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# RF OI

RAILWAY FREIGHT ACTIVITY OPTIMISM INDEX

Q4 2022



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# EXECUTIVE SUMMARY

## OBJECTIVE

- RFAOI is a forwarding looking index of pan India rail freight activity
- An important input in supply chain planning of service providers, supply side industries and government
- Stakeholders will be able to identify the expected shift in demand and supply and meet expectations for operational efficiency across segments/regions to make informed decisions
- A ready reckoner for policy makers to understand the requirement of the user industries and plan towards meeting supply/investment demand



The Railway Freight Activity Optimism Index (RFAOI) is a unique index aiming to capture the optimism level of rail freight users (industry players and logistics service providers) i.e. whether the rail freight activity is expected to improve, remain stagnant or decline. The index is composed of 14 sub-parameters across four sub-indices



### Optimism for factors of supply

- Availability of wagons
- Availability of labour
- Connectivity: frequency of availability of rakes
- First & last mile connectivity



### Optimism for demand

- Domestic Trade
- Captive trade
- Export
- Import



### Optimism for operational efficiency

- Loading and unloading of goods
- Transit time
- Utilization of containers
- Utilization of wagons



### Optimism towards investment activity

- Investment in mechanization for loading and unloading
- Investment in technology

## KEY TAKEAWAYS



Railway Freight Activity Optimism Index for Q4 2022 stands at 68, indicating high optimism level of user industries and logistic service providers, towards transporting goods using railways, four percentage points higher than Q2 2022 and only one percentage point higher than Q3 2022

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Optimism for investment activity in Q4 2022 is the highest amongst the four sub-indices improving by four points to 71 from Q3 2022

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Businesses were most optimistic about loading and unloading of goods (optimism index at 76), and least optimistic about import freight demand (optimism level at 60) amongst the 14 parameters used to gauge the optimism level of business across the five railway zones

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Survey reveals increase in optimism level was highest for first and last mile connectivity and frequency of rakes on existing/new routes and optimism levels fell the most for utilization in wagons and export freight demand in Q4 compared to Q3

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Region-wise businesses using railways in the southern region were the least optimistic, especially with regards to demand, supply factors and operational efficiency

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Businesses in the eastern region are most optimistic about investment in connectivity (optimism level at 86), while businesses in the southern region were the least optimistic about supply factors i.e. availability of wagons/containers and labour

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More than three fourth of the respondents who transport around 26% -50% of goods through railways want to increase their share of goods transported through railways

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Amongst businesses, more than half of the large scale business expect cost to increase. Large businesses have in fact revealed the most increase in cost of transportation in Q4 2022 compared to last quarter

# RAILWAY FREIGHT ACTIVITY OPTIMISM INDEX (RFAOI)

Railway Freight Activity Optimism Index, indicating optimism level of user industries and logistic service providers, towards transporting goods using railways, for Q4 2022 stands at 68, one percentage point higher than Q3 2022

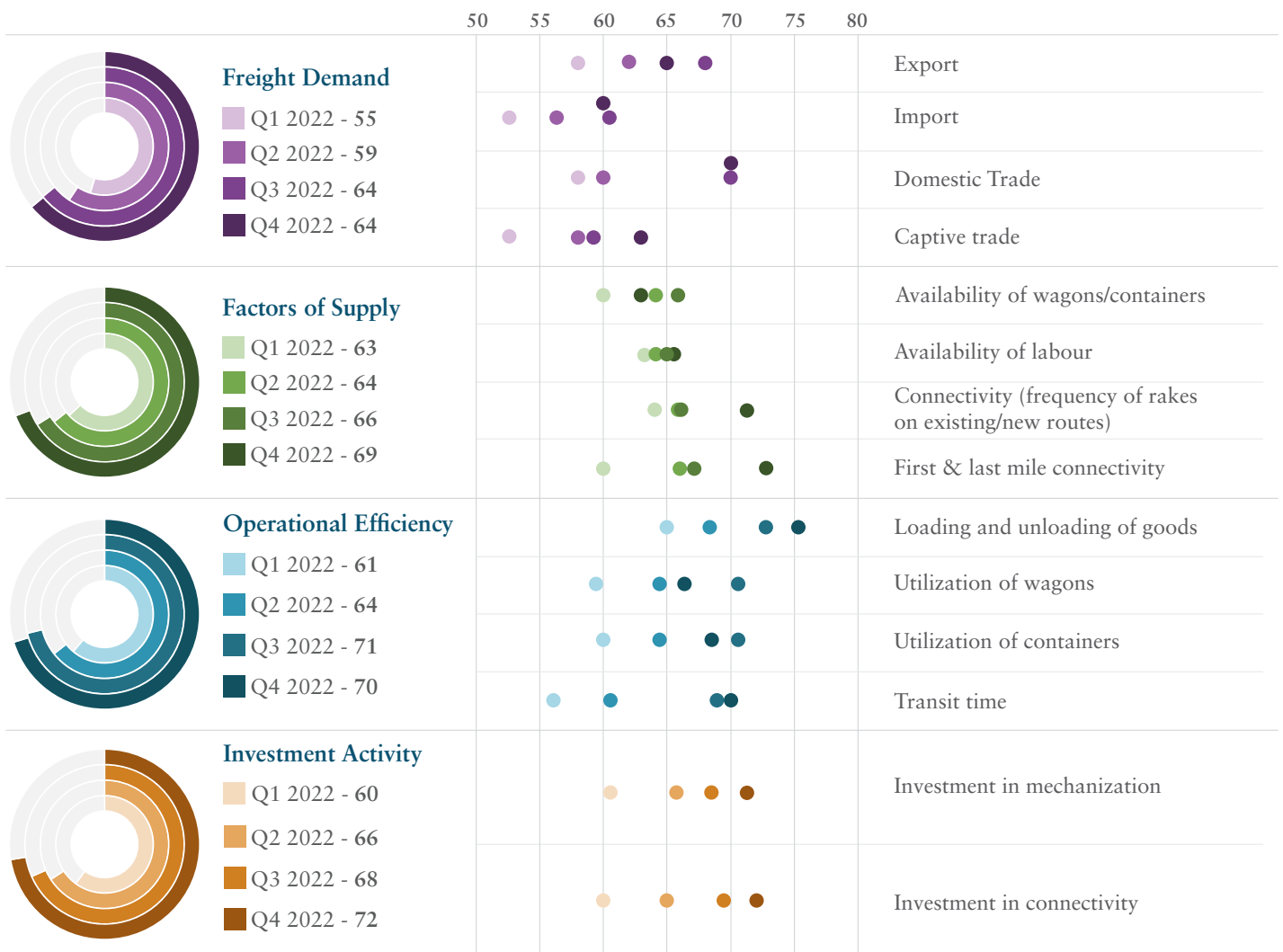
## RFAOI FOR Q3 2022



## SUB-INDICES

Out of four sub-indices, optimism for investment activity is the highest at 72, whereas optimism for demand is the least at 64

## SUB-INDICES AND THE CONSTITUENT PARAMETERS





## RFAOI SUB-INDEX: OPTIMISM FOR FACTORS OF SUPPLY

- Optimism for factors of supply chain increased by three percentage point gain in Q4 2022
- Optimism for availability of wagons/containers declined by two percentage points compared to last quarter
- Size-wise, optimism for medium players were lowest for availability of wagons/containers (optimism level at 60) and availability of labour (optimism level at 63)
- Businesses in the eastern region were the most optimistic for all supply side parameters while businesses in the southern region were least optimistic about availability of wagons/containers and labours

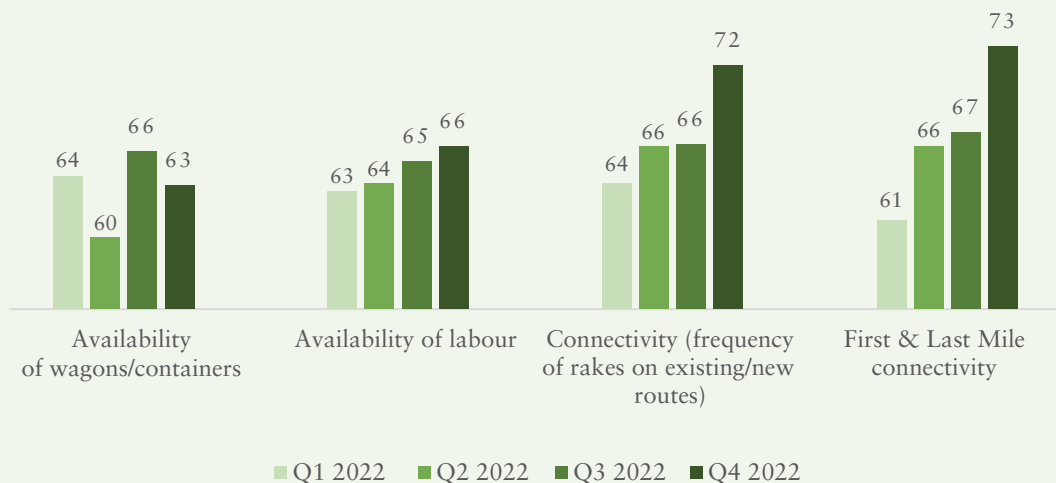


- Q1 2022 - 63
- Q2 2022 - 64
- Q3 2022 - 66
- Q4 2022 - 69



- The World Bank loan will help to leverage private sector efficiency for integrating rail transportation into cargo supply chains, strengthen India’s multimodal transport hubs and terminals by improving rail links with ports and inland gateways, and building first- and last-mile connectivity to railways
- The government recently revealed that more than 450 railway projects worth greater than Rs 7 trillion are in different stages of planning/sanction/execution and the focus is on completion of capacity enhancement projects, last mile connectivity projects, National Projects and Gauge Conversion Projects etc.

### Optimism for Factors of Supply: Sub-parameters



## RFAOI SUB-INDEX: OPTIMISM FOR OPERATIONAL EFFICIENCY

- Optimism for operational efficiency in Q4 2022 declined the most amongst the four indices in Q4 compared to Q3
- Optimism level fell the most for utilization of wagons (optimism index at 67 in Q4 compared to 71 in Q3)
- Businesses were most optimistic about loading and unloading of goods (optimism index at 76), with large businesses revealing highest optimism on this parameter

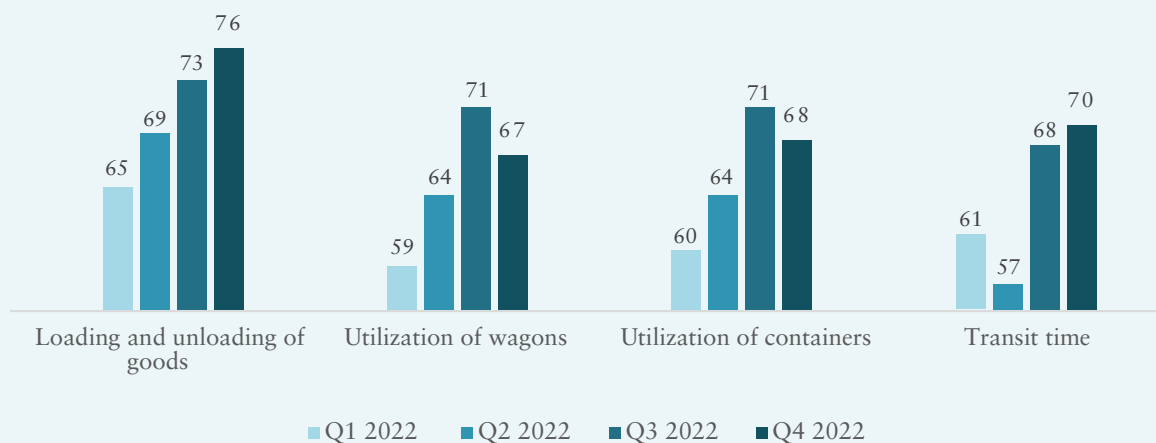


- Q1 2022 - 61
- Q2 2022 - 64
- Q3 2022 - 71
- Q4 2022 - 70



- 2,000 km of rail network to be brought under 'Kavach' programme in FY23. This aims for safety and capacity augmentation using indigenous world-class technology
- Indian Railways plans to add new products and services for farmers and small businesses
- 400 new generation Vande Bharat Trains to be developed in the next 3 years with improved energy efficiency and better riding experience

### Optimism for Operational Efficiency: Sub-parameters



## RFAOI SUB-INDEX: OPTIMISM FOR INVESTMENT ACTIVITY

- Optimism level for investment activity remains the highest and has improved the most by four percentage points to 72 in Q4 2022
- Businesses across regions and all sizes are optimistic about investment in railways
- However, businesses using the western railways are less optimistic about investment in mechanization (optimism index at 64) and business using the southern railways are least optimistic about connectivity in their operational routes (optimism index at 63)

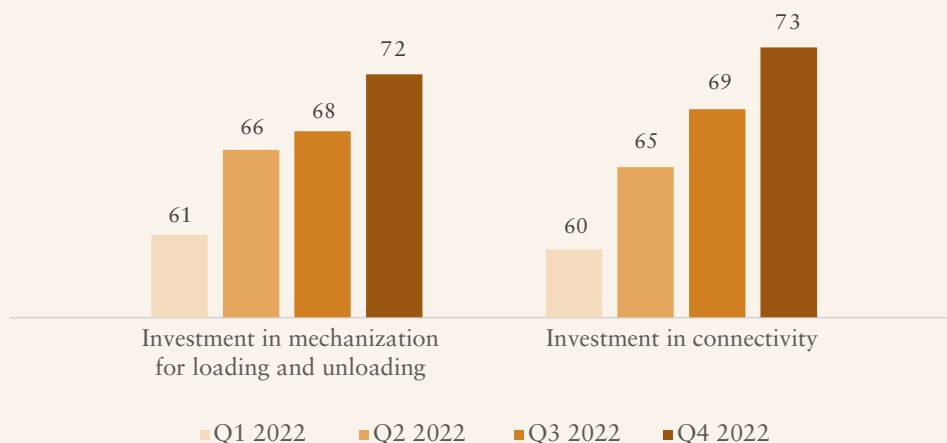


- Q1 2022 - 60
- Q2 2022 - 66
- Q3 2022 - 68
- Q4 2022 - 72



- PM GatiShakti aims to transform multi-modal connectivity offering higher efficiency
- More than 450 railway projects worth greater than Rs 7 trillion are in different stages of planning/sanction/execution
- Loans from the World Bank (US\$ 245) to be used to modernize rail freight and logistics infrastructure

### Optimism for Investment Activity: Sub-parameters





## RFAOI SUB-INDEX: OPTIMISM FOR DEMAND

- Along with operational efficiency, optimism level for demand fell marginally by 0.2 percentage points in Q4 to 64 compared to the previous quarter
- Optimism level for both export and import freight demand fell from the previous quarter (by three and one percentage points respectively) and optimism for domestic demand remained unchanged
- Optimism level for import (optimism level at 60) remained the lowest amongst the 14 parameters used to gauge the optimism for rail freight activity
- Small businesses and businesses operating in the southern region remained the least optimistic about the indicators of freight demand

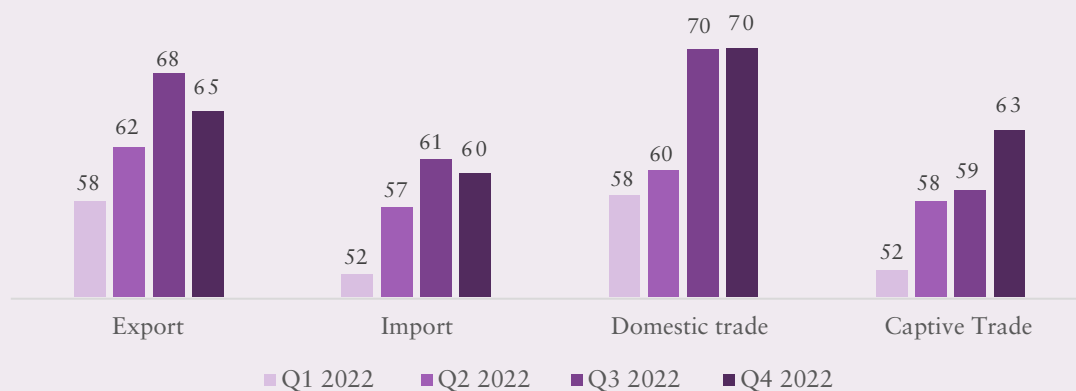


- Q1 2022 - 55
- Q2 2022 - 59
- Q3 2022 - 64
- Q4 2022 - 64



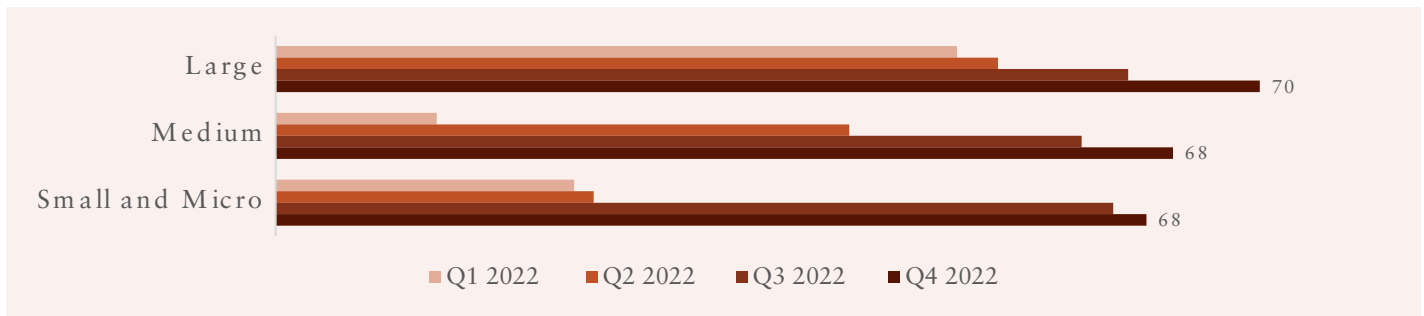
- Global trade is expected to remain subdued impacting the optimism level of exporters and importers. World Trade Organization expects global merchandise trade volumes to increase by 1% in 2023, down sharply from its earlier estimation of 3.4%
- Domestic demand is expected to remain resilient, supporting domestic trading activity, as India would be the fastest growing economy in FY23
- India has partnered with 17 countries to alleviate near-term transportation, logistics and supply chain disruption and bottlenecks, as well as long-term resilience challenges

### Optimism for Demand: Sub-parameters



## RFAOI: BY SIZE OF BUSINESSES

Business of all sizes were found to be least optimistic about import freight demand



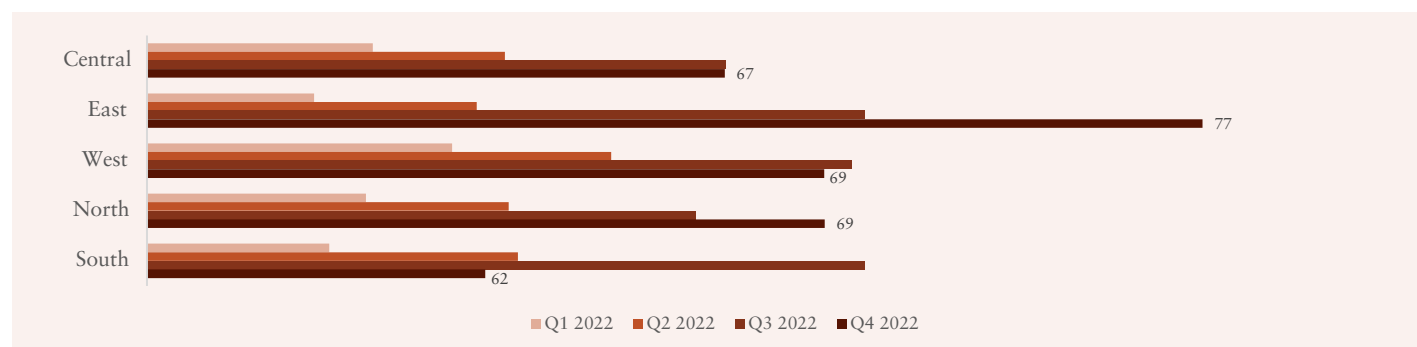
- Optimism for small businesses for freight activity remained subdued in Q4, increasing by only 0.5 percentage points
- Large, medium and small scale businesses were the most optimistic about loading and unloading of goods in Q4 2022, their optimism level was at 78, 75 and 74, in that order

Sub-indices	Parameters	Large	Medium	Small
Demand	Export	●	●	●
	Import	●	●	●
	Domestic Trade	●	●	●
	Captive trade	●	●	●
Supply	Availability of wagons/containers	●	●	●
	Availability of labour	●	●	●
	Connectivity (frequency of rakes)	●	●	●
	First & last mile connectivity	●	●	●
Operational Efficiency	Loading and unloading of goods	●	●	●
	Utilization of wagons	●	●	●
	Utilization of containers	●	●	●
	Transit time	●	●	●
Investment	Investment in mechanization for loading and unloading	●	●	●
	Investment in technology	●	●	●

In the above table, higher color intensity, indicates higher optimism level

## RFAOI: BY REGION

Southern region is the least optimistic about availability of wagons/containers and utilization of wagons/containers amongst the five regions



- Region-wise businesses using railways in the southern region were the least optimistic, especially with regards to demand, factors of supply and operational efficiency
- Optimism level of businesses in the southern region dropped the most followed by the western region in Q4 2022 compared to Q3 2022, while it increased the most for players using the eastern railways
- Businesses in the eastern region are most optimistic about investment in connectivity (optimism level at 86), while businesses in the southern region were the least optimistic about supply factors i.e. availability of wagons/containers and labour
- Businesses across regions were least optimistic about import freight demand (optimism level at 60) followed by availability of wagons/containers

Sub-indices	Parameters	Central	Eastern	Western	Northern	Southern
Demand	Export	Light Blue	Dark Blue	Light Blue	Light Blue	Light Blue
	Import	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
	Domestic Trade	Dark Blue	Dark Blue	Light Blue	Light Blue	Light Blue
	Captive trade	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
Supply	Availability of wagons	Light Blue	Dark Blue	Light Blue	Light Blue	Light Blue
	Availability of labour	Light Blue	Dark Blue	Light Blue	Light Blue	Light Blue
	Connectivity (frequency of rakes)	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Light Blue
	First & last mile connectivity	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Light Blue
Operational Efficiency	Loading and unloading of goods	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Light Blue
	Utilization of wagons	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
	Utilization of containers	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
	Transit time	Light Blue	Light Blue	Dark Blue	Dark Blue	Light Blue
Investment	Investment in mechanization for loading and unloading	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
	Investment in technology	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Light Blue

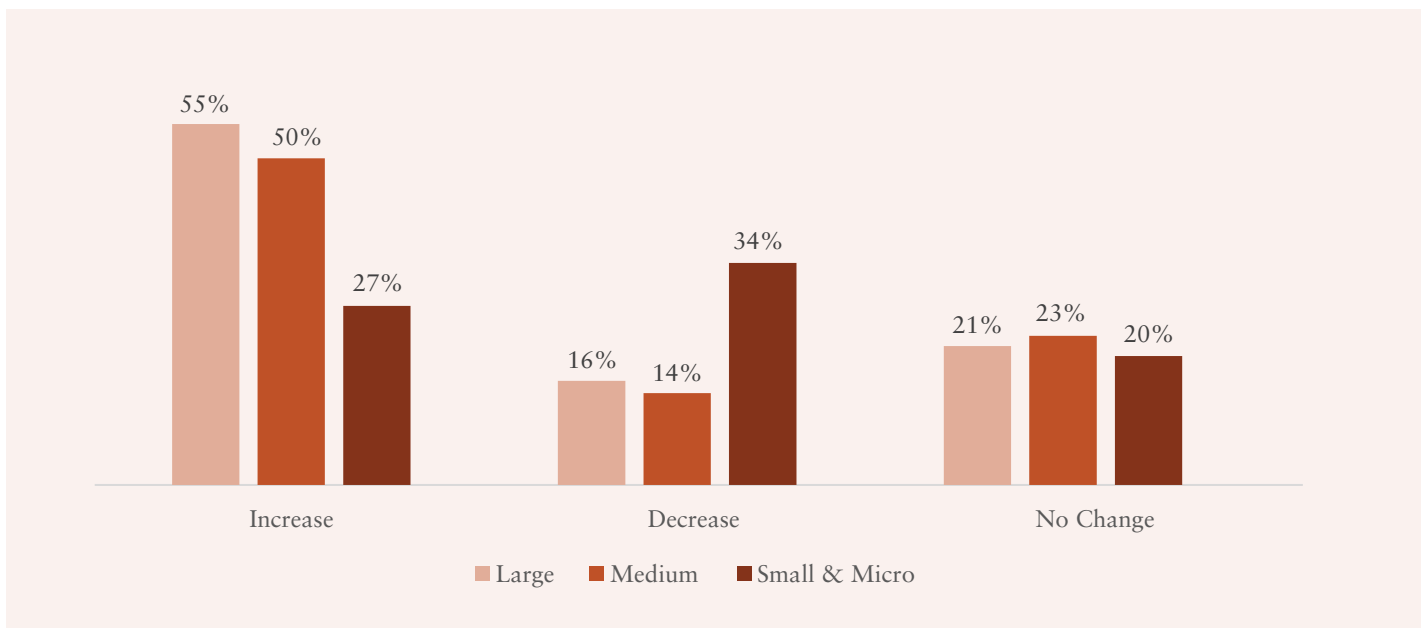
In the above table, higher color intensity, indicates higher optimism level

## COST OF TRANSPORTING GOODS

44% of businesses expect cost\* of transportation to increase in Q4 2022. Amongst businesses, more than half of the large scale business expect cost to increase. Large businesses have in fact revealed the most increase in cost of transportation in Q4 2022 compared to last quarter; 55% stated increase in Q4 while 39% stated cost to increase in Q3 2022

*Cost inclusive of freight and other costs (any additional cost of door-bridging, charges for first/last mile road transportation and handling at origin and destination points, haulage charges etc)*

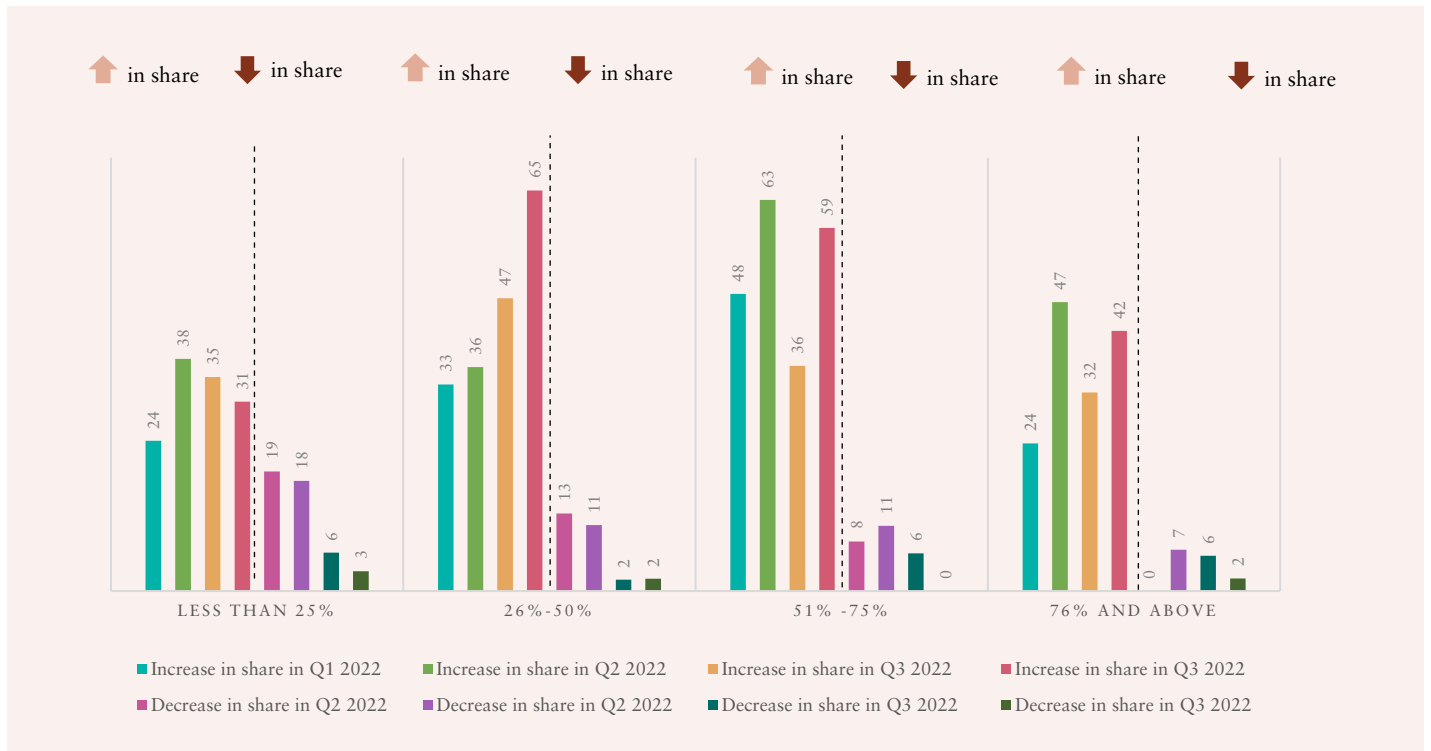
### Perceived change in overall cost of transportation (freight and other costs) in Q4 2022



# SHARE OF GOODS TRANSPORTED THROUGH RAILWAYS

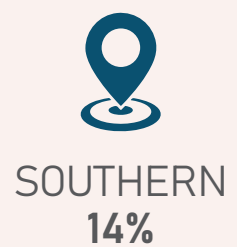
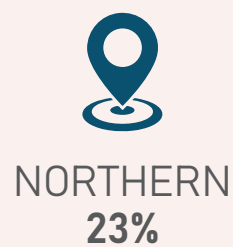
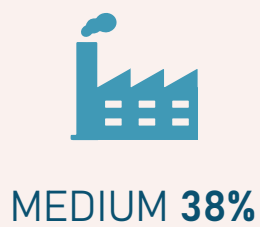
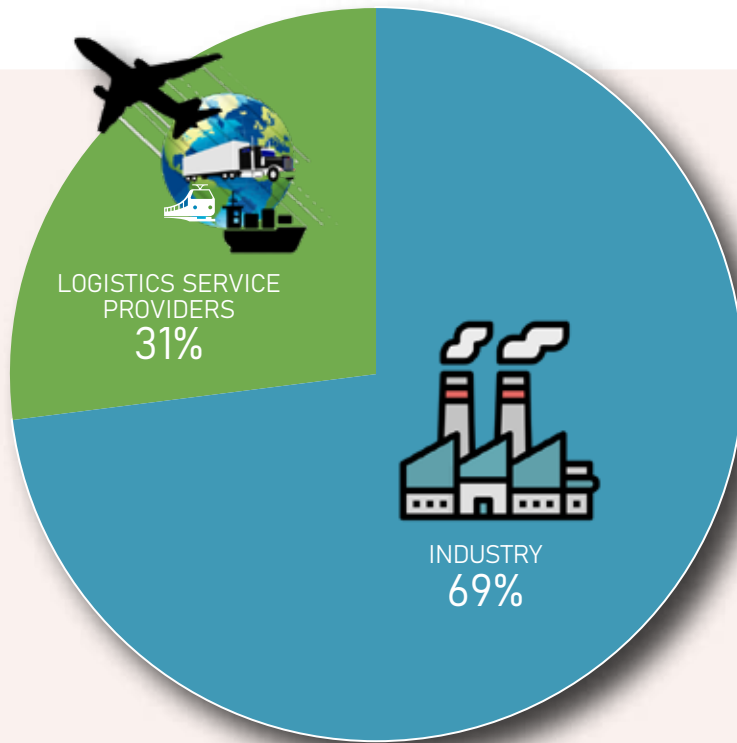
- Majority of the respondents i.e., 41% reveal their intent to increase the share of goods transported via railways
- Further break-up of the survey data showed that, more than three fourth of the respondents who transport around 26% - 50% of goods through railways want to increase their share of goods transported through railways

Percentage share of goods transported through railways





# FIRMOGRAPHICS



## ABOUT THE INDEX

Dun & Bradstreet conducted a pan India survey of more than 300 Large, Medium, Small, and Micro players to create the RFAOI index. This is a unique, forward looking index, capturing the optimism of user industries and logistics service providers on Rail Freight Activity for the forthcoming quarter. The index is composed of four sub-indices viz Optimism for Freight Demand, Optimism for Supply Factors, Optimism for Operational Efficiency and Optimism towards Investment Activity. Each of the sub-indices constitute of four parameters each, except for investment. There are a total of 14 parameters

Survey sought respondent's expectation towards freight demand, improvement in supply factors, gains in operational efficiencies, and improvement in the railway investment in terms of an increase, decrease or no change for the upcoming quarter compared to the same quarter in the previous year

The percentage share of responses indicating increase, decrease or no change were then aggregated to arrive at a diffusion index. The diffusion index for each parameter was then multiplied by respective weights and aggregated to arrive at the Railway Freight Activity Optimism Index (RFAOI). The derived index value can range between 0 to 100, with 50 being the neutral level of optimism viz-a-viz the base period. An Index value above 50, indicates an increase in the level of optimism from the previous year's quarter and vice-versa

## RESEARCH TEAM

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