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ANALYSIS OF THE RECENT EVOLUTION OF THE GLOBAL COFFEE MARKET: DETERMINANTS OF PRICE INCREASES AND PERSPECTIVES ON SECTOR SUSTAINABILITY (2023–2025) – REVIEW

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Abstract: The present review examines the recent evolution of the global coffee market during the 2023–2025 period, with a particular focus on the factors that have driven the significant increase in international prices and on the effects of this dynamic on the sustainability of the sector. Based on the relevant literature and the FAO documents consulted, the analysis highlights that the rise in international quotations was closely associated with supply disruptions, mainly caused by adverse climatic conditions in major producing countries such as Brazil, Vietnam, Indonesia, and other key coffee-producing states, compounded by logistical difficulties and additional trade pressures. In this context, price volatility cannot be explained solely by the relationship between supply and demand, but must also be examined in connection with the structural vulnerabilities of the global value chain, the high exposure of coffee crops to climate-related risks, and the essential role of smallholder producers, who make a significant contribution to global production. At the same time, the analysis shows that the current challenges facing the coffee sector go beyond the strictly economic dimension, encompassing relevant issues such as traceability, supply chain transparency, increasingly stringent sustainability requirements, and the social and environmental costs associated with production. Looking ahead, the reduction of areas suitable for coffee cultivation under the impact of climate change may intensify market instability and lead to a reconfiguration of the relationships among production, trade, and consumption. In conclusion, this review supports the need for integrated interventions aimed at strengthening climate resilience, fostering innovation, enhancing traceability, and ensuring fair support for smallholder farmers, with a view to developing a more stable and sustainable coffee sector.

Keywords: global coffee market, price dynamics, volatility, climate change, sustainability sector, traceability, global value chain.

• Introduction

Coffee, mainly represented by the species *Coffea arabica* L. and *Coffea canephora* Pierre ex A. Froehner, is one of the most important agricultural commodities traded worldwide, playing a major economic role and supporting the incomes of millions of producers in tropical and subtropical regions.

During the 2023–2025 period, the global coffee market was marked by pronounced instability, reflected in significant increases in international prices. These developments were driven by the effects of climate change on production, logistical difficulties, rising production costs, and structural vulnerabilities within the global value chain. At the same time, this period highlighted important challenges regarding sector sustainability, traceability, compliance with new European regulations on deforestation, and the fragile position of smallholder producers. The aim of this paper is to analyse the main factors that have determined the recent increase in coffee prices and their implications for the sustainability of the sector.

• Material and method

The study was based on the analysis of scientific, technical, and institutional literature concerning the evolution of the global coffee market during the 2023–2025 period. Articles from international databases such as PubMed, Scopus, Web of Science, MDPI, and Springer Nature were consulted, along with reports published by ICO, FAO, and USDA/FAS. The documentation process focused on price dynamics, the impact of climate change, traceability, the sustainability of smallholder producers, and legislative changes, particularly Regulation (EU) 2023/1115 on deforestation-free supply chains. The sources were selected according to their relevance and timeliness.

• Results and discussions

Global coffee market & production dynamics

During the 2023–2025 period, the global coffee market was marked by pronounced volatility, against the background of high demand and vulnerable supply. World production is dominated by the species *Coffea arabica* and *Coffea canephora* Robusta, while Brazil and Vietnam account for almost half of global production. As shown in **Figure 2**, this concentration of production in a limited number of major producing regions increases the exposure of the coffee market to climatic variations and trade imbalances.

Price increase & market volatility

The increase in prices during the analysed period was determined by reduced production in the main exporting countries, high input costs, logistical difficulties, and rising maritime transport costs. In 2024, world coffee prices increased by approximately 38.8%, and this pressure was reflected both in international trade and among final consumers in importing markets.

Climate change & supply disruptions

Climate change emerged as the main risk factor for the coffee sector. Severe drought in Brazil, the El Niño phenomenon in Vietnam, excessive rainfall in Indonesia, and extreme climatic events affected productivity, bean quality, and export stability. These disruptions confirm the high sensitivity of coffee cultivation to temperature, rainfall, and water stress and help explain the price pressure summarized in **Figure 1**.

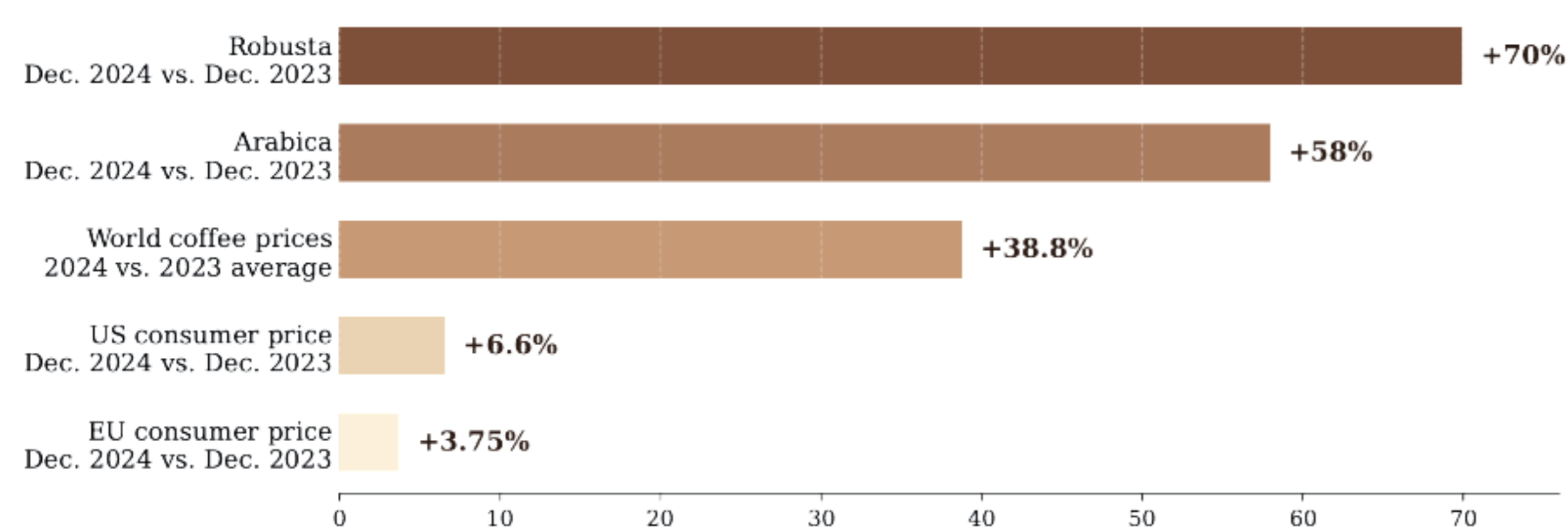


Figure 1 - Coffee price analysis, 2023-2025

Structural vulnerabilities of the value chain

The global coffee value chain remains characterized by structural vulnerabilities, particularly due to its dependence on smallholder producers, who contribute a major share of world production. These producers often have limited financial resources, reduced access to modern technologies, and a low capacity to adapt to climate-related risks. In addition, value distribution remains unequal, as only a small share of the final price reaches farmers. The production concentration presented in **Figure 2** supports the interpretation of this structural exposure.

Traceability, EUDR & sustainability requirements

The implementation of the European Union Deforestation Regulation (EUDR) imposes strict requirements regarding traceability, geolocation, and transparency for coffee placed on the European Union market. Although these measures may contribute to reducing deforestation and increasing accountability within the supply chain, they may also create additional difficulties for smallholder producers if they are not accompanied by technical and financial support.

Long-term outlook & adaptation strategies

In the long term, climate change may significantly reduce the areas suitable for coffee cultivation, particularly for *Coffea arabica*. Adaptation strategies include the development of varieties resistant to climatic stress, the expansion of agroforestry systems, the use of digital technologies for traceability, and the integration of circular economy principles through the valorisation of by-products resulting from coffee processing. This structural exposure is also supported by the data presented in **Figure 2**, which highlights the concentration of global coffee production in specific producing regions.

• Conclusions

The 2023–2025 period marked a critical moment for the global coffee sector, highlighting deep vulnerabilities generated by climate change, supply chain instability, and new legislative requirements.

The approximately 38.8% increase in world coffee prices in 2024 was the cumulative result of reduced production in Brazil, Vietnam, and Indonesia, rising transport costs, and higher input prices. In the long term, climate change represents the main threat to coffee cultivation, with estimates indicating that more than half of the currently suitable areas for coffee production could become unsuitable by 2050. At the same time, the implementation of the European Union Deforestation Regulation (EUDR) imposes stricter traceability and transparency standards, which may represent a major challenge for smallholder producers.

In this context, the sustainability of the sector depends on investments in climate-resilient varieties, the expansion of agroforestry systems, the development of digital traceability infrastructure, and support for vulnerable farmers. At the same time, the valorisation of by-products from coffee processing within the circular economy may contribute to reducing environmental impact and creating additional economic opportunities for producing regions.

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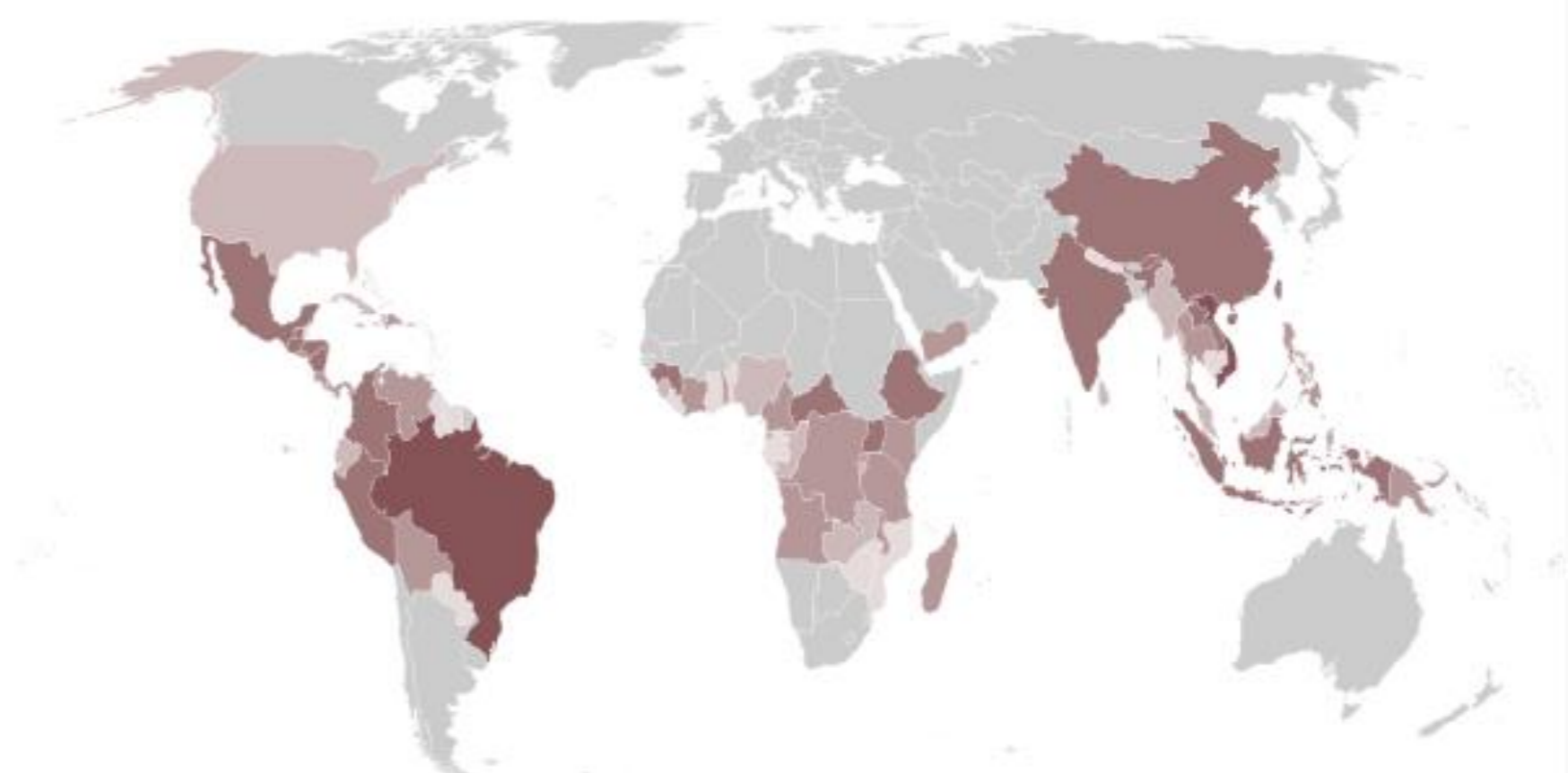


Figure 2 - World coffee production (tonnes) – FAO (2025)

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