

Acute	Chronic	Legal and policy	Market	Technology	Reputational
Physical risk		Transition risk			

JBS Links to Amazon Deforestation Imperil US IPO as Banks and Customers Cut Ties

JBS, the world’s largest processor of animal protein, has incurred millions of dollars in penalties for purchasing cattle from illegally deforested land in the Amazon. The company is attempting to strengthen its sourcing process, in the face of growing pressure from its corporate customers, investors and regulators to expunge illegal land clearance from its supply chain. While zero-deforestation commitments and traceability initiatives may appear to address these concerns, a Bloomberg News investigation found JBS is only taking superficial action. NGOs, unsatisfied with JBS’ progress, are attempting to block its long-planned listing in the US.

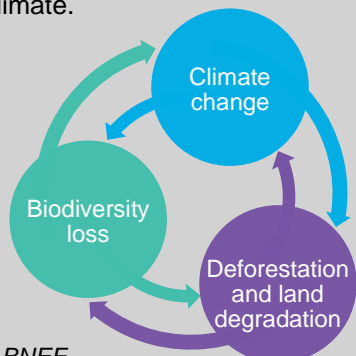
100% Share of gross value added in the direct operations of agriculture that is highly dependent on nature

\$7.7 million Fine from the environment agency in 2017 for buying cattle from illegally deforested land

\$20 billion Potential gain in market capitalization if JBS is able to list on the New York Stock Exchange

Climate change and nature loss

The natural systems, land use and climate change are interlinked. Increasing temperatures and deforestation hasten the decline in nature, which impairs the ability of natural systems to regulate the global climate.



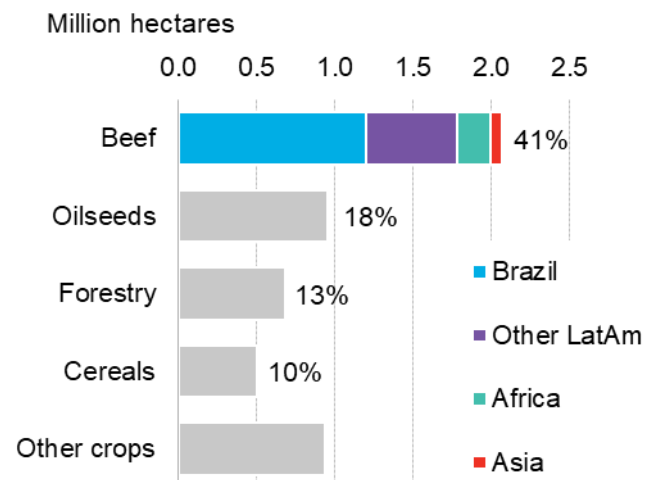
Source: BNEF

Manifestation of nature risk

The Brazilian beef supply chain is among the most complex in the world, beginning with 2.5 million ranchers and ending with corporate buyers across 80 countries. In the middle sits JBS (BVMF: JBSS3), the world’s largest meat producer. It operates slaughterhouses in dozens of locations throughout Brazil. Estimates suggest that cattle ranching is responsible for between 70% and 90% of deforestation in the Amazon. An investigation by the Bureau of Investigative Journalism concluded that about 800 million trees were destroyed across 17,000 square kilometers of forests near meat processing plants in the region between 2017 and 2022.

The beef industry is the largest driver of deforestation globally, responsible for over 40% of tropical rainforest loss. Operations in Brazil account for more than half of the industry’s total deforestation impact.

Drivers of tropical deforestation



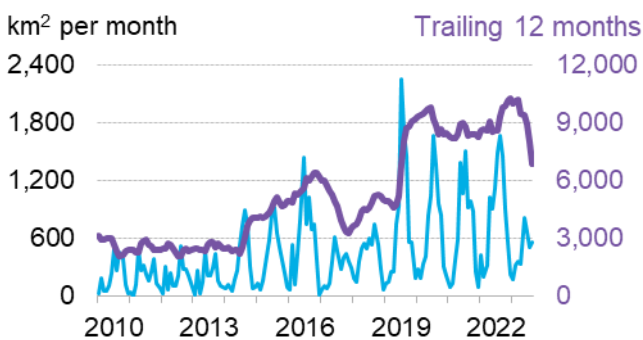
Source: BloombergNEF, Our World in Data, Pendrill et al. (2019). Note: Data covers 2005-2013. Recent observations suggest that drivers have not changed significantly since 2013. Gray bars represent commodities other than beef.

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A 2022 Bloomberg News [investigation](#), referenced throughout this case study, found that JBS slaughters a third of all cattle in the Brazilian Amazon, sourcing from ranchers throughout the region.

JBS was purchasing cattle from suppliers entrenched deep in the Amazon, where forests have been [razed](#) to accommodate growing herds. After attention was first drawn to the beef industry’s role in driving nature loss in the Amazon by a 2009 [report](#), major Brazilian supermarket chains [pledged](#) to suspend contracts with suppliers tied to Amazon deforestation, and a Brazilian federal prosecutor [filed](#) a billion-dollar lawsuit against the cattle industry for environmental damage. JBS responded by agreeing, in a settlement with the federal government, to a [moratorium](#) on buying livestock from land cleared after October 2009.

Amazon deforestation between January 2010 and August 2023, monthly and trailing 12 months



Source: BloombergNEF, Brazil National Institute for Space Research (INPE). Note: Data from INPE’s DETER system.

To assess how this commitment translated to on-the-ground action, Bloomberg [analyzed](#) the coordinates of 1 million now-restricted cattle shipments between 2009 and 2021, finding that though JBS had indeed ramped up its monitoring, it also aggressively expanded its Amazon footprint over the period. Its base of direct suppliers in the region, from whom JBS sources cattle first-hand, more than doubled to 16,900 from 7,700, while it purchased from a total of over 60,000 Amazon ranchers cumulatively, including indirect suppliers.

JBS stresses that for the last decade it has [complied](#) with the 2009 settlement, purchasing only from

ranches not tied to illegal land clearance and checks thousands of suppliers daily. “One hundred percent of our suppliers in the biome abide by those criteria, which is to say, zero deforestation,” said the company’s global president of operations in Latin America and Oceania in a 2020 press conference.

The company is forthright in its assertions of a deforestation-free supply chain. However, a major caveat exists – JBS [only verifies](#) the provenance of cattle from direct suppliers to ensure their legality. Despite cattle in Brazil [moving](#) on average between two and three – and sometimes up to six – ranches before slaughter JBS [registers](#) only the location immediately before purchase. The Bloomberg News investigation said this enables the early stages of a cow’s lifecycle to take place in deforested areas, before the animal is sold to land-intensive pasture and then fattening stages. It is the latter ranches that are certified as deforestation-free – and on which JBS’ provenance claims rest.

Financial and reputational impacts on JBS

Allegations of deforestation have followed JBS since 2009, resulting in legal penalties, termination of supply contracts with downstream customers and divestment by financiers.

In 2017, JBS was [fined](#) 24.7 million Brazilian reais (\$7.7 million) by Ibama, the Brazilian Institute of Environment and Renewable Natural Resources, for purchasing 49,000 cattle from illegally deforested areas in the Amazon state of Pará between 2013 and 2016. JBS pointed to independent audits by DNV.GL, which showed no irregularities relating to deforestation in over 7,000 of its transactions in 2018. The following year, DNV.GL added a note stating that its comments only applied to JBS’ direct dealings and that verifications were not in place for its indirect supply chain.

For a company with over \$72 billion in revenue in 2022, a seven-figure fine does not present an existential threat. Of more significance is access to capital. In July 2023, JBS moved ahead with a long-

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delayed plan to list its shares on the New York Stock Exchange, [filing](#) a registration request with the US Securities and Exchange Commission (SEC). JBS “sees the move as key to accessing a broader pool of institutional investors [...] potentially slashing its capital costs and boosting stock valuation relative to US competitors such as Tyson Foods,” according to [Bloomberg News](#). As of November 2023, the company had a market capitalization of \$9.5 billion, which it expects to increase to almost \$30 billion, if the listing closes the valuation gap with its main rival Tyson Foods Inc., according to an [internal presentation](#) in July.

Previous attempts to list in the US fell apart following allegations of corruption that resulted in JBS incurring a [\\$3.2 billion fine](#). This time, deforestation and climate change have prompted various environmental organizations to contact the SEC, [urging](#) it to block the listing or investigate claims in the company’s IPO prospectus, such as increased transparency. In response, the SEC [said](#) that the concerns “will be given careful consideration in view of the Commission’s overall enforcement responsibilities under the US federal securities laws”. An excoriating [Bloomberg Opinion piece](#) in September 2023 argued that permitting the listing to go ahead would be “an ESG nightmare”.

The SEC has form in investigating environmental issues, particularly greenwashing, which is how NGOs and standard setters such as CDP have [described](#) JBS’s proposed “zero illegal deforestation” approach. It recently set up a Climate and ESG task force and investigated mining company [Vale](#) and electric truck maker [Nikola](#) over making misleading environmental and governance claims to investors. A [run of subpoenas](#) sent to asset managers relating to ESG marketing likewise suggests a possible future crackdown on greenwashing. Vale and Nikola paid [\\$55.9 million](#) and [\\$125 million](#) in settlements respectively, but Vale did not admit or deny the claims.

European supermarkets have also reacted to the allegations of illegal deforestation against JBS. [Six](#)

[chains](#), including Sainsbury, Aldi and Carrefour, said in December 2021 that they would commit to either stop selling specific JBS products or sourcing Brazilian beef entirely. Despite accounting for only \$5.6 billion, or 7.5%, of the company’s revenue in 2022, the shifts in retailer sourcing policy highlight future market risk for JBS. The [EU’s Regulation on Deforestation-free Products](#), which applies to all companies that trade within the bloc, places further pressure on European food retailers and service providers to examine their supply chains or face penalties up to 4% of revenue.

Response from the financial sector and risks of engagement with JBS

Financial institutions are beginning to reconsider their positions, cognizant of the growing legal, market and transition risk that accompanies debt and equity finance of activities tied to deforestation. In 2018, Norway’s Government Pension Fund Global (GPF) – the world’s largest pension fund – [sold](#) its 1.78% equity stake in JBS, while Nordea Asset Management, the investment arm of northern Europe’s largest financial services group, [divested](#) from the company in 2020, selling €40 million (\$46 million) in shares. Each cited “unacceptable risk” stemming from continued association with the company. In March 2023, the NL Times [reported](#) that several of the largest Dutch pension funds are expecting to soon step away from investments in JBS over environmental concerns.

According to Bloomberg Terminal data, banks have provided or underwritten over \$60 billion of finance to JBS and its subsidiaries since 2013 in the form of bonds and loans; Barclays alone extended \$10 billion. After numerous [media](#) and [NGO](#) reports highlighted its involvement with JBS, Barclays rewrote [its forestry and agricultural commodities statement](#) to exclude engagement with companies whose operations or supply chains involve illegal deforestation. As of March 2023, no JBS share or bondholding data can be found for Barclays, suggesting that it has ceased financing the company. Similarly, analysts at HSBC have [warned](#) of the potential risks of investing in JBS due to deforestation concerns.

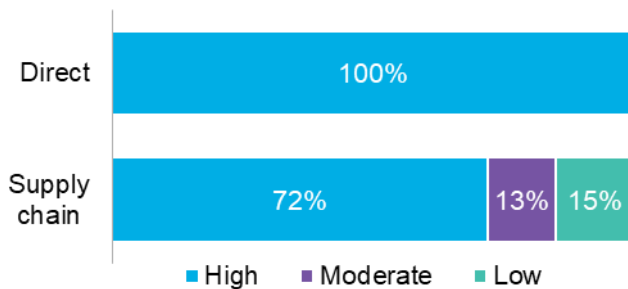
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Increasing awareness of transition and systemic risk stemming from deforestation not only impacts JBS, but also its financiers, who open themselves to new avenues of legal risk. In November 2023, Paris-based NGO Sherpa filed a [criminal complaint](#) against French financial institutions, including BNP Paribas, Credit Agricole and Axa, to the French financial prosecutor’s office alleging the banks abet illegal deforestation through their provision of finance to JBS. Bank representatives either did not respond immediately for comment or said that their firms’ policies on climate abide by international laws and standards.

Nature risk across protein companies

The agriculture sector is one of the most highly dependent on nature, according to the World Economic Forum, with 100% of direct economic value generation and 85% of supply chain value generation being moderately or highly dependent.

Nature dependency of gross value added across agriculture companies’ direct operations and supply chain



Source: World Economic Forum, BloombergNEF. Note: JBS is categorized as an agricultural company due to its live animal supply chain contributing to deforestation.

The ENCORE nature tool identifies 19 ecosystem services that large-scale livestock production processes are dependent upon. Of these, three direct physical inputs are deemed to be of very high materiality, including ground and surface water, and plant material for fodder. Livestock production also has major nature-related impacts, with impact drivers of nature loss across water and terrestrial ecosystem use, greenhouse gas emissions, and water and soil

pollutants each deemed impactful, according to the materiality matrix.

JBS is far from an outlier among meat processing companies. Among peers of JBS operating in the Amazon, a cursory search yields legal and reputational risks for Cargill, Minerva and Marfrig, with selected cases summarized below.

Similar risks faced by soft commodities companies operating in the Amazon

Company	Risk type	Description
Cargill	Legal and reputational	Fined \$29 million for growing soya on deforested land in the Amazon, alongside four other grain firms.
Minerva	Legal	Ibama filed a public civic action against the meat producer in September 2023, alleging illegal clearance of almost 200,000 hectares of rainforest in Brazil.
Marfrig Global Foods	Legal and reputational	Brazilian authorities found links between the meat producer’s indirect suppliers and embargoed land, drawing a 1.19 million reais (\$290,000) fine and criticism from fast food chains.

Source: BloombergNEF

Managing nature risks in the protein sector

Companies producing beef on land tied to tropical rainforest destruction face some of the largest nature-related risks. Increased scrutiny from regulators, consumers and finance providers is resulting in pressure to tighten supply chains and trace agricultural goods from their origin to retail outlet. Technology including blockchain-based sourcing and satellite monitoring can help with managing impacts and dependencies. In the short-term, disclosure on *indirect* supply chains remains the most meaningful step.

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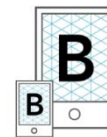
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