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Rolling on a rough road

Tyre makers hit a rocky patch amid rising prices, tapered supply of natural rubber

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Research

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Inflated natural rubber pinches

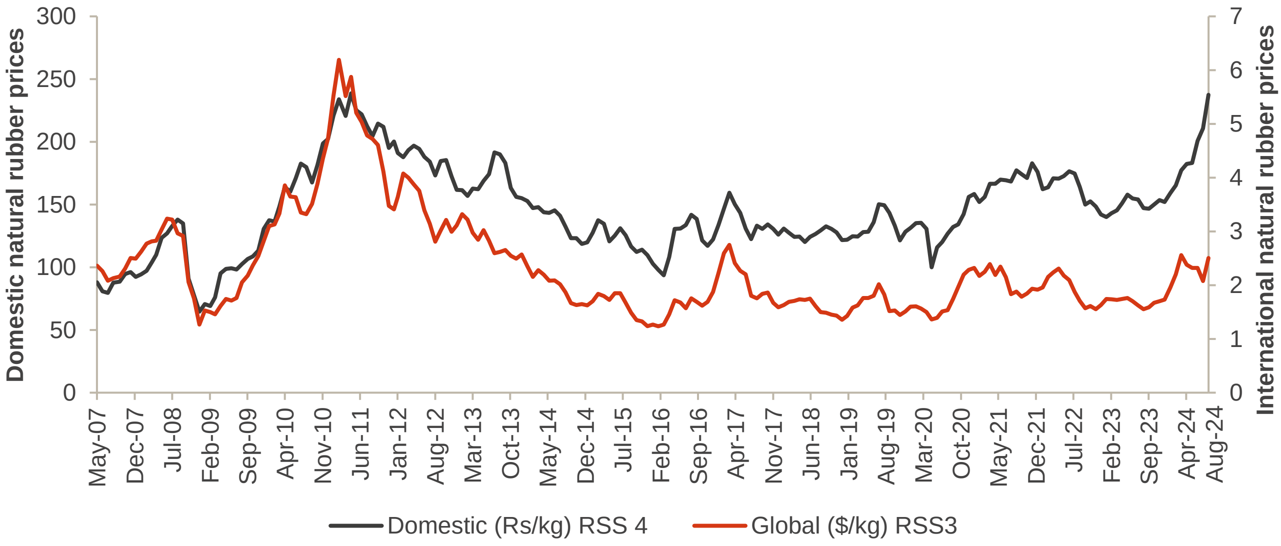
Stretched supply and spiralling prices of natural rubber have pushed tyre makers to a tricky turf. The industry has seen costs soar, mounting pressure on profitability, as prices of the commodity surged over 33% on year in just the first five months of fiscal 2025.

The scale of impact on tyre makers can be gauged from the fact that natural rubber accounts for as much as 20-40% of the weight of tyres, depending on the category. Indeed, the tyre industry accounts for around 80% of natural rubber consumption in the country.

Natural rubber prices had hit all-time highs in 2011, breaching the ₹200/kg mark, after recovering from the global financial crisis, aided by accommodative stance of the Fed and other central banks, and logged a compound annual growth rate (CAGR) of 101% between 2008 and 2011. But, three years of surge in natural rubber prices from the slump of 2008 soon turned into a decade of subdued prices where the average price remained below ₹150/kg.

Since the end of 2023, however, skyrocketing prices — prices have again breached the Rs 200/kg mark amid a raft of challenges — and tight supplies of natural rubber have cast a long shadow on the industry even as steady expansion of the automobile industry and other major consuming industries keeps demand healthy.

The rise, fall and rise in natural rubber prices



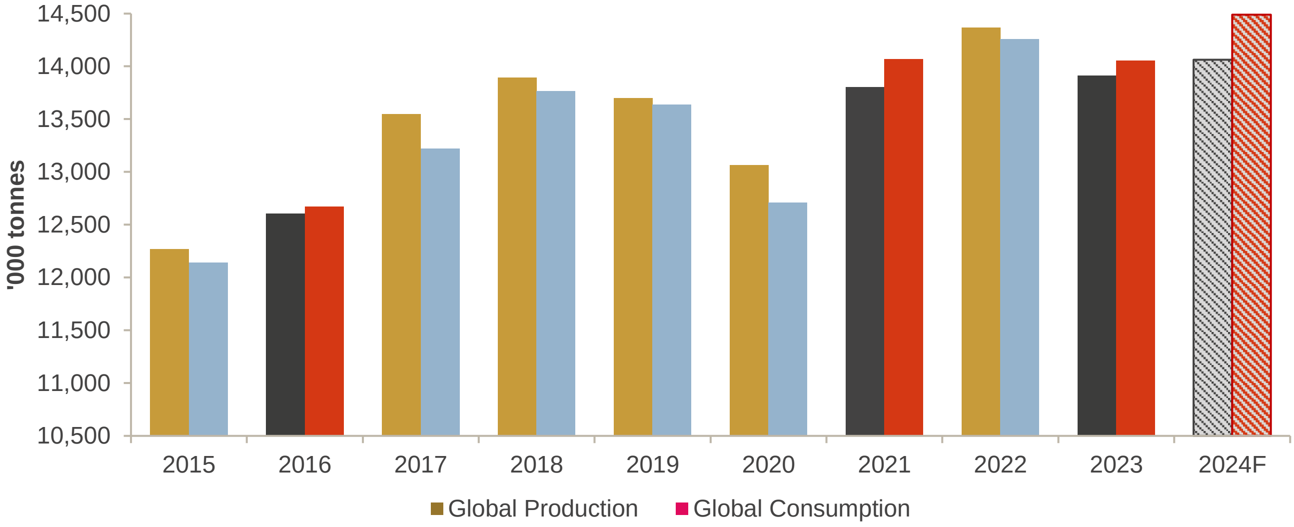
Source: Rubber Board, Ministry of Commerce and Industry, CRISIL MI&A Research

A deep dive reveals that the current spike in natural rubber prices is different from previous ones. While the earlier spikes were either due to one-time phenomena such as farmers abstaining from harvesting rubber owing to low profitability in 2016 or the labour crisis triggered by systemic shocks such as the Covid-19 pandemic in 2020, the increase in prices towards the end of 2023, was caused by something much more fundamental, which is demand surpassing capacity.

In 2011, the natural rubber market had sufficient supply to cater to global demand. Between fiscals 2011 and 2023, however, global natural rubber production grew 35%, while demand for natural rubber expanded 40%. The resultant supply crunch sent prices soaring once again.

An analysis of the supply and demand dynamics over the years throws up valuable insights on the natural rubber market's imbalance.

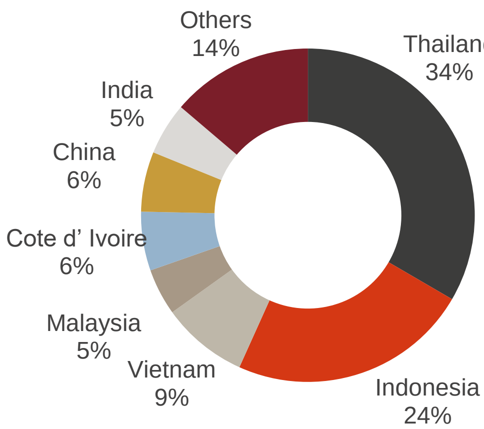
The structural shift in demand-supply dynamics



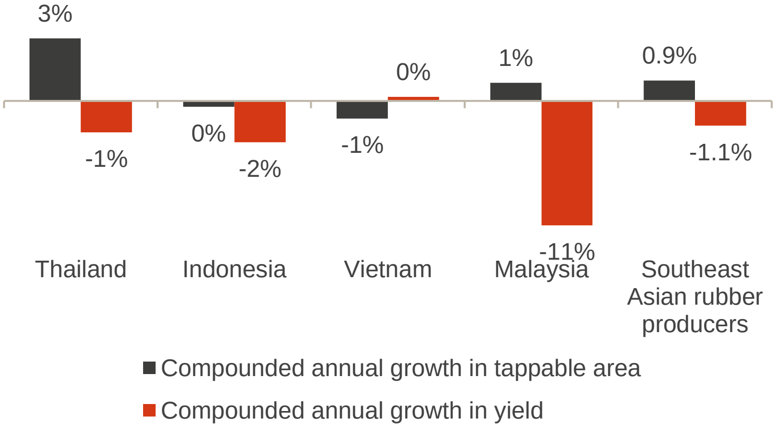
Source: Rubber Board, CRISIL MI&A Research

Historically, supply of natural rubber has been dominated by the Southeast Asian nations of Thailand, Indonesia, Vietnam and Malaysia, which accounted for around 80% of global rubber production in 2011. The spurt in prices post the 2008 crisis, up till 2011, along with prospects of better profitability, had lured several farmers in these countries to cultivate natural rubber, leading to the expansion of rubber cultivation. This, along with yield-enhancing techniques, led to supply outstripping demand. The result was an oversupplied market during 2011 to 2015, which caused international prices to decline at a compound annual growth rate (CAGR) of 24% (while domestic prices experienced a negative CAGR of 13%).

Natural rubber production



Tappable area vs yield (2015-2022)

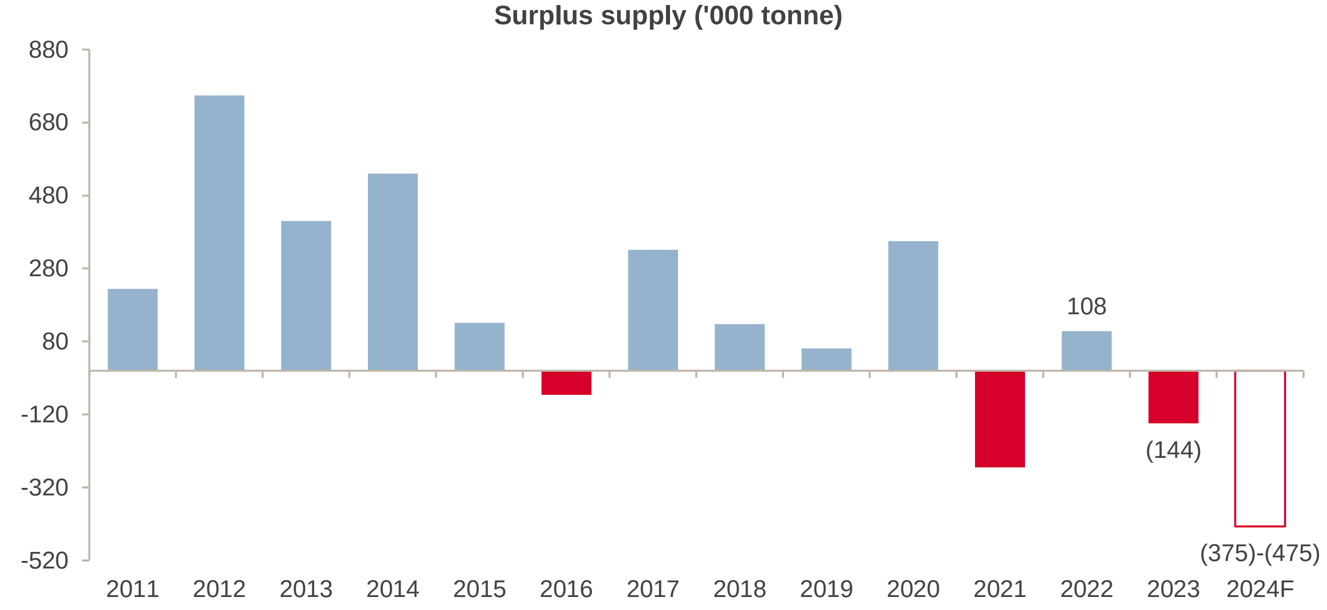


Note: Southeast Asian rubber producer represents area and yield of Thailand, Indonesia, Vietnam and Malaysia combined

Source: CRISIL MI&A research

Consecutive years of low prices along with the high requirement of skilled labour prompted farmers to move partly or entirely away from rubber cultivation to more lucrative crops such as palm oil, which not only provided greater yield at a lower cost of production but also allowed expansion of agricultural activities without the need to hire significant additional labour. The lack of enthusiasm among farmers in top rubber producing countries to sustain rubber cultivation led to an increase in the share of older trees in plantations, causing the overall yield to decline from 1,090 kg/ hectare in 2015 to 1,010 kg/hectare in 2022. The overall tappable area in these countries remained near stagnant between 2015 and 2022. Consequently, production from southeast Asia logged a negative CAGR of 0.2%.

Though supply from newer destinations has increased in recent years, the pace of production decline among top nations has been faster. In fact, between 2018 and 2022, production from Ivory Coast, the only major alternative source that exports natural rubber, has increased by 945,000 tonne, while production from major rubber producing nations in southeast Asia declined by 1,406,000 tonne. Unseasonal floods in Thailand and neighbouring countries in 2023 resulted in a deficit of 144,000 tonne and aggravated the supply crunch, causing prices to spike again.



Source: Rubber Board, Industry, CRISIL MI&A Research

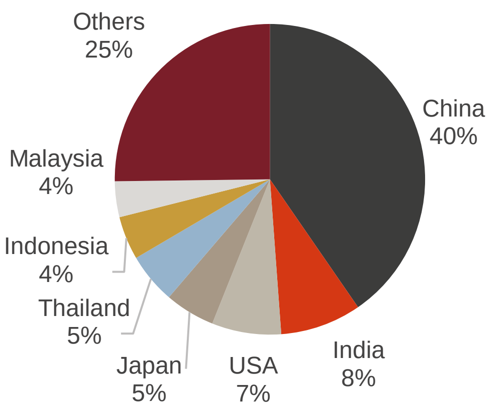
But supply is only part of the dynamics. The other part is consumption.

Before the onset of the pandemic, between 2015 and 2019, global rubber consumption clocked a CAGR of 3%, aided by the growth of automotive and allied industries and healthy infrastructure investments in developing countries. Majority of this growth was fuelled by emerging Asian economies such as China, India, Thailand, Indonesia and Malaysia, which accounted for more than 60% of natural rubber demand. Consumption from mature markets such as the US, Japan and Europe also remained steady.

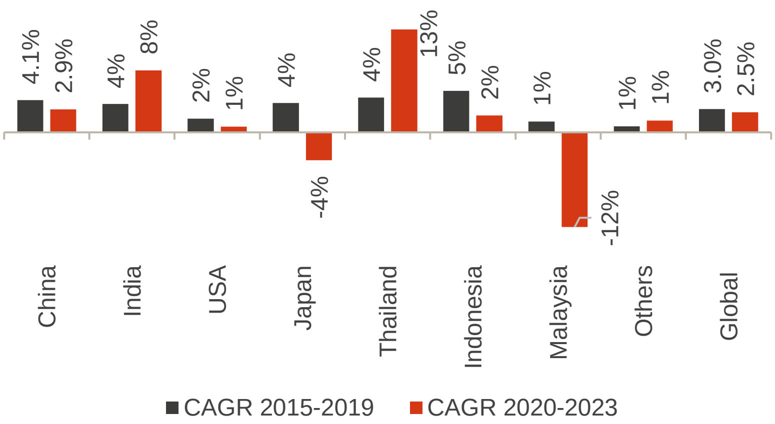
Between 2020 and 2023, however, the pandemic dealt a heavy blow to demand growth, causing global consumption to grow 50 bps slower than the pre-pandemic level. China, which experienced moderation in economic growth triggered by stringent lockdown measures and challenges in the real estate sector, is the largest contributor to the contraction in demand with consumption CAGR declining to 2.9% during 2020-2023 from 4.1% over 2015-2019.

Other top natural rubber consuming countries, excepting India and Thailand, clocked lower growth post-pandemic with Japan and Malaysia recording a decline in CAGR during 2020-2023. The twin impact of the pandemic and the subsequent increase in interest rates by central banks to curb rising inflation dampened economic growth and rubber consumption, extending weak support to prices.

Natural rubber consumption share



Comparison of consumption growth pre and post Covid-19



Source: Rubber Board, Industry, CRISIL MI&A Research

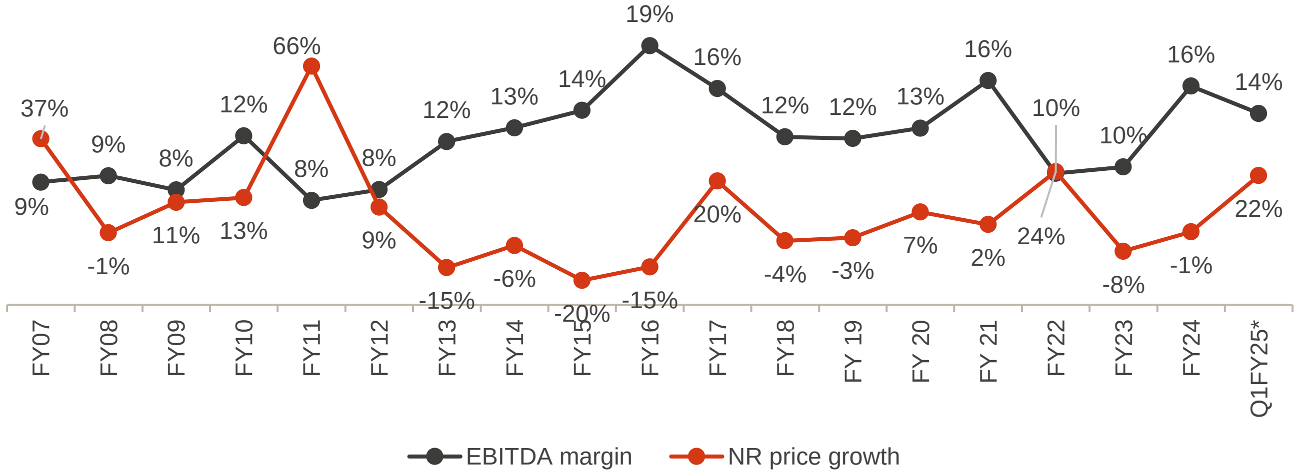
The demand story has since taken a sharp turn. Recovery in consumption from China owing to economic stimulus from the government, along with anticipated rate cuts by central banks across the world, are expected to boost natural rubber demand, with automobiles and tyres being the key drivers in this cycle.

But this growth is not expected to be met by an equal expansion in stock in the medium term, leading to widening deficit, as supply struggles to catch up to demand. With only 1-2% growth in production against a 3-4% increase in demand, the possibility of deficit tripling in 2024 remains significant as rubber trees take 6-8 years to mature before latex production begins.

This prevents any immediate increase in production at plantations. The supply crunch has further deepened this year owing to the destruction caused by super typhoon Yagi in China's Hainan, traditionally a rubber-growing province, as well as the other rubber-producing nations of southeast Asia such as Vietnam.

Additionally, the European Union Deforestation Regulation (June 2023), with strict traceability and sustainability requirements, has resulted in substantial compliance costs for producers, making it more difficult for small-scale farmers in major rubber-producing nations to expand cultivation. Environmental factors such as unseasonal floods and fungal leaf diseases (such as Pestalotiopsis and Fusicoccum leaf blight) will exacerbate the situation, reducing yields and contributing to a significant supply deficit — thus keeping price buoyant.

Tyre OEM Ebitda vs natural rubber prices



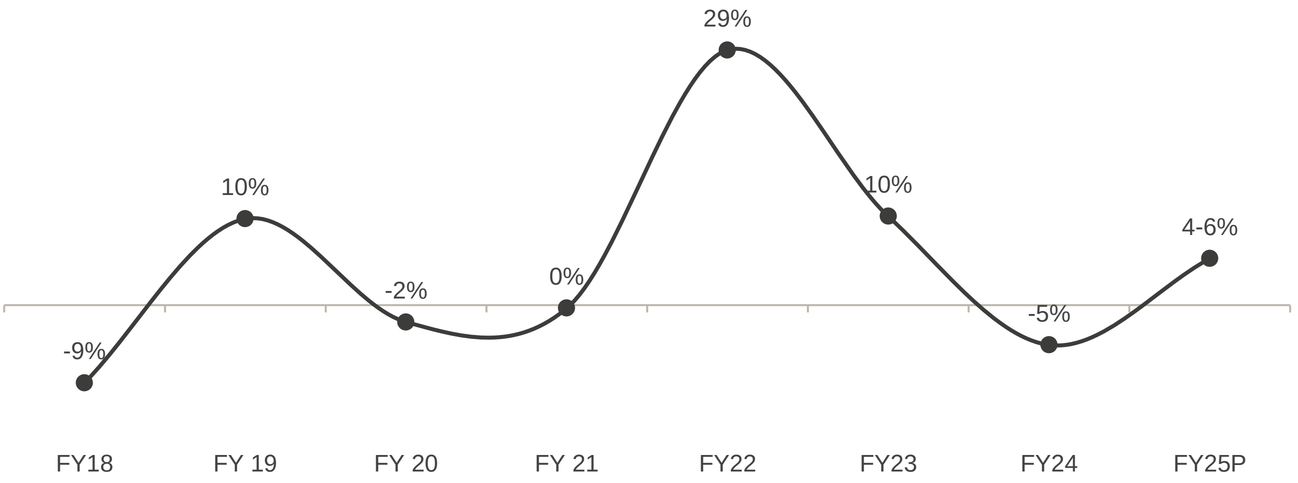
*Note: *- on year growth in quarterly prices*
Source: Industry, CRISIL MI&A Research

Pressure on the margins of tyre makers

The margins of tyre manufacturers have a negative correlation with the prices of natural rubber. Natural rubber prices shot up 22% on year in the first quarter of fiscal 2025, while the operating margin of the top five listed tyre manufacturers in India declined ~200 bps to 14% from 16% in fiscal 2024. With further rise in demand and restricted supply, the prices of natural rubber are expected to remain high, impacting the margin of tyre manufacturers well beyond fiscal 2025.

Despite an anticipated moderation in prices of crude oil prices and the consequent decline in prices of crude-based raw materials such as SBR, PBR, NTCF and carbon black, the increase in prices of natural rubber is expected to lift the raw material index. CRISIL's monthly Basic tyre Raw Material Index, which covers natural rubber, styrene butadiene rubber, poly butadiene rubber, carbon black and nylon tyre cord fabric, is expected to increase 4-6% in fiscal 2025 after a 5% decline a year earlier.

CRISIL's Basic Tyre Raw Material Index



Source: CRISIL MI&A Research

Given the ever-increasing demand for rubber and production by top suppliers reaching the brim, tyre original equipment manufacturers must brace up for elevated rubber prices and explore ways to mitigate the impact of a prolonged supply shortage.

Developing alternative supplies or reducing costs by exploring imports from cheaper destinations could be a crucial first step. The industry can ensure the proverbial wheel turns in its favour.

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