

Initiating Coverage

23<sup>rd</sup> April 2025



Frontier Springs Ltd.

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SNM VALUE EDUCATOR RESEARCH SERVICES  
LLP:  
Emerging Titans

RA No: INH000019789



# Frontier Spring LTD | BUY

## Proxy play on Indian Railway growth story

We initiate coverage of BUY rating on Frontier Spring Ltd, Company has strong market position of around 50% market share in coaches and locomotive coil spring and improving financials make it a high-growth investment opportunity. With significant upside potential, margin expansion, Frontier spring is well positioned for sustained revenue and earnings growth over the next few years and to deliver long-term shareholder value.



### Market Leadership in a High-Entry-Barrier Segment

Frontier Springs Ltd is one of the very few Indian companies with a long track record and approved vendor status for manufacturing critical suspension components such as coil springs, air springs, and laminated bearing springs used in railway coaches, wagons, and locomotives. These products must comply with stringent safety, quality, and durability standards, creating high technical and regulatory entry barriers. The company's early mover advantage and established relationships with Indian Railways, ICF, RCF, and MCF, as well as with global OEMs like Alstom, Siemens, Bombardier, reinforce its dominant market position.

### Operating Leverage & Margin Expansion

Frontier Springs Ltd stands to benefit significantly from operating leverage, as its recent capacity expansion allows for higher output without proportional increases in fixed costs. As volumes scale, especially with rising demand from Indian Railways and Metro segments, fixed overheads are spread across more units—driving margin expansion. The company's shift towards high-margin products like air springs (22–23% EBITDA margin) and specialized forgings, coupled with increased automation and process optimization, further enhances profitability.

### Structural Rail Capex Tailwinds:

The government's continued emphasis on modernizing railway infrastructure, increasing production of LHB coaches, and the shift toward semi-high-speed trains (like Vande Bharat) ensures sustained demand for Frontier Springs' products. Additionally, replacement demand (coach life of ~23 years, spring replacement cycle every 5 years) creates a recurring revenue stream, with three open bidding cycles over each lifecycle.

Recommendation	BUY
Allocation	3%
CMP (at initiation)	₹2285
Market Cap (₹ Cr)	₹892
52 Week High/Low	₹2,644/ ₹1,152.00
BSE code	522195

### Shareholding pattern

Promoter	51.76%
FII+DII	0%
Others	48.24%

### Financial Summary

(₹ Cr)	FY22	FY23	FY24
Revenues	84	107	135
EBITDA (%)	15%	12%	16%
PAT	8	7	13
ROCE (%)	18%	15%	14%



## COMPANY OVERVIEW

### Frontier Spring

- Frontier Springs Ltd (FSL), incorporated in 1981, is a specialized manufacturer of critical suspension components for railway rolling stock, including hot coil springs, laminated bearing springs, air springs, and forged components. The company primarily caters to Indian Railways, Metro projects, and select global clients through indirect exports. With over four decades of experience, FSL has built strong technical capabilities and deep domain knowledge, enabling it to maintain a niche position in a high-entry-barrier industry

### Core Business Divisions :

#### 1. Coil Springs Division

- Core Revenue Driver & High-Volume Business . This is FSL's flagship business, contributing the majority of the company's revenue. Frontier Springs is one of the approved vendors for Indian Railways for manufacturing hot coil springs used in various rolling stock passenger coaches, wagons, and locomotives. These springs are critical suspension components that ensure stability, ride comfort, and safety.
- Stable Demand Cycle: Coil springs have a standard replacement cycle of 5 years. Given that rail coaches and wagons have a lifecycle of 22–25 years, and each has to go through at least 3 replacement cycles, this ensures long-term recurring demand.
- High Fungibility: The coil springs are largely fungible across multiple rolling stock platforms, meaning once approved, FSL's products can be used across various OEMs and aftermarket buyers.
- Volume & Pricing Power: FSL earns ~₹50,000 revenue per wagon through coil spring supply. Pricing is relatively stable due to tender-based contracts with escalation clauses, protecting margins.
- Capacity Expansion: The company has recently enhanced its coil spring production capacity to cater to rising demand, especially as Indian Railways increases wagon and coach production.





## 2. Forging Division

This division is equipped with heavy-duty forging hammers, die-forging presses, and advanced CNC machining lines to ensure dimensional precision and high-strength tolerances. Frontier Springs has developed tooling and infrastructure capable of handling high-volume, complex forgings with tight metallurgical standards. It supplies to Indian Railways, private wagon manufacturers, metro rail projects, and is exploring export markets. A key synergy is the ability to cross-sell forged products alongside its springs for integrated coach and wagon assemblies, strengthening customer relationships. A new 6-tonne forging hammer is under development and is commissioned from Q3 FY25 .

### Product Portfolio

The division manufactures a wide array of forged components, such as Bogie Bolster Suspension Hanger I & II, Brake Block Hangers, Hooks (I and II), Knuckle Throwers, Knuckle Pins, Top Followers, Wedges, Toggle components, and Shafts for Silent Blocks. In addition, it produces Screw Couplings for both coaches and locomotives, key linkages in rail safety.



Bogie Bolster Suspension Hanger I



Bogie Bolster Suspension Hanger II



Brake Block hanger



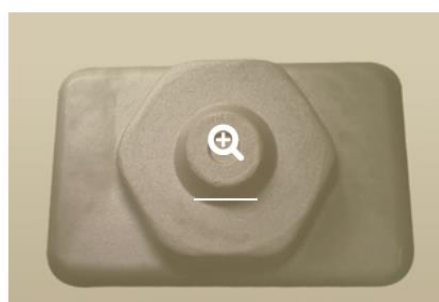
Hook I



Hook



Knuckle Thrower



Top Follower



Wedge



Knuckle Pin





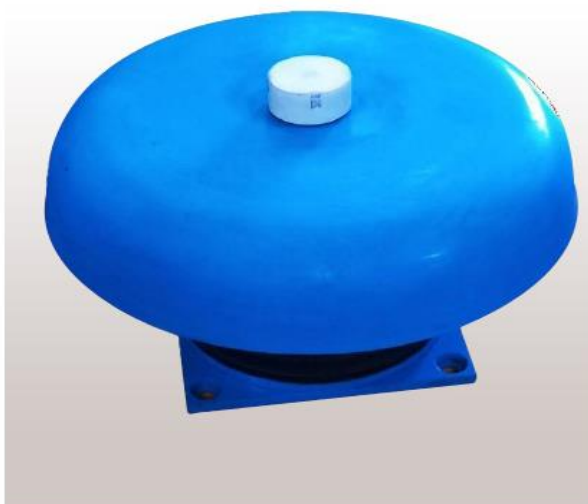
Screw Coupling for Coaches



Screw Coupling for Locomotives

### 3. Air Springs Division

- Premium Segment with Margin Upside in Air springs are an advanced suspension solution, primarily used in LHB coaches which are increasingly replacing ICF coaches across Indian Railways. These offer better ride quality, noise reduction, and safety, making them the future of railway suspension systems in India.
- Higher Realization & Margins: Air springs command significantly higher margins (22–23% EBITDA) compared to traditional coil springs due to lower competition and higher technical complexity.
- Longer Replacement Cycle: These components have a longer 8-year replacement cycle, but higher realization per unit balances volume-related concerns.
- Technological Edge: Frontier Springs is among the very few domestic players manufacturing these at scale. Although ContiTech was a technological partner earlier, FSL now independently supplies to them, establishing its competency.
- LHB Coach Ramp-up: With Indian Railways phasing out ICF coaches and focusing on LHB and Vande Bharat trains, air springs demand is set to surge, and FSL is strategically positioned to benefit.



Air Spring assembly 160 KN for LHB coaches having FIAT designed bogies



Air Spring assembly 180 KN for EMU/DMU ICF type coaches



## Order Execution & Demand Outlook:

While execution timelines vary across segments such as coil springs (for wagons, coaches, and locomotives) and air springs, Frontier Springs Ltd. typically fulfills most orders within an average window of 45 to 60 days. At the start of the financial year, the company had an order book of ₹150 crores, which it expects to fully execute within this timeframe. However, due to the nature of the Indian Railways procurement system where 4–5 tenders are floated daily for products like coil springs and forgings the order book is continuously replenished. Historically, the company maintained a running order book of ₹60–70 crores, but this has now doubled, reflecting strong demand and the company's growing presence in the railway component segment. Management Kapil Bhatia has emphasized that order flow remains steady, and there are no issues in sustaining or executing the robust pipeline

## Strategic Positioning in Air Springs Division :

Frontier Springs does not pay any royalty to ContiTech for its air spring business. Instead, ContiTech, which provided the design and technical know-how, earns through the supply of rubber components, which are integral to the manufacturing process. The rubber materials sourced from ContiTech contribute nearly 40% of the total input cost in air spring production. The two companies have entered into an MoU (Memorandum of Understanding) formalizing this collaboration, ensuring continued access to high-quality German engineering and material support. This structure not only adds credibility and a technological edge to Frontier's air spring division benefiting from ContiTech's global reputation but also places the company in a strategically advantageous position. By avoiding recurring royalty payments and maintaining direct component sourcing, Frontier Springs enjoys cost efficiency, improved margins, and greater financial flexibility as it scales the air spring business.

## Margin Profile:

Frontier Springs Limited has a differentiated margin profile across its three primary business segments. The coil springs division, which caters to locomotives, passenger coaches, and goods wagons, contributes margins in the range of 14–15%. The forging segment, serving a wider array of railway and industrial components, generates margins between 12–14%, slightly lower due to its more commodity-linked nature and competitive pricing pressures. However, the standout performer is the air springs segment, which commands a significantly higher EBITDA margin of 22–23%. This margin superiority is attributed to its technical complexity, limited competition, and strong partnership with German major ContiTech, which provides advanced rubber components and engineering support. Given the Indian Railways' strategic push toward LHB coaches and modern suspension systems, air springs are expected to witness robust volume growth over the next few years. With capacity expansion already underway and production stabilizing, this high-margin segment is poised to become the key growth and profitability driver for Frontier Springs, potentially lifting overall blended margins and strengthening the company's financial profile.

## Clients:





## **Replacement Cycle and Revenue Visibility:**

Frontier Springs benefits from strong aftermarket revenue visibility due to the predictable replacement cycles of its products. Coil springs typically require replacement every 5 years, while air springs have a longer replacement cycle of around 8 years. Given that coaches and wagons have an average life of 22–23 years, there is a recurring need for 3–4 replacement cycles throughout their operational lifespan. Moreover, springs are generally backed by a 5-year performance guarantee, post which they are eligible for open market replacements through competitive bidding. Importantly, springs are fungible across different manufacturers, meaning no exclusivity barriers restrict suppliers—allowing Frontier Springs to participate in a larger pool of tenders. With 3 open bidding opportunities during the lifecycle of a coach or wagon, and a proven track record of quality, the company is well-positioned to capitalize on recurring orders, ensuring a stable stream of revenues beyond the initial OEM supply. This replacement-driven demand, coupled with Frontier's strong brand recall and trust within Indian Railways, adds resilience and predictability to its business model.

## **Product Pricing :**

The air springs are priced at approximately ₹1.25 lakhs per unit and coil springs around ₹30,000 . Given that Frontier Springs commands a 50% market share in coil springs for locomotives and passenger coaches, it is uniquely positioned to capture a substantial portion of this demand surge. What makes the outlook even more compelling is the current price realization trend amid urgent demand from Indian Railways and elevated asset utilization, Frontier is securing even better than average pricing, particularly for coil springs, which are fetching prices above the ₹30,000 benchmark. This favorable pricing dynamic, coupled with strong volume visibility, is driving healthy margins and ensuring that the company's order book remains full for the upcoming fiscal year. As the LHB coach rollout scales up, and Frontier continues to deepen its penetration and execution capabilities, this policy pivot is expected to be a major catalyst for both revenue growth and margin expansion.

## **Strong Entry Barriers Driven by Long-Standing RDSO Accreditation and Specialized Manufacturing**

Frontier Springs Limited's three decade long partnership with Indian Railways, underpinned by its permanent registration with the Research Designs and Standards Organization (RDSO), creates a formidable entry barrier for new or smaller competitors. Consistently meeting the stringent technical specifications and quality standards set by RDSO India's apex regulatory body for railway design and safety demonstrates Frontier's engineering excellence, product reliability, and institutional trust. This accreditation not only enables the company to participate in high-value government tenders but also facilitates deeper integration into the supply chains of Indian Railways' manufacturing hubs like ICF (Integral Coach Factory), RCF (Rail Coach Factory), and MCF (Modern Coach Factory). Adding to this moat is the company's in-house manufacturing ecosystem, featuring precision controlled processes for heat treatment and tempering, which are critical for ensuring spring durability and performance under demanding rail conditions. With a dominant 50% market share in hot coiled springs used in passenger coaches, and ongoing adherence to both RDSO and international standards, Frontier Springs has built high technical and regulatory entry hurdles that make market penetration extremely difficult for unaccredited or less technically proficient players. This creates sustained competitive insulation, securing Frontier's leadership in a niche yet critical segment of the railway components industry.



## Industry Outlook

India's railway and metro infrastructure is undergoing a transformational shift backed by record budgetary allocations, policy reforms, and a growing push toward modern, high-speed, and safer transportation systems. The government's capital outlay of ₹2.65 lakh crore for Indian Railways in FY25 (the highest ever) reflects strong momentum in coach and wagon procurement, electrification, station modernization, and track upgradation. The railway ministry is targeting the addition of 90,000 new wagons and 40,000 LHB coaches over the next 4–5 years, creating a massive demand for precision components like coil springs, air springs, suspension hangers, forged linkages, and draft gear assemblies key product areas for Frontier Springs.

India is the fourth-largest railway network globally, trailing only the US, Russia, and China. The sector is undergoing a transformational shift, driven by record government investments, electrification, and modernization initiatives.

India's urban metro network is also expanding rapidly, with more than 1,200 km of metro lines under construction across Tier-1 and Tier-2 cities. Metro coach manufacturers are increasingly localizing sourcing to meet government mandates, opening avenues for suppliers like Frontier to tap into metro-specific spring and forging components. The typical lifecycle and replacement cycle for these components (5–8 years) also build a long-tail aftermarket demand, ensuring annuity-like revenue for component makers. The addressable market for suspension and forged components is set to expand significantly over the next decade, supported by structural tailwinds in railways, metro infrastructure, and defence. Companies with integrated manufacturing capabilities, proven quality track records, and the ability to scale such as Frontier Springs are poised to be long-term beneficiaries of this infrastructure super-cycle.

Indian Railway network is growing at a healthy rate. By 2030, the Indian railway market is expected to be the third largest in the world, accounting for 10% of the global market.

## Future Outlook

Management of the company Kapil Bhatia has laid out a clear and ambitious growth roadmap for Frontier Springs Ltd., targeting a gross revenue of ₹500 crore by FY 2026–27. For the current financial year (FY 2024–25), the company is aiming for ₹250 crore, followed by ₹350 crore in FY 2025–26, representing a robust compound annual growth rate (CAGR) of around 27%. This growth is expected to be driven primarily by the strong momentum in the high-margin air springs division, which is anticipated to stabilize by the end of the current fiscal year and contribute significantly thereafter. Additionally, the commissioning of the 6-tonne hammer is a major milestone, expected to enhance the company's forging capabilities and reduce reliance on outsourcing, thereby boosting productivity and margins.

Frontier Springs currently holds a dominant 50% market share in coil springs for locomotives and passenger coaches, underscoring its strong positioning in the railway ecosystem. In the goods wagon segment, it holds a 22% market share, which is comparatively lower due to the highly fragmented nature of wagon manufacturing, where many companies produce their own coil springs in-house. However, the company is actively working to expand its presence in this segment as well, aiming to capture greater market share through improved capacity, quality, and client servicing. Alongside capacity expansions in coil and forging lines and deeper backward integration, Frontier Springs is poised to capitalize on Indian Railways' strong capex push and the increasing adoption of LHB and metro coaches. This long-term revenue guidance not only reflects management's confidence in execution but also indicates potential for a meaningful re-rating of the company, provided these plans materialize as projected.





The 6-tonne hammer is expected to start contributing from the third quarter of FY25, with an estimated revenue addition of ₹10 to ₹15 crores in the current year. From FY26 onwards, the contribution is projected to rise significantly, with the hammer expected to generate around ₹50 to ₹60 crores annually. This capacity expansion is a key driver in their plan to scale revenues toward the ₹500 crore target by FY27.

## **Risks**

### **1. Customer Concentration Risk**

A significant portion of revenue is derived from Indian Railways and its ecosystem. Any reduction in orders, delays in tenders, or shift in procurement policy can materially impact revenues.

### **2. Raw Material Price Volatility**

The company's margins are sensitive to fluctuations in steel and alloy prices, which form a large part of input costs. Although it may pass on some costs, lag effect or contractual limitations may affect profitability.

### **3. Execution and Capacity Risk**

The company is undertaking major capex initiatives (e.g., new forging hammer, expansion of spring capacities). Any execution delays, cost overruns, or failure to ramp up efficiently could impact ROI and balance sheet strength.

### **4. Technology and Innovation Risk**

As the rail ecosystem evolves with high-speed and smart coaches, delay in technological upgradation or product development could lead to loss of relevance in certain product lines.

### **5. Competition and Tender-Based Pricing**

Operating in a regulated and tender-driven environment exposes the company to aggressive pricing competition. This can limit pricing power and pressure margins, especially in the replacement market.

### **6. Regulatory and Policy Risk**

Being heavily dependent on government infrastructure spend and policies, any change in railway budget allocations, delays in defence indents, or policy reversals can pose strategic.

### **7. Working Capital Intensive Nature**

The business model, especially with government entities, often results in high receivables and inventory cycles. This can impact cash flows, especially during order lulls or economic slowdowns.

**Financials****Profit & Loss Statement (In ₹ Cr)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Sales	38	37	35	39	47	59	83	100	77	84	107	135
Expenses	33	32	32	35	41	50	70	79	64	71	94	114
Operating Profit	5	4	3	4	6	8	13	20	13	12	13	21
OPM %	13%	12%	8%	10%	12%	14%	16%	20%	17%	15%	12%	16%
Other Income	0	0	0	0	0	0	1	1	1	1	1	1
Interest	1	1	1	2	2	1	1	1	0	0	1	1
Depreciation	1	1	1	1	2	2	2	2	3	3	3	4
Profit before tax	3	2	1	1	2	5	10	18	11	10	10	17
Tax %	26%	25%	29%	49%	8%	35%	18%	20%	26%	25%	26%	26%
Net Profit	2	2	0	1	2	4	8	14	8	8	7	13
EPS in Rs	5.08	4.29	1.04	1.29	5.43	9.04	21.33	35.60	19.80	19.07	18.38	32.98

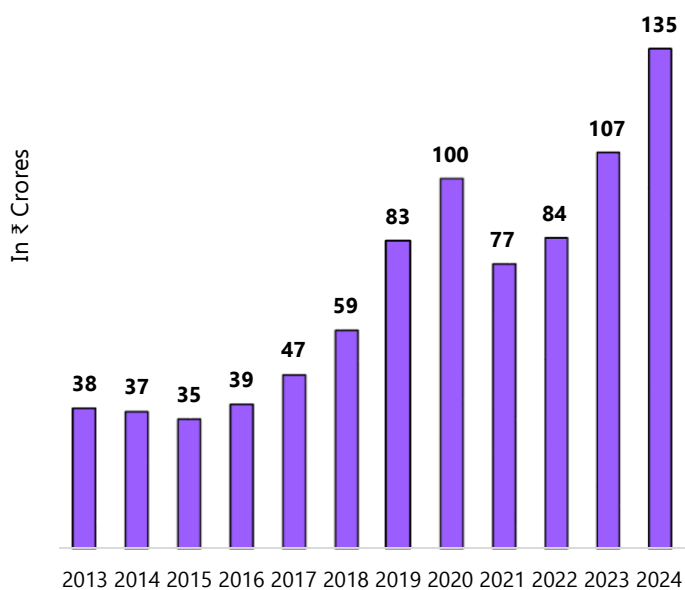
**Balance Sheet (In ₹ Cr)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Equity Capital	4	4	4	4	4	4	4	4	4	4	4	4
Reserves	17	19	20	20	22	26	34	47	56	63	71	85
Borrowings	6	11	10	13	14	12	9	9	4	3	5	4
Other Liabilities	9	11	12	16	15	17	21	18	20	22	31	30
Total Liabilities	37	44	46	52	55	59	68	78	83	92	110	123
Fixed Assets	16	16	16	23	27	29	30	33	34	37	42	45
CWIP	0	4	6	1	1	0	0	1	0	1	1	2
Investments	0	0	0	0	0	2	3	5	8	13	15	18
Other Assets	20	24	24	29	28	29	35	39	41	42	52	59
Total Assets	37	44	46	52	55	59	68	78	83	92	110	123

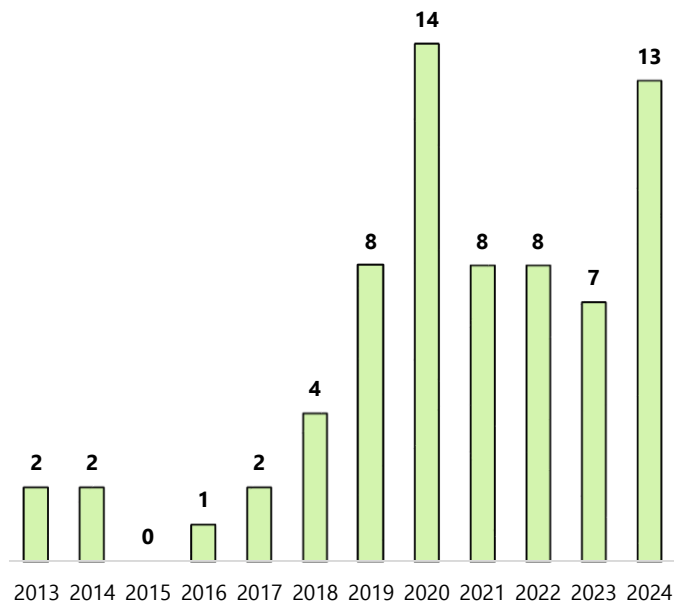


## Financials

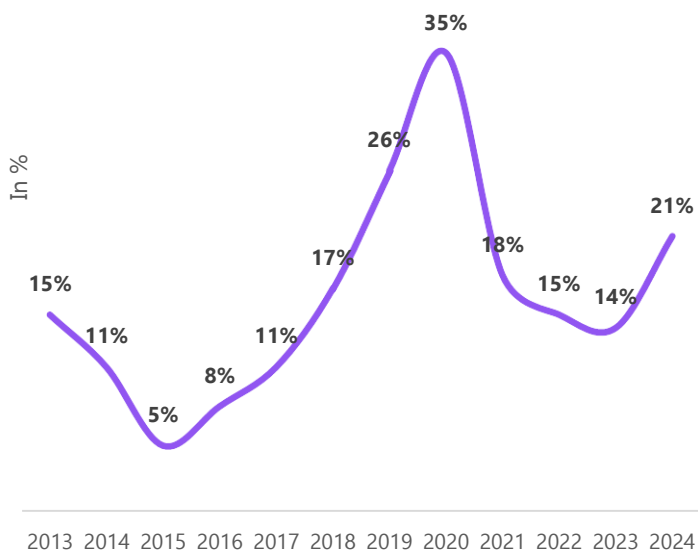
### Revenues



### Net Income



### ROCE



### CFO





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| 23<sup>th</sup> April 2025

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