

Rubber, Natural

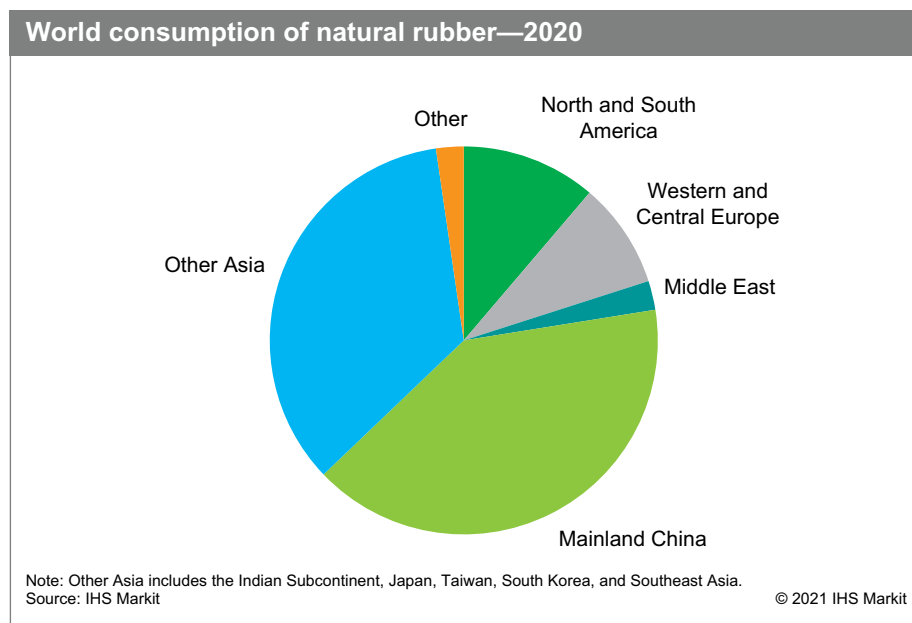
May 2021

Abstract

The shift toward radial tires, which use a higher percentage of natural rubber than bias-ply tires, has resulted in an increase in natural rubber consumption over the past 35 years. Between 1975 and 2008, natural rubber's share of the total rubber market has increased. There have also been diverse government incentives to help develop the downstream rubber processing industry in Southeast Asia. As a result, natural rubber consumption has trended upward in these countries but most of the production is still exported. The upward trend is a result of a rise in rubber consumption in the natural rubber-producing countries and the significantly increasing demand for natural rubber in mainland China and India.

Overall, tire production and tire weight greatly influence natural rubber demand. Tires and tire products accounted for 77% of the total consumption of natural rubber in 2020. General rubber product uses include automotive and mechanical parts, medical and health-related products, and nonautomotive mechanical parts, which collectively account for the remaining 23% of natural rubber consumption. These shares are not expected to change in 2020–25.

The following chart shows world consumption of natural rubber:



Natural rubber prices increased sharply to new all-time highs in 2011 because of supply fears from the major producing regions in Asia. From 2012, natural rubber prices fell significantly owing to a surplus of natural rubber and a weakness in tire demand. The market situation was in a transition in 2014 and 2015 as natural rubber oversupply pushed prices further down. For much of 2014, natural rubber was able to capture low-end volume from synthetic rubber, especially in Asia.

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However, synthetic rubber prices also fell because of the significant drop in crude oil prices in late 2014. As a result, synthetic rubber regained some of its lost market share.

Most natural rubber production comes from small farmers who are not able to reduce production when prices fall to try to tighten supply and push prices higher. As a result, falling price trends draw strength from rising inventories, making the situation that much worse for producers.

Natural rubber is a naturally occurring elastomeric polymer of isoprene (2-methyl-1,3-butadiene) with excellent resistance to abrasion, impact, tears, and heat buildup caused by hysteresis. It is also characterized by very good tensile strength, green strength, resilience, flexibility, aging stability, and building tack. However, natural rubber is not very resistant to oxidation, ozone, weathering, and a wide range of chemicals and solvents. Thousands of species of trees, plants, shrubs, and vines produce natural rubber latex in the world.

Although natural rubber can be isolated from nearly 2,000 species of trees, plants, shrubs, or vines of the tropical and temperate regions, one source—the *Hevea brasiliensis* tree—provides almost all (99.5%) of the world's natural rubber. Hevea rubber is produced in tropical areas of the world including the equatorial areas of Southeast Asia, Africa, and Central and South America, but not in the United States, Japan, or Europe because of unsuitable climatic/weather conditions. A small commercial source of natural rubber, the guayule shrub, *Parthenium argentatum*, has been of interest because guayule rubber can be produced in hot, arid areas, such as the southwestern region of the United States.

Because of natural rubber's large consumption volume, the limited area of commercial production, and its importance to the world today, the management of its supply is of dire importance. This includes two major areas—stabilizing the current supply and developing diversified sources of natural rubber.

World consumption of natural rubber is forecast to grow at an average annual rate of about 3%. Although demand growth is expected to be slower than previous forecasts as a protracted recovery from the devastating effects of the COVID-19 pandemic will continue to pressure the automotive sector over the next few years.

For more detailed information, see the table of contents, shown below.

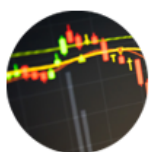
IHS Markit's Chemical Economics Handbook – Rubber, Natural is the comprehensive and trusted guide for anyone seeking information on this industry. This latest report details global and regional information, including



Global summary;
regional coverage



Producers with
annual capacities
and plant sites



Production figures
and trends



Consumption and
forecasts by end use
application



Manufacturing
processes and
environmental issues



Trade – imports
and exports

Key benefits

IHS Markit's Chemical Economics Handbook – Rubber, Natural has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with IHS Markit's unparalleled access to upstream and downstream market intelligence and expert insights into industry dynamics, trade, and economics.

This report can help you

- Identify trends and driving forces influencing chemical markets

- Forecast and plan for future demand
- Understand the impact of competing materials
- Identify and evaluate potential customers and competitors
- Evaluate producers
- Track changing prices and trade movements
- Analyze the impact of feedstocks, regulations, and other factors on chemical profitability

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