works is estimated to register an annual increase of 18.4% over 2019-20.

**Table 7: Expenditure on Safety (in Rs crore)**

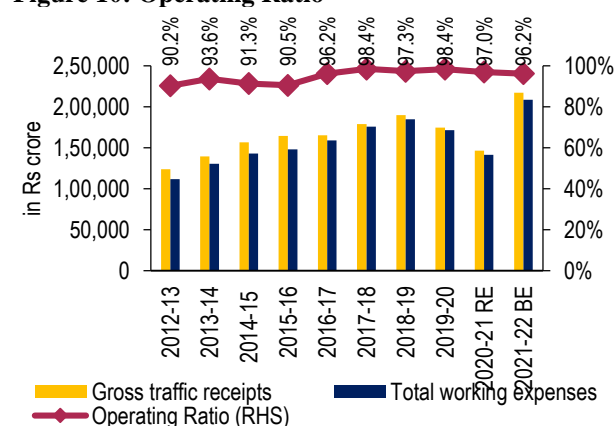
	2019-20 Actuals	2020-21 Revised	2021-22 Budget	CAGR (19-20 to 21-22)
Revenue	48,194	43,933	49,206	1.0%
Capital	21,047	26,094	29,510	18.4%
<b>Total</b>	<b>69,241</b>	<b>70,027</b>	<b>78,716</b>	<b>6.6%</b>

Sources: Expenditure Profile, Union Budget 2021-22; PRS.

#### Revenue Surplus and Operating Ratio

Railways' surplus is calculated as the difference between its total internal revenue and its revenue expenditure (this includes working expenses and appropriation to pension and depreciation funds). Operating Ratio is the ratio of the working expenditure (expenses arising from day-to-day operations of Railways) to the revenue earned from traffic. Therefore, a higher ratio indicates a poorer ability to generate a surplus that can be used for capital investments such as laying new lines or deploying more coaches. The CAG (2019) noted that in 2017-18, the decline in revenue surplus led to a decline in appropriation to the various funds managed by Railways from its internal resources.<sup>10</sup> As mentioned earlier, a similar trend has been seen in 2019-20 and 2020-21 where appropriation to the pension fund, DRF, and RRSK was reduced.

In the last decade, Railways has been struggling to generate a higher surplus. Consequently, the Operating Ratio has consistently been higher than 90% for more than a decade. In 2021-22, Railways expects to generate a surplus of Rs 6,561 crore. This is an annual increase of 103% over 2019-20 (Rs 1,389 crore). In 2019-20, the operating ratio worsened to 98.4% as compared to the estimated ratio of 95%. The CAG (2020) had noted that if certain advances for 2019-20 were not included in receipts for 2018-19, the operating ratio for 2018-19 would have been 101.77%.<sup>10</sup> If appropriation to the pension fund were to be as per the requirement, the operating ratio for 2019-20 and 2020-21 will be 114.2% and 131.5%, respectively.<sup>5</sup>

**Figure 10: Operating Ratio**

Sources: Expenditure Profile, Union Budget Documents; PRS.

### Network expansion and modernisation

Railways has not been able to meet some key physical targets for expansion and modernisation in recent years. It has missed its budget targets in all three years between 2017-18 and 2019-20 for: (i) construction of new lines, and (ii) gauge conversion (Table 8). In 2018-19 and 2019-20, Railways also missed targets for electrification of railway lines. Note that Railways aims to achieve 100% electrification of all broad gauge routes by 2023.<sup>6</sup> As per revised estimates for 2020-21, the achievement will be less than the budget target on almost all the indicators listed in Table 8. While examining the progress of construction of new lines, the Standing Committee on Railways (2020) had observed that revision in allocation towards capital expenditure requires reworking of priorities and rescheduling of activities, which leads to tardy progress in the construction of new lines.<sup>6</sup>

**Table 8: Physical targets- Underachievement**

Indicator	2017-18	2018-19	2019-20	2020-21 RE
Construction of new lines (Route Kms)	-49%	-52%	-28%	-40%
Gauge conversion (Route Kms)	-50%	-40%	-32%	-33%
Doubling of lines (Route Kms)	-45%	20%	-45%	-26%
Wagons (vehicle units)	-48%	-20%	-24%	-17%
Track renewals (Route Kms)	12%	7%	15%	-20%
Electrification (Route Kms)	2%	-12%	-37%	0%

Note: RE: Revised Estimates.

Source: Expenditure Profile; Union Budget Documents; PRS.



**ANNEXURE****Appendix I: Railways Budget 2021-22 Summary****Table 9: Railways Receipts and Expenditure for 2021-22 (in Rs crore)**

	2019-20	2020-21 Budget	2020-21 Revised	% Change (2020- 21 BE to 2020-21 RE)	2021-22 Budget	CAGR (2019- 20 to 2021-22 BE)
<b>Receipts</b>						
1 Passenger	50,669	61,000	15,000	-75%	61,000	10%
2 Freight	113,488	147,000	124,184	-16%	137,810	10%
3 Other traffic sources	10,200	17,613	7,125	-60%	18,300	34%
4 <b>Gross Traffic Receipts (1+2+3)</b>	<b>174,357</b>	<b>225,613</b>	<b>146,309</b>	<b>-35%</b>	<b>217,110</b>	<b>12%</b>
5 Miscellaneous	338	300	300	0%	350	2%
6 <b>Total Internal Revenue (4+5)</b>	<b>174,695</b>	<b>225,913</b>	<b>146,609</b>	<b>-35%</b>	<b>217,460</b>	<b>12%</b>
<b>Expenditure</b>						
7 Ordinary Working Expenses	150,211	162,753	140,786	-13%	154,399	1%
8 Appropriation to Pension Fund	20,708	53,160	523	-99%	53,300	60%
9 Appropriation to Depreciation Reserve Fund	400	800	200	-75%	800	41%
10 <b>Total Working Expenditure (7+8+9)</b>	<b>171,319</b>	<b>216,713</b>	<b>141,509</b>	<b>-35%</b>	<b>208,499</b>	<b>10%</b>
11 Miscellaneous	1,786	2,700	2,300	-15%	2,400	16%
12 <b>Total Revenue Expenditure (10+11)</b>	<b>173,105</b>	<b>219,413</b>	<b>143,809</b>	<b>-34%</b>	<b>210,899</b>	<b>10%</b>
13 <b>Net Surplus (6-12)</b>	<b>1,590</b>	<b>6,500</b>	<b>2,800</b>	<b>-57%</b>	<b>6,561</b>	<b>103%</b>
14 Appropriation to Development Fund	1,389	1,500	800	-47%	1,561	6%
15 Appropriation to Capital Fund	-	-	-	-	-	-
16 Appropriation to Debt Service Fund	-	-	-	-	-	-
17 Appropriation to Railway Safety Fund	-	-	-	-	-	-
18 Appropriation to Rashtriya Rail Sanraksha Kosh	201	5,000	2,000	-60%	5,000	399%
19 <b>Operating Ratio</b>	<b>98.4%</b>	<b>96.3%</b>	<b>97.0%</b>		<b>96.2%</b>	

Note: RE – Revised Estimate, BE – Budget Estimate.

Source: Expenditure Profile; Union Budget 2021-22; PRS.

**Explanatory Notes**Performance parameters

1. 'Net Surplus' represents the excess of revenue receipts over revenue expenditure (Railways' internal revenue and expenditure).
2. 'Operating Ratio' is the ratio of operating expenses to receipts. A lower ratio indicates a higher surplus availability for investments.

Railway Funds

3. Depreciation Reserve Fund – Finances the cost of new assets replacing old assets including the cost of any improved features. Appropriation to this fund is made on the recommendations of the Railway Convention Committee (RCC).
4. Pension Fund – Finances all pension payments to retired Railway staff.
5. Rashtriya Rail Sanraksha Kosh - Finances critical safety-related works of renewal, replacement and augmentation of assets.

## Appendix II: Details of freight and passenger traffic

**Table 10: Freight traffic details (NTKM in millions; Earnings in Rs crore)**

Commodity	2019-20		2020-21 Revised		2021-22 Budget		CAGR (2019-20 to 2021-22 BE)		% share in 2021-22 BE	
	NTKM	Earning	NTKM	Earning	NTKM	Earning	NTKM	Earning	NTKM	Earning
Coal	293,051	54,427	218,020	49,776	267,019	61,485	-5%	6%	37%	45%
Iron Ore	50,321	10,966	57,991	12,990	59,508	14,072	9%	13%	8%	10%
Cement	63,933	8,745	64,630	9,482	67,440	10,794	3%	11%	9%	8%
Other Goods	53,631	7,389	60,407	7,946	59,064	8,942	5%	10%	8%	6%
Foodgrains	52,641	6,154	74,344	9,397	64,860	8,866	11%	20%	9%	6%
Pig Iron & finished steel	45,029	7,287	41,693	6,863	47,070	8,772	2%	10%	7%	6%
Fertilisers	47,162	5,808	49,720	6,618	49,305	7,358	2%	13%	7%	5%
Container Service	56,686	2,554	50,837	5,447	56,032	6,518	-1%	60%	8%	5%
Petroleum & Lubricants	30,774	5,928	30,330	5,803	29,992	6,088	-1%	1%	4%	4%
Miscellaneous earnings	-	2,016	-	7,979	-	2,518	-	12%	0%	2%
Raw Material for Steel Plants	14,437	2,216	12,520	1,882	14,661	2,397	1%	4%	2%	2%
<b>Total</b>	<b>707,665</b>	<b>113,488</b>	<b>660,492</b>	<b>124,184</b>	<b>714,951</b>	<b>137,810</b>	<b>1%</b>	<b>10%</b>	<b>-</b>	<b>-</b>

Notes: NTKM – Net Tonne Kilometre (One NTKM is the net weight of goods carried for a kilometre); RE – Revised Estimates; BE – Budget Estimates. Source: Expenditure Profile; Union Budget 2021-22; PRS.

**Table 11: Passenger traffic details (PKM in millions; Earnings in Rs crore)**

	2019-20		2020-21 Revised		2021-22 Budget		CAGR (2019-20 to 2021-22 BE)	
	PKM	Earning	PKM	Earning	PKM	Earning	PKM	Earning
<b>Total Suburban</b>	<b>137,130</b>	<b>2,843</b>	<b>17,189</b>	<b>345</b>	<b>157,435</b>	<b>3,746</b>	<b>7%</b>	<b>15%</b>
<b>Non-Suburban</b>								
AC First class	1,696	453	481	230	1,860	581	5%	13%
AC Sleeper	22,771	3,779	5,257	1,561	24,137	4,879	3%	14%
AC 3 Tier	95,593	12,370	23,518	5,444	91,149	12,778	-2%	2%
Executive Class	617	180	42	22	520	277	-8%	24%
AC Chair Car	10,669	1,754	1,456	428	10,537	2,023	-1%	7%
First Class (M&E)	20	13			27	21	16%	26%
First Class (ordinary)	330	16	2	0	378	21	7%	16%
Sleeper Class (M&E)	267,629	13,552	56,836	5,149	304,243	18,596	7%	17%
Sleeper Class (ordinary)	1,849	90	1	0	972	55	-27%	-22%
Second Class (M&E)	383,858	12,563	30,518	1,787	365,063	13,957	-2%	5%
Second Class (Ordinary)	128,576	3,057	817	34	142,806	4,066	5%	15%
<b>Total Non-Suburban</b>	<b>913,608</b>	<b>47,826</b>	<b>118,928</b>	<b>14,655</b>	<b>941,692</b>	<b>57,254</b>	<b>2%</b>	<b>9%</b>
<b>Total</b>	<b>1,050,738</b>	<b>50,669</b>	<b>136,117</b>	<b>15,000</b>	<b>1,099,127</b>	<b>61,000</b>	<b>2%</b>	<b>10%</b>

Notes: PKM – Passenger Kilometre (One PKM is when a passenger is carried for a kilometre); RE – Revised Estimates; BE – Budget Estimates. Source: Expenditure Profile; Union Budget 2021-22; PRS.

<sup>1</sup> “Evolution – About Indian Railways”, Ministry of Railways, last accessed on February 2, 2021, [http://www.indianrailways.gov.in/railwayboard/view\\_section.jsp?lang=0&id=0.1.261](http://www.indianrailways.gov.in/railwayboard/view_section.jsp?lang=0&id=0.1.261).

<sup>2</sup> Budget Speech 2021-22, February 1, 2021, [https://www.indiabudget.gov.in/doc/Budget\\_Speech.pdf](https://www.indiabudget.gov.in/doc/Budget_Speech.pdf).

<sup>3</sup> Overview of Receipts and Expenditure, <https://www.indiabudget.gov.in/doc/eb/railstat1.pdf>; Railway Expenditure, <https://www.indiabudget.gov.in/doc/eb/railstat2.pdf>, Investment: Part A Financials (Budget + IEBR), Investment: Part B Physical Targets, Investment: Part C Revenue Earning Traffic Performance Targets, <https://www.indiabudget.gov.in/doc/eb/railstat4.pdf>, Railway Budget at a Glance, Expenditure Profile, Union Budget 2021-22.

<sup>4</sup> “Cancellation of all train Services by Indian Railways in the wake of COVID-19”, Press Information Bureau, Ministry of Railways, March 22, 2020.

<sup>5</sup> Notes on Overview of Receipts and Expenditure- Railways, Expenditure Profile, Union Budget 2021-22, <https://www.indiabudget.gov.in/doc/eb/railstat1.pdf>.

<sup>6</sup> “3<sup>rd</sup> Report: Demand for Grants (2020-21) - Ministry of Railways”, Standing Committee on Railways, 2020-21, [http://164.100.47.193/lssccommittee/Railways/17\\_Railways\\_3.pdf](http://164.100.47.193/lssccommittee/Railways/17_Railways_3.pdf).

<sup>7</sup> “India Transport Report: Moving India to 2032: Volume II, National Transport Development Policy Committee 2013, June 17, 2014. [http://planningcommission.gov.in/sectors/index.php?sectors=National%20Transport%20Development%20Policy%20Committee%20\(NTDPC\)](http://planningcommission.gov.in/sectors/index.php?sectors=National%20Transport%20Development%20Policy%20Committee%20(NTDPC)).

<sup>8</sup> The Draft National Rail Plan, Ministry of Railways, December 2020, <http://indianrailways.gov.in/NRP-%20Draft%20Final%20Report%20with%20annexures.pdf>.

<sup>9</sup> “Strategy for New India @75”, NITI Aayog, November 2018, [https://niti.gov.in/writereaddata/files/Strategy\\_for\\_New\\_India.pdf](https://niti.gov.in/writereaddata/files/Strategy_for_New_India.pdf).

<sup>10</sup> Report No. 8 of 2020: Railways Finances, Financial Audit, For the year ended March 2019, Report of the Comptroller and Auditor General of India, July 20, 2020, [https://cag.gov.in/uploads/download\\_audit\\_report/2020/Report%20No.%208%20of%202020\\_English-05f75b32f3ecdc0.39910555.pdf](https://cag.gov.in/uploads/download_audit_report/2020/Report%20No.%208%20of%202020_English-05f75b32f3ecdc0.39910555.pdf).

<sup>11</sup> “Reviewing the Impact of “Social Service Obligations” by Indian Railways”, NITI Aayog, [http://niti.gov.in/writereaddata/files/document\\_publication/Social-Costs.pdf](http://niti.gov.in/writereaddata/files/document_publication/Social-Costs.pdf).

<sup>12</sup> Report of the Committee for Mobilization of Resources for Major Railway Projects and Restructuring of Railway Ministry and Railway Board, Ministry of Railways, June 2015, [http://www.indianrailways.gov.in/railwayboard/uploads/directorate/HLSRC/FINAL\\_FILE\\_Final.pdf](http://www.indianrailways.gov.in/railwayboard/uploads/directorate/HLSRC/FINAL_FILE_Final.pdf).

<sup>13</sup> “13<sup>th</sup> Report: Demands for Grants (2017-18)”, Standing Committee on Railways, March 10, 2017, [http://164.100.47.193/lssccommittee/Railways/16\\_Railways\\_13.pdf](http://164.100.47.193/lssccommittee/Railways/16_Railways_13.pdf).

<sup>14</sup> “Ministry of Railways invites Request for Qualifications (RFQ) for private participation for operation of passenger train services over 109 Origin Destination (OD) pairs of routes”, Press Information Bureau, Ministry of Railways, July 1, 2020.

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