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Structural Dependency and Land Consolidation in EU AgriFood Production: The EU-Mercosur Agreement Case on the Future of Mid-Sized Cereal Farms

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Thesis Pitch

Find the link to the thesis pitch here

Statutory Declaration

I hereby declare that I have composed the present thesis autonomously and without any other than the cited sources or means. I have indicated parts that were taken out of published or unpublished work correctly and in a verifiable manner through a quotation. I further assure that I have not presented this thesis to any other institute or university for evaluation and that it has not been published before.

26th July 2025

Cuquerella del Río, Juan Pedro

Acknowledgements

This thesis is a tribute, to the people, places, and experiences that shaped me.

To my grandmother, who now watches over me, and to my mother, sister, and dog: thank you for your unwavering love and strength.

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As a rice farmer from southern Spain, this work is my small *granito de arena* to a sector that taught me resilience, care, and humility. Being able to connect farming with trade policy and EU governance has been a privilege, and a source of immense joy.

To my professors, mentors, and supervisor, thank you for the guidance and challenge. This work is for everyone who believes in farming and policy must speak to each other, and that even small voices matter.

Abstract

This thesis explores how EU agricultural and trade policy frameworks, by failing to differentiate between farm structures, have contributed to the progressive decline of mid-sized cereal farms in Europe. Drawing on Food Regime Theory (FRT), it analyzes how current policy designs disproportionately benefit vertically integrated agribusinesses while structurally marginalizing territorially embedded cereal producers. The EU–Mercosur Agreement is used as a case study to illustrate how trade liberalization acts not as the root cause but as an accelerator of existing vulnerabilities, namely, land consolidation and import dependencies on foundational commodities like soy, maize, wheat and rice.

To explore these dynamics, the research employs a mixed-method approach that integrates theoretical analysis, correlation-based quantitative comparisons, and qualitative document review. Drawing on a wide range of primary and secondary sources, including Eurostat data, EU policy reports, and expert assessments, the study traces the relationship between rising commodity imports and the attrition of mid-sized cereal farms, driven by structural consolidation across Europe.

The findings point to a systemic blind spot: mid-sized cereal farms, although central to Europe's food sovereignty, remain largely invisible in EU-level assessments and policy narratives. This invisibility contributes to policy distortions that favor scale over resilience. To address this, the thesis proposes a set of politically viable recommendations, most notably, the creation of a cross-DG Food Resilience Taskforce—to embed structural differentiation and systems thinking into agri-food governance. In doing so, it calls for a reorientation of EU food policy that links farm structure with long-term resilience and equity.

Table of contents

Table of figures

List of abbreviations

AWU	Annual Work Unit
CAP	Common Agricultural Policy
CETA	Comprehensive Economic and Trade Agreement
CGE	Computable General Equilibrium
COM	Communication (European Commission legislative proposal)
DG	Directorate-General
EAFRD	European Agricultural Fund for Rural Development
EFSCM	European Food Security Crisis Preparedness and Response Mechanism
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FADN	Farm Accountancy Data Network
FTA	Free Trade Agreement
ha	Hectare
ILUC	Indirect Land Use Change
IPES-Food	International Panel of Experts on Sustainable Food Systems
JRC	Joint Research Centre (European Commission)
LDCs	Least Developed Countries
MS	Member States
OECD	Organisation for Economic Co-operation and Development
RED	Renewable Energy Directive
SAFPRT	Strategic Agri-Food Production Resilience Task Force
SIA	Sustainability Impact Assessment
SME	Small and Medium-sized Enterprise
TRQ	Tariff Rate Quota
WTO	World Trade Organization

Introduction

With the EU–Mercosur Agreement looming on the horizon and farmer protests erupting across Europe, the structural foundations of the European Union's agricultural system have come under critical scrutiny. What began in 1999 as a bid to strengthen EU–Mercosur ties through trade and political cooperation have now materialized into a comprehensive agreement finalized in December 2024. The deal promises to eliminate over 90% of import duties, liberalizing trade in cars, agricultural products, and agri-food goods, and includes sustainability clauses linked to the Paris Agreement. Yet despite its economic promise, the deal remains politically fragile. Vocal opposition, especially from France, Poland, and Austria, has centered on concerns about agricultural disruption and Amazon deforestation. Brussels has responded by proposing a political protocol with safeguard clauses for sensitive sectors like beef, chicken, and sugar. Even so, its status as a "mixed agreement"[1] requires ratification by all the parliaments of the 27 member states, makes final approval expected no earlier than late 2026.

While the headlines focus on deforestation or trade volume, far less attention is given to the internal structural consequences such agreements could bring. Despite being a net exporter of processed foods, the EU's agricultural model conceals a profound reliance on imported raw and intermediary agricultural commodities, especially cereals. Traditional trade analyses frame this reliance as economically beneficial, grounded in comparative advantage and global trade intensification. However, such perspectives overlook critical internal dynamics, particularly how policy design disproportionately impacts different types of agricultural operations.

This thesis challenges conventional interpretations of trade policy, shifting analysis away from broad national outcomes toward the granular impacts of specific tariff lines disadvantaged by EU trade policy, toward the granular impacts of specific tariff lines disadvantaged by EU trade policy. This approach reveals a fundamental oversight into

[1] A mixed agreement involves both the EU and its Member States as signatories, requiring joint ratification when the agreement covers areas of shared competence beyond trade.

the EU's agricultural and trade governance frameworks: the lack of differentiation between farm structures in policy assessments. By treating the agricultural sector as homogeneous, policies inadvertently amplify structural disparities, creating vulnerabilities for specific EU factors within non preferential sectors of agricultural trade policy (bulk products) such is the case of mid-sized cereal farms which struggle to compete effectively against larger agribusinesses amid declining international prices.

To operate this shift, the thesis draws from Food Regime Theory (FRT), which disaggregates the agricultural sector into three structurally distinct actor categories, which have been adapted to fit the EU context. First, transnational commodity traders, who are vertically integrated, dominate global procurement systems and input flows. Second, land-consolidating agribusinesses (usually vertically integrated) within the EU, which leverage economies of scale and benefit disproportionately from CAP payments. Third, territorially embedded mid-sized farmers, usually family-run businesses, excluded from globalized supply chains and structurally vulnerable to price shocks and policy neglect. The analysis focuses on mid-sized farms, as their scale, especially in cereal production, allows them to surpass subsistence-level production and operate as legitimate agricultural businesses. These farms often have a rooted history in soil cultivation, distinguishing their practices from those of large, corporately owned, land-consolidated agribusinesses. By distinguishing between these actors, this body of work sheds light on the asymmetric foundations of Europe's food system and the narratives that sustain them.

Therefore, under trade liberalization frameworks exemplified by the EU–Mercosur Agreement, medium-sized cereal farmers face severe price pressures, prompting consolidation as their only economically viable response. Land-consolidating agribusinesses, favored by substantial per-hectare subsidies, exploit these conditions to acquire smaller competitors, further consolidating agricultural production. This consolidation process entails severe socioeconomic and environmental costs within the EU, including rural depopulation, erosion of seed diversity, and reduced resilience to external shocks such as climate events and geopolitical conflicts.

The EU's approach towards agricultural and food production is firmly anchored in output-centric metrics, typically assesses security through coverage ratios of staples like wheat and maize, overlooking the deeper implications of structural consolidation. While immediate output appears stable, foundational agricultural commodities, key to food and livestock production become increasingly concentrated, both internationally among a few transnational commodity traders and domestically within land-consolidating agribusinesses. This model marginalizes mid-sized farms, eroding an essential layer of agricultural diversity and resilience crucial for long-term stability.

Recognizing these dynamics, the research presented in this thesis investigates the structural and governance vulnerabilities underpinning EU agricultural policy, with specific emphasis on the catalytic role that the EU–Mercosur Agreement has in perpetuating them. Employing Food Regime Theory, it critically examines how trade liberalization measures and governance vulnerabilities entrench existing power imbalances, consolidating landownership and intensifying external agricultural commodity dependencies. Through this lens, the analysis seeks to illuminate the structural risks embedded in current policy frameworks and propose strategic adjustments aimed at rebalancing agricultural governance toward resilience, equity and security.

The thesis unfolds through four structured chapters. Chapter 1 lays the analytical groundwork, detailing how EU trade policy and agricultural policy's conflation of food and agricultural output, together with a lack of differentiation of farm structures inherently favors dependency on agricultural commodities and agribusiness consolidation. Chapter 2 analyzes the EU–Mercosur Agreement in depth, highlighting the specific tariff reductions accelerating vulnerabilities for mid-sized cereal farms ultimately hinting at how it fosters land consolidation. Chapter 3 explores the wider socioeconomic and environmental repercussions of farm consolidation, emphasizing rural depopulation, biodiversity loss, and systemic fragility. Lastly, Chapter 4 synthesizes these insights into concrete policy recommendations, advocating reforms that acknowledge farm structural diversity, mitigate dependencies, and foster sustainable agricultural resilience across the European Union.

Methodology

This thesis employs a mixed-method approach to systematically explore the structural vulnerabilities within the EU's agri-food system, specifically targeting the impacts of trade liberalization on mid-sized cereal farms. Given the absence of existing analyses addressing the differential impacts of trade agreements on various farm structures, this research combines theoretical, qualitative, and quantitative methodologies.

The study is grounded in Food Regime Theory (FRT), a theoretical framework that differentiates between distinct actor categories within agricultural systems, allowing for nuanced analysis of power dynamics and structural dependencies. FRT provides the analytical lens to distinguish between land-consolidating agribusinesses, transnational commodity traders, and territorially embedded mid-sized farms, thus enabling a critical evaluation of how trade agreements and agricultural policy instruments such as the CAP unevenly affect these groups.

To apply this theoretical perspective empirically, the research employs a case study of the EU–Mercosur Agreement. Case study methodology is particularly suited here as it facilitates an in-depth examination of the trade agreement's specific tariff liberalizations, analyzing how these intensify pre-existing structural vulnerabilities such as land consolidation and import dependencies on commodities like maize like wheat and rice.

Quantitative data on land consolidation trends, cereal farm numbers, and import volumes of foundational agricultural commodities were sourced from Eurostat, UN Comtrade, and relevant EU reports. This data allowed for a robust correlation analysis, demonstrating clear patterns of consolidation corresponding with increased reliance on imported cereals, offering tangible evidence supporting the thesis hypothesis.

Primary and secondary sources, including official EU policy documents, Sustainability Impact Assessments (SIAs), academic publications, and expert reports (e.g., IPES-Food, European Court of Auditors), supplemented this quantitative analysis. These sources

provided contextual depth, highlighting governance gaps and policy oversights that exacerbate structural vulnerabilities.

Finally, the thesis advances actionable policy recommendations through comparative analysis, identifying feasible governance reforms aimed at maximizing impact while minimizing political resistance. These recommendations are drawn from existing EU institutional precedents, such as task forces (e.g., EFSCM) and CAP reform. The mixed-method design not only illuminates a previously overlooked phenomenon, the marginalization of mid-sized cereal farmers due to the lack of structural differentiation between agricultural actors in both trade and agricultural policy, but also proposes targeted, politically viable solutions to ensure that farm structure is acknowledged to enhance resilience and equity in EU agri-food governance.

Research question

How do structural trade dependencies on raw and intermediary agricultural commodities contribute to the consolidation of transnational commodity traders and vertically integrated agribusinesses within European food production, and in what ways does the EU–Mercosur Agreement accelerate this process—particularly to the detriment of mid-sized cereal farms?

Literature review

European food production is increasingly governed by structural trade dependencies and the consolidation of vertically integrated agribusinesses. As trade liberalization accelerates, epitomized by the EU-Mercosur Agreement, mid-sized cereal farms, long the backbone of rural European economies, are disappearing. While scholarly and institutional analyses engage with trade and agricultural dynamics, they typically treat agriculture as a homogeneous sector. This literature review critically assesses the degree to which primary and secondary sources—both scholarly and policy-based, acknowledge such differentiation. It focuses in particular on how the invisibility of mid-sized cereal farms within governance frameworks reinforces patterns of land concentration and commodity dependency, ultimately weakening the long-term resilience of Europe's agri-food systems.

The review identifies a literature gap: most sources fail to disaggregate the impacts of agricultural and trade policy by farm size (small, medium, large) and structure (vertically integrated, family managed). Using both institutional datasets (Eurostat, Comtrade) and academic frameworks (Food Regime Theory, CAP analysis), the literature is synthesized into three thematic clusters: (1) Trade Policy, Food Regime Theory, and Structural Dependency; (2) Governance Blind Spots in EU Agricultural Policy; and (3) Consolidation, Farm Disappearance, and Socio-Ecological Risks. This structure allows for a focused assessment of how existing literature obscures the unique vulnerabilities of mid-sized cereal farms and validates the thesis' actor-specific contribution.

Trade Policy, Food Regime Theory, and Structural Dependency

Food Regime Theory (Friedmann & McMichael, 1989; Goodman, 1997) offers a structural lens to assess trade liberalization. It posits that global food systems are historically shaped by state-capital alliances that prioritize accumulation over equity. The EU's agri-food trade structure fits this pattern, with increasing dependency on raw and intermediary commodity imports, particularly soy, maize, and rice, which underpin its processed food export model. This theoretical approach shifts the analytical focus away from conventional questions about tariff advantages or national trade balances,

and instead highlights which agricultural actors benefit from current trade structures and which are systematically marginalized.

Quantitative evidence from Eurostat and UN Comtrade shows that the EU, while a net exporter of processed goods, remains structurally reliant on imports of animal feed and staple commodities. (Baltensperger & Dadush, 2019), Loi et al. (2024) and the FAO (2024) report that over 96% of soy used in EU livestock production is imported, primarily from Mercosur countries. WTO and European Commission statistics confirm that Free Trade Agreements (FTAs) such as EU-Mercosur exacerbate this dependency by facilitating access to low-cost inputs while securing export markets for value-added European goods.

Franc et al. (2021) and Gawdiya et al. (2025) highlight how this trade dynamics empower transnational commodity traders (e.g., Cargill, ADM, Bunge), enabling them to shape EU market flows and marginalize less integrated actors. Yet these studies often fail to disaggregate the internal impacts of these dependencies on different farm structures. Savary et al. (2020) outline the systemic risks of import dependencies, but do not assess how mid-sized cereal farms are disproportionately exposed due to lack of scale, political voice, or integration.

The broader literature acknowledges EU dependency but generally treats agriculture as a sectoral aggregate. This masks the fact that mid-sized farms, unlike large agribusinesses, cannot offset input costs through vertical integration or political leverage. The thesis addresses this oversight by connecting trade structures directly to actor-specific outcomes, highlighting how trade-induced price pressures accelerate structural attrition among mid-sized cereal farms.

Governance Blind Spots in EU Agricultural Policy

EU agricultural governance—including the Common Agricultural Policy (CAP), Sustainability Impact Assessments (SIAs), and trade evaluations—systematically obscures farm-level structural diversity. Reports such as the European Commission's "Statistical Factsheet EU 27" (2022), "Study on the Future of EU Agriculture" (2023), and "EU Agricultural Outlook for Markets, Income and Environment 2023-2033" (2025)

consistently apply average-based indicators to assess farm incomes and competitiveness. These methods render the unique vulnerabilities of mid-sized cereal farms invisible.

De Schutter (2019) and IPES-Food (2016, 2021) critique the democratic deficits and corporate biases embedded in EU food policy. They argue that CAP subsidies and trade agreements are shaped by lobbying from umbrella organizations such as Copa-Cogeca, which conflate the interests of agribusiness with those of farmers at large. Candel et al. (2023) and Moragues-Faus et al. (2019) extend this critique, noting that CAP instruments, including eco-schemes, are ill-suited to support structurally diverse farms.

Evaluations from the Joint Research Centre (JRC) and the LSE SIA use Computable General Equilibrium (CGE) models, which aggregate data across farm types and sectors. As a result, they cannot detect the differentiated effects of policy on mid-sized cereal farms, which fall between the definitional cracks of "smallholders" and "efficient" large farms. The European Court of Auditors (2022) points to inefficiencies in CAP targeting yet fails to analyze distributional inequities along structural lines.

Moreover, institutional monitoring tools such as the European Food Security Crisis Preparedness Mechanism (EFSCM) track macro-level price fluctuations but lack actor-sensitive indicators such as land concentration or exit rates by farm size. The Farm to Fork Strategy claims to promote sustainability but retains hectare-based subsidy formulas that indirectly incentivize consolidation. As such, EU policy frameworks reinforce rather than mitigate structural disparities.

This cluster underscores a critical literature and governance gap: without structural disaggregation, policies appear neutral while perpetuating inequities. The thesis intervenes by foregrounding actor differentiation, particularly the structural squeeze on mid-sized cereal farms.

Consolidation, Farm Disappearance, and Socio-Ecological Risks

The third cluster synthesizes literature on farm consolidation and its socio-ecological consequences. Boccaletti et al. (2024), Lowder et al. (2021), and Rossi (2022) document

the decline of mid-sized farms across Europe, linking this trend to policy-driven scaling, market concentration, and demographic attrition. These studies highlight a macro trend but seldom disaggregate by crop or structural type.

Schuh et al. (2020) and Van den Berge et al. (2024) connect structural change to environmental degradation, arguing that large-scale monocultures reduce agroecological resilience. Moretti et al. (2024) show that mid-sized cereal farms are more likely to employ diversified rotations and maintain soil health. Yet despite this ecological advantage, they receive less institutional support and face higher market exposure.

Neumeister & Rohwedder (2023) and the European Investment Bank (2023) outline how mid-sized farms fall into a financing gap: too large for microloans, too small for corporate credit. Sajn (2023) provides data on land concentration, revealing that 10% of farms control nearly half of arable land, a dynamically accelerated by FTAs that favor export-oriented agribusiness. Still, literature rarely names mid-sized cereal farms as distinct victims.

Gawdiya et al. (2025) provide regional data on consolidation, but their analysis remains sectoral. This analytic uniformity persists across most institutional assessments and academic studies, which recognize consolidation without identifying its uneven effects. The thesis corrects this by empirically demonstrating that mid-sized cereal farms are the most affected, both structurally and environmentally.

This cluster validates the thesis' hypothesis: the disappearance of mid-sized cereal farms is not merely a statistical trend but a consequence of structural misrecognition in both market and governance systems. By integrating actor-specific insights, the thesis contributes a necessary layer of granularity to consolidation studies.

Conclusion

Across the literature, a consistent pattern emerges while trade dependency, policy homogenization, and consolidation are well-documented, their differential impacts on structurally distinct farm types are largely ignored. Existing literature and institutional models perpetuate the notion of farmers as uniform set of actors at most by crops, rendering invisible the structural differences within them something that exposes the vulnerability of mid-sized cereal farms.

Chapter 1 - The EU's Agricultural and Trade Policy as a Structure of Dependency

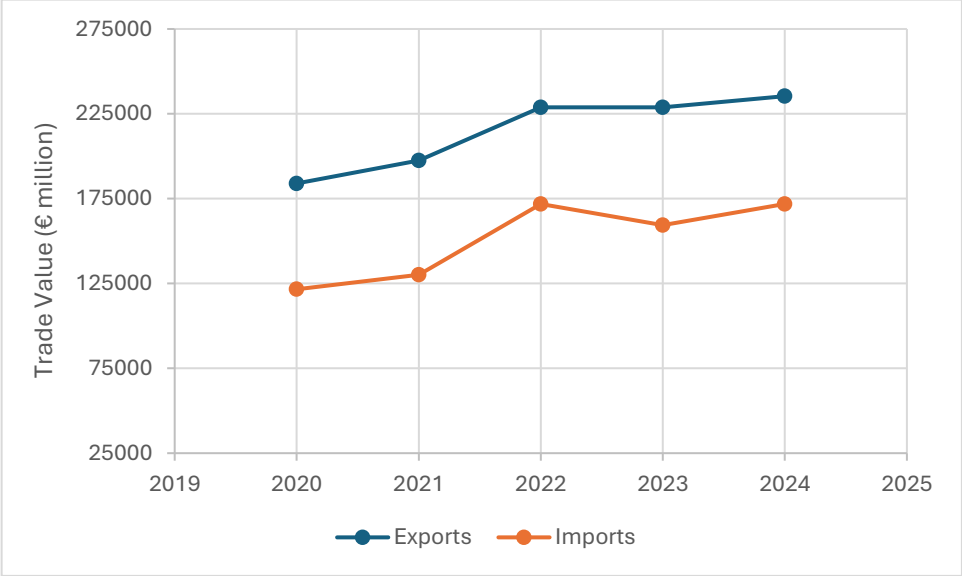
This chapter lays the analytical and theoretical foundation for the thesis, demonstrating that growing trade dependency on raw and intermediary agricultural commodities, alongside the consolidation of agribusiness, are not incidental developments but defining features of European agricultural and trade policy. These trends are not the result of insufficient production capacity or geographical constraints; instead, they emerge from structural vulnerabilities embedded within the EU's food and agricultural governance. To guide this analysis, the chapter is organized around three interconnected reasons. First, it shows how EU policy prioritizes trade performance over systemic resilience, fostering structural dependence on external agricultural commodities and inputs. Second, it criticizes the discursive framing of food security, which conflates output with autonomy and obscures the underlying risks of import overreliance. Third, it examines how EU governance homogenizes agricultural actors, failing to differentiate the distinct vulnerabilities of mid-sized farms from those of land-consolidated vertically integrated agribusinesses. These three dynamics are shown to converge in reinforcing a model of agricultural production that cements dependency and exclusion. By drawing on Food Regime Theory (FRT), this chapter offers a critical lens to reveal these vulnerabilities as structurally embedded rather than incidental, setting the groundwork for analyzing how the EU–Mercosur Agreement intensifies a model that poses negative consequences for mid-sized farms.

1.1 Trade Performance over Systemic Resilience: How EU Policy Incentivizes Structural Dependency

The expansion of the EU's network of Free Trade Agreements (FTAs) has been a central pillar of its external trade policy. As of 2019, the EU maintained 41 FTAs covering 72 countries, with additional agreements under negotiation or awaiting ratification. This trajectory reflects the Union's strategic push to secure preferential market access for its globally competitive agri-food sector, particularly in high-value categories such as dairy, processed food, and Geographical Indications (Emanuele et al., 2024).

This export-driven model has translated into a consistent agri-food[2] trade surplus, with EU exports surpassing imports by an average of €60 billion annually between 2020 and 2024. During this period, agri-food exports increased from €183.9 billion to €235.4 billion, while imports rose from €141.5 billion to €171.9 billion.

Figure 1. EU Agri-food trade with Extra - EU 27 (2020-2024) (Imports & Exports)



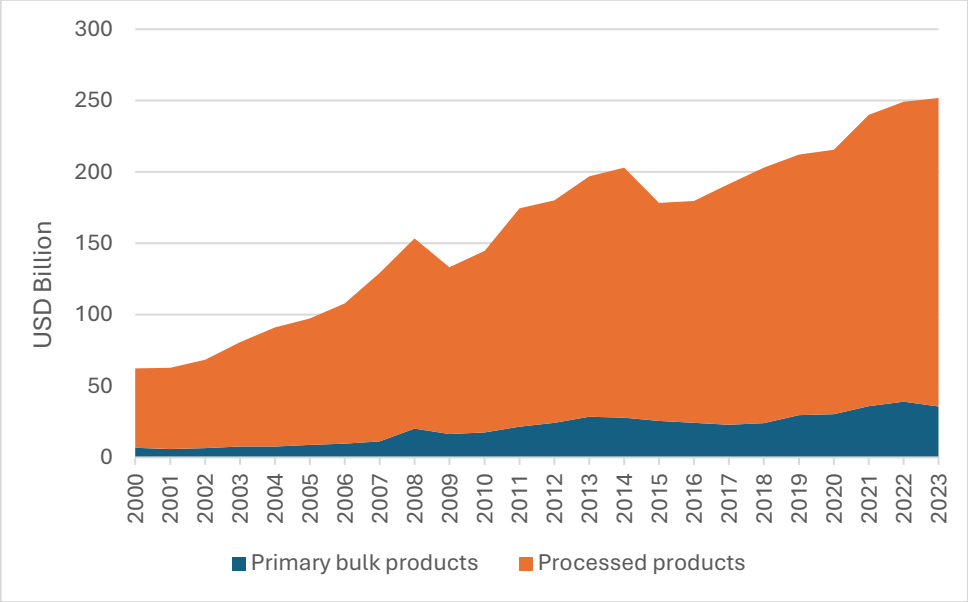
Source: (European Commission, 2025b), EU 27 agri-food trade: Key facts and figures.

However, a closer analysis reveals a structural paradox behind the EU's agri-food trade surplus, which averaged approximately €60 billion annually between 2018 and 2022. This surplus, while seemingly robust, is largely value-driven, anchored in high-value exports such as processed foods, dairy, alcohol, and Geographical Indications, yet it depends heavily on imported raw and intermediate agricultural commodities and inputs, notably soy, maize, and fertilizers. The EU's tariff and tariff-rate quota (TRQ) architecture institutionalizes this asymmetry: while politically sensitive sectors like beef and sugar enjoy strong protection, key inputs such as soybeans, soymeal, wheat and maize enter the EU under preferential conditions or minimal tariffs. Maize, in particular, benefits from a larger TRQ than beef or poultry under recent trade agreements and

[2] "Agri-food products" refers to the WTO definition of agricultural products and includes the chapters 1-24 (excluding fish and fish products) of the Harmonised System, and a number of headings in chapters 29, 33, 35, 38, 41, 43 and 50-53. The aggregate of EU Agri-food trade does not contain tariff codes CN 3302.10.40 and CN 3302.10.90 (some odoriferous substances which are regarded as industrial products).

serves not only the livestock sector but also the expanding food processing and bioenergy industries. Lowering tariffs on agricultural commodities plays an essential role, as these foundational commodities are crucial to producing high-value agri-food exports (Savary et al., 2020) (Franc et al., 2021). This supports a dual-track strategy of promoting high-value exports while encouraging agricultural commodity imports as seen in (Directorate-General for Agriculture and Rural Development, Unit G.1, 2025).

Figure 2. Trade Balance of the EU – Export of Processed products vs bulk

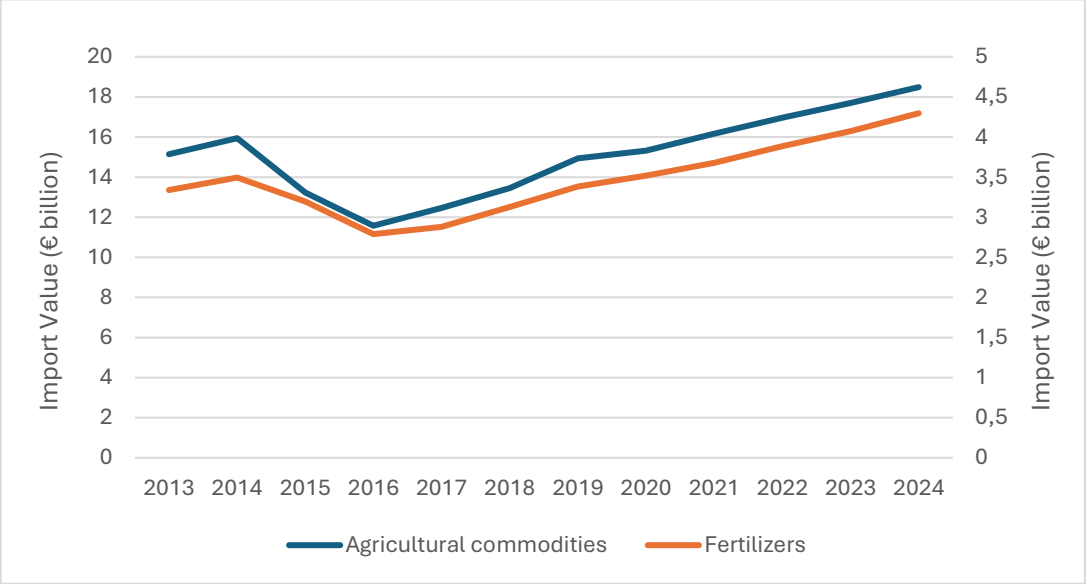


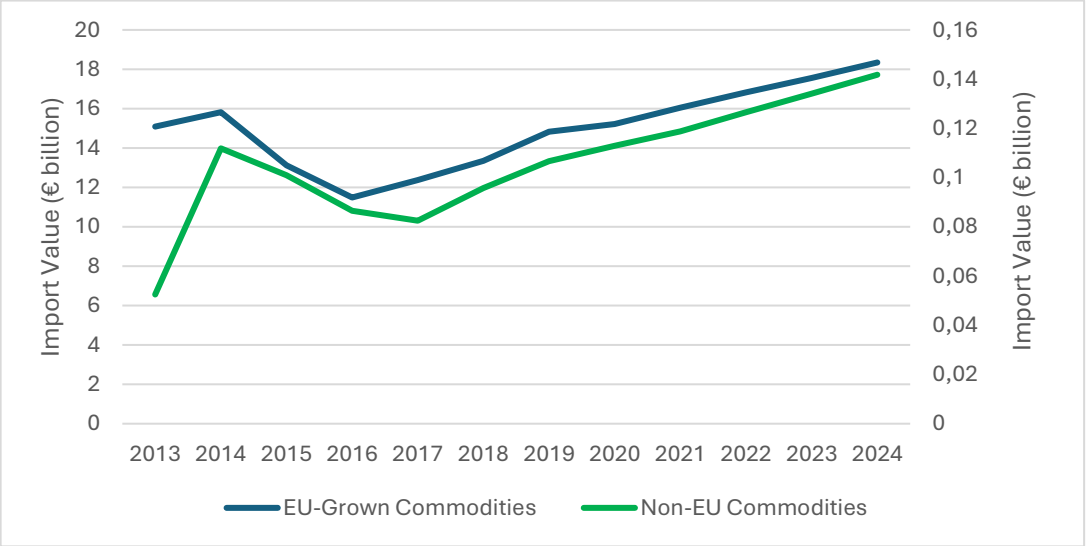
Source: WTO, (*UN Comtrade*, n.d.)

This “tariff/TRQ duo” within FTA’s enables active export promotion by lowering external barriers for value added products alongside defensive protection of vulnerable sectors. For example, the EU–Mercosur Agreement, quotas for South American beef and poultry amount to minimal per capita concessions, approximately “two burgers and two chicken fillets per EU citizen per year”, carefully designed to defuse domestic resistance without materially altering internal markets. Furthermore, most FTAs include safeguard clauses. The CETA Agreement’s Article 5.9, for instance, allows reimposition of tariffs if surging imports threaten domestic industry (CITA). Such mechanisms confirm that EU trade policy is not uniformly liberalizing but selectively so, structured to maximize benefits for its agri-food exporters while retaining strategic protections.

This model, however, fosters the growth of troubling dependencies on external suppliers. According to European Parliament data, the EU imports approximately 36 million tonnes of soybeans and soymeal annually, primarily from Brazil, the United States, and Argentina, while domestic soybean self-sufficiency remains critically low at just 5% (Loi & others, 2024). Even under optimistic scenarios, achieving 50% self-sufficiency would require converting 4–11% of total cropland to soy cultivation, an outcome severely constrained by soil conditions, climatic limitations, and competition with existing food crops (Loi & others, 2024). Although maize is better suited to European agro-climatic zones, its strategic importance in livestock feed, food processing, and bioenergy production consistently outpaces domestic supply, reinforcing import dependency. Fertilizers, though outside the primary scope of this analysis, further illustrate structural vulnerability. EU production of ammonia and other key nutrients is projected to decline by 5–6% by 2030, increasing reliance on external suppliers such as Russia, Morocco, and Belarus (Loi & others, 2024). Moreover, efforts to expand the domestic alternatives to soy would require millions of hectares of land, an investment misaligned with current environmental and land-use priorities. These limitations indicate that, under present agricultural governance structures, reducing import dependency through expanded domestic production remains largely unfeasible.

Figure 3. Growth of imports of Agricultural commodities[3] (EU Grown Commodities and non-Eu Commodities + fertilizers)





Source: WTO, (*UN Comtrade*, n.d.)

[3] EU-Grown Agricultural Commodities include imports under HS codes:
100119, 100199, 100290, 100390, 100490, 100590, 100620, 100630, 100640, 100790, 100810, 100820, 100829, 100840, 100860, and 230400.
These primarily cover wheat, barley, maize, oats, rice, millet, triticale, and soybean meal, crops typically cultivable within the EU.
Non-EU Grown Commodities include HS codes :
100850, 100890, and 120100,
which represent quinoa, other non-traditional cereals, and soybeans, commonly imported due to limited or non-viable cultivation within the EU.
Fertilizers include HS codes:
3102, 3103, and 3104,
which correspond respectively to nitrogenous, phosphatic, and potassic fertilizers used in primary agricultural production.

From 2013 to 2024, imports of EU-grown crops rose from €15.1 bn to €18.3 bn, a 22 % increase. Over the same span, imports of commodities the EU cannot grow jumped from €0.05 bn to €0.14 bn, a 170 % increase. Thus, the graph shows both lines trending upward, but the far steeper climb for non-EU commodities highlights a rapidly expanding dependency on external suppliers.

EU documents, such as the European Commission's *Staff Working Document on Strategic Dependencies* (SWD (2021) 352 final) and the Joint Research Centre's *Technical Report on EU Food System Resilience* (2022), acknowledge geopolitical risks while proposing solutions centered around supplier diversification as well as incentivizing domestic protein crop production. Although well oriented and evidence based, these responses treat dependency as a logistical or market inefficiency, rather than as an outcome of institutional design. This framing aligns with official narratives that attribute trade vulnerabilities and land concentration to legacy CAP reforms or global economic trends, thereby deflecting responsibility from current policy structures. As a result, the prevailing analysis privileges trade performance metrics over resilience indicators, obscuring the deeper architecture of vulnerability. Food Regime Theory (FRT), by contrast, offers a more incisive framework. It reveals how structural input dependency and land consolidation are not unintended side effects but institutionalized outcomes that disproportionately benefit a narrow group of industrialized agricultural actors.

This analytical lens is essential because official EU trade factsheets and impact reports routinely homogenize agricultural actors, referring broadly to "EU farmers" without distinguishing between small-scale producers and vertically integrated corporate operators (European Commission, 2024). For example, the European Commission's 2023 Agricultural Outlook presents aggregated data on farm outputs and vulnerabilities but omits segmentation by farm size or integration level (European Commission, 2023). This framing conceals the growing concentration of market power in the hands of large transnational commodity traders. According to (Wion et al., 2024a), four dominant commodity traders, Archer Daniels Midland, Bunge, Cargill, and Louis Dreyfus, control between 50–60% of global trade in wheat, maize, and soybeans, and manage roughly 55% of the EU's grain and oilseed imports. Simultaneously, land consolidation within the

EU has intensified: between 2010 and 2020, approximately 3 million farms disappeared, while average farm size and output concentration rose sharply. Gini coefficients[4] further illustrate this disparity, with the top 10% of farms now controlling nearly half of all agricultural land and standard output (Boccaletti et al., 2024). This omission distorts the problem as one of generalized producer vulnerability, when in fact it is a result of institutional arrangements that favor capital-intensive, vertically integrated actors. Without recognizing these asymmetries, policy frameworks cannot effectively address the deeper challenges of systemic resilience.

To further contextualize the drivers of this consolidation, the chapter turns to FRT's institutional analysis. Developed by (Friedman & McMichael, 1989), and expanded by (Goodman, 1997) to underscore the differences between farm actors, the theory contests the idea that global agricultural trade patterns are the natural result of market efficiencies. Instead, it situates them within historically embedded systems of capital accumulation and strategic state-corporate alliances. The current "corporate food regime" is defined by the dominance of transnational agribusinesses and the enabling power of liberalized trade policies. These arrangements allow firms to flexibly source raw & intermediate agricultural inputs while externalizing ecological and social risks onto less powerful producers. From this perspective, trade dependencies are not accidental inefficiencies, but the intentional result of governance structures designed to serve integrated corporate interests.

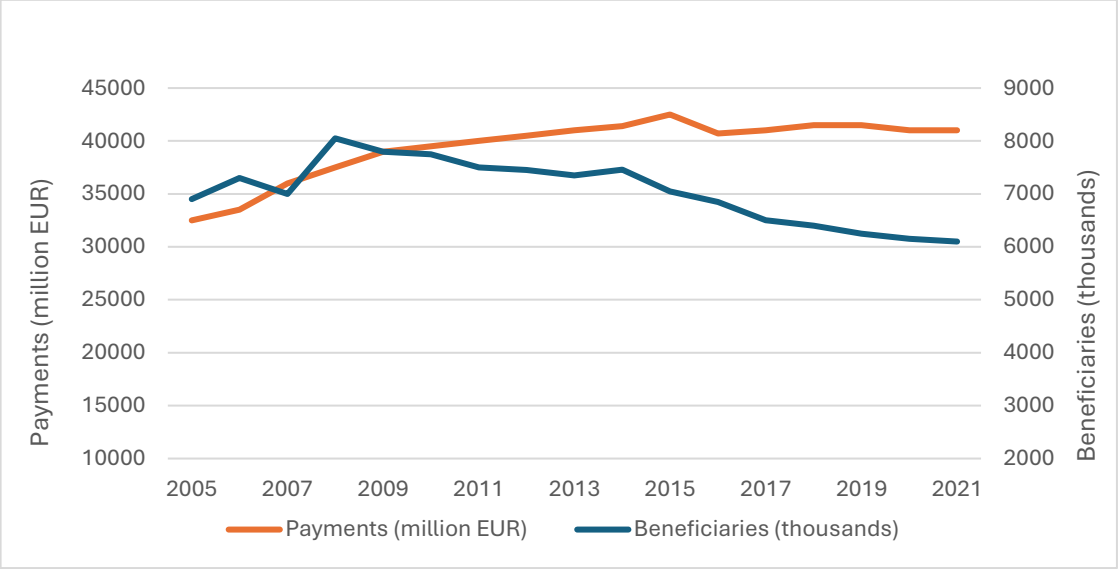
CAP reforms exemplify how institutional dynamics fostered structural dependency and land consolidation within the EU's agri-food system. Originally designed in 1962 to stabilize markets, ensure food security, and protect farmers' incomes, the Common Agricultural Policy (CAP) relied on price supports, intervention buying, and export subsidies to achieve these aims. By the 1980s, however, these instruments had

[4] The Gini coefficient measures how unevenly farmland is distributed across holdings, based on actual land-area data for each farm (from sources like Eurostat's Farm Structure Survey). A value of 0 implies perfect equality (all farms are the same size), while 1 indicates complete inequality (one farm owns all the land). In practice, coefficients above 0.6 imply high land concentration, reflecting scenarios where a few large farms dominate, reducing diversity and territorial resilience. Computing the index involves tallying each holding's share of total land, ranking them by size, and calculating the standard statistical metric; values are readily updated annually or every few years. Embedding this indicator in EFSCM's "traffic-light" dashboard allows early detection of structural risks.

generated chronic overproduction, producing infamous “butter mountains” and “wine lakes”, which rendered the system fiscally unsustainable and politically contentious (Erjavec & Erjavec, 2021) (Salhofer & Feichtinger, 2021). In response, the 1992 MacSharry and 2003 Fischler reforms marked a decisive shift. Under GATT and later WTO pressure, CAP transitioned toward market-oriented instruments, replacing production-linked support with decoupled per-hectare payments. The MacSharry reform introduced compensatory payments and mandatory set-asides, while the Fischler reform launched the Single Payment Scheme, delinking support from output levels and basing it on land area. These changes aimed to control surpluses and ensure fiscal sustainability, particularly in light of EU enlargement (Erjavec & Erjavec, 2021).

Yet this transformation also dismantled key safety nets, exposing producers, particularly mid-sized farms, to increased price volatility and heightened exposure to global market shocks. Simultaneously, land-consolidating agribusinesses restructured to take advantage of the reformed payment regime. Area-based entitlements disproportionately favored large landholders, reinforcing existing structural asymmetries. Faced with rising price competition due to trade liberalization, these actors, who experienced significantly less margin pressure than smaller farms, were incentivized to expand landholdings as a strategy for maintaining profitability through economies of scale and enhanced subsidy access. This dynamic has fueled both land consolidation and the concentration of CAP support. In 2005, over 8.5 million farms received CAP payments; by 2021, that number had dropped to 6 million, even as total disbursements remained stable at approximately €41 billion. Today, the top 20% of beneficiaries receive 80% of direct payments, while farms larger than 250 hectares, just 1.1% of all recipients, capture 22% of total funds (European Commission, Direct payments to farmers, 2025c). These structural outcomes reveal how CAP reform, despite being framed as liberalization and fiscal discipline, has entrenched a model that consolidates agribusiness power and deepens dependency on external agricultural inputs and foundational commodity imports.

Figure 4. Evolution of total payment in millions of euros and beneficiaries of CAP



Source: (Eurostat, 2025a) (European Commission, Direct aid report, 2025c)

A similar pattern of concentration is evident in the international agricultural commodity-trading sector. The dominance of a handful of transnational commodity traders, ADM, Bunge, Cargill, and Louis Dreyfus, often referred to as the "ABCD" group, significantly amplifies vulnerabilities. Together, they control around 70% of global soy, corn, and wheat trade, with particularly strong influence over EU-bound flows (FAO, 2024) (Wion et al., 2024b). Their control spans multiple points of the supply chain, logistics, pricing, and compliance, giving them considerable leverage over trade policy and market access (Gouveris, 2024). FRT's lens shifts the analysis from net trade metrics to the structural forces enabling such dominance.

This perspective reorients the official analysis of EU agricultural policy, highlighting not only total trade volume but also its winners and losers within the agricultural production sector, and reinforcing the notion that structural vulnerabilities are politically constructed, not economically inevitable. These structural dependencies in trade and landownership are compounded by the way they are presented, or obscured, within EU discourse. To understand why these dependencies, persist despite mounting risks, we must analyze not only policy instruments but also the framing devices that shape how dependency is conceptualized and managed.

1.2 Discursive Framing and the Conflation of Food Production with Security

EU policy discourse plays a critical role in reinforcing structural vulnerabilities within European food systems by conflating food with agricultural output. This conceptual conflation obscures the growing input dependencies and consequences of land consolidation. It arises because official metrics prioritize aggregate food production volumes without distinguishing between the different actors that compose food systems such as food processors, large consolidating agribusinesses, or middle size farmers. As a result, overall production growth is portrayed as sector-wide success, masking the increasing concentration of land, subsidies, and value in the hands of vertically integrated actors. This framing legitimizes existing policy trajectories and diverts scrutiny from the fragile foundations underpinning European food systems.

This narrative becomes particularly visible during periods of systemic disruption. Following the 2022 invasion of Ukraine, the European Commission's communication "Safeguarding food security and reinforcing the resilience of food systems" (COM(2022) 133 final) asserted that "food supply is not at stake in the EU today," citing grain self-sufficiency and strong export performance (European Commission, 2022). However, the same document simultaneously acknowledged critical vulnerabilities, such as Europe's dependence on imported feed, fertilizers, and energy. This contradiction illustrates a rhetorical sleight of hand: by emphasizing robust output data and underplaying key input dependencies, EU policy constructs a misleading image of resilience and autonomy.

A closer examination of EU food governance reveals that this narrative stems from institutional limitations within the European Commission. According to (Candel et al., 2016), the Commission treats food security as a "tame" problem, one considered solvable through sector-specific tools, rather than as a "wicked" problem characterized by complexity, conflicting values, and shifting conditions, which better describe the interconnected nature of food systems. This can lead to contradictory outcomes, such as the labeling of the Mercosur Agreement as an opportunity for "EU farmers", a DG Trade initiative that fails to consider that most exported products to Mercosur are high-

value processed goods commercialized by large agribusinesses. This again conflates food and agricultural output. Despite initiatives like inter-service consultations and impact assessments, the lack of a coordinating meta-governance framework renders holistic food governance elusive. Proposals such as the Common Food Policy (IPES-Food, 2017) remain aspirational due to institutional inertia and fragmented mandates across Directorates-General (DG AGRI, DG SANTE, DG TRADE, DG ENV).

This fragmented institutional logic results in a siloed approach to food policy. EU communications and initiatives, including the "EU Agricultural Outlook 2023–2035" and the Farm to Fork Strategy, routinely equate food production with agricultural output. In doing so, they treat food-related challenges as isolated and solvable through production-oriented interventions, sidelining their systemic nature. Structural issues, such as reliance on imported protein feed or the uneven impact of trade liberalization, are handled within separate bureaucratic silos, resulting in disjointed strategies. As (Moragues-Faus et al., 2017) demonstrate, this fragmented governance fails to address root causes, instead focusing on proximate outcomes like consumer access and price stability.

Consequently, EU resilience planning remains reactive and inadequate. The current policy discourse permits continued dependency on critical raw and intermediary agricultural commodities while reinforcing productivity-oriented metrics at the expense of systemic robustness, without accounting for differences between actors. By defining food security primarily in terms of production volume, EU policy documents incentivize yield maximization through monoculture and high external input use. This logic is evident in the EU Agricultural Outlook 2023–2035, which projects increased food productivity as a strategic goal, achieved through the prioritization of agroecological practices alongside a gradual reduction in fertilizer use and diversification of imported feed (European Commission, 2023). However, it fails to acknowledge the structural costs such shifts impose on farm structures. EU frameworks often conflate food security with

food sovereignty[5], obscuring critical distinctions between ensuring sufficient food and ensuring long-term resilience through sustainable systems. This conflation enables overreliance on raw and intermediate agricultural inputs to be framed as resilience-compatible, even when structural vulnerabilities, such as the decline in farm numbers and persistent protein dependency, are evident.

Although task forces such as the EFSCM, in charge of enabling fast coordinated responses to supply shocks, employ coverage ratios and price indicators, supply chain tracking, and crisis response capabilities, they do not account for structural shocks that might arise within the EU agricultural production complex (*Report on the Activities of the Group of Experts on the European Food Security Crisis Preparedness and Response Mechanism (EFSCM)*, 2023). For example, they lack indicators addressing land consolidation, an oversight that perpetuates the EU's limited understanding of food security as merely ensuring food output.

The Farm to Fork Strategy, launched in 2020 as part of the European Green Deal, continues this trend. While it introduces sustainability goals, such as reducing pesticide and fertilizer use by 50% and 20% respectively and expanding organic agriculture to 25% it does so despite the prevalence of the previously mentioned vulnerabilities, something that affects its degree of completion. From a Food Regime Theory perspective, the strategy's emphasis on "strategic autonomy" appears more discursive than transformative (Weber et al., 2025), as it operates in parallel to key mechanisms like hectare-based payments, which remain in place and benefit larger landowners regardless of environmental compliance.

In addition, research by the (European Court of Auditors, 2020) highlights how such direct payments effectively hinder mid-sized family farms' ability to expand, as decoupled payments have been shown not to be reinvested in improving productivity or innovation. This disincentivizes investment while increasing land values, making it more difficult for smaller actors to expand. Meanwhile, agribusinesses can capitalize on

[5] Food sovereignty refers to the right of peoples to define their own food systems, prioritizing local, sustainable production, equitable access to resources, and democratic control over agricultural policies, in contrast to market-driven models (La Vía Campesina, 1996).

their scale to acquire smaller farms by securing financing, using their existing operations as collateral, making it easier for them to access finance (European Investment Bank, 2023). These dynamics hinder efforts to achieve territorial equity or an agroecological transition.

This institutional framing sets the stage for the next section, which explores how EU policy frameworks obscure producer heterogeneity, thereby masking the distinct vulnerabilities of mid-sized, non-integrated farms within trade and subsidy regimes.

1.3 Homogenization of Farm Actors

Recent EU policy documents emphasize the need to diversify supply chains, yet they continue to frame trade policy in terms of generalized "farmer" opportunity. Nowhere is this clearer than in the promotional rhetoric surrounding Free Trade Agreements (FTAs), where expanded market access is touted as delivering benefits to "EU farmers" (European Commission, 2024). This generalized framing contrasts sharply with the lived experiences on the ground: across Europe, mid-sized and small-scale farmers are protesting rising input costs, volatile markets, and declining policy support.

This institutional blind spot becomes particularly visible in trade impact assessments. Studies for agreements such as the EU–Mercosur FTA, CETA, or the EU–Japan EPA typically evaluate impacts at the sectoral level—focusing on commodities like beef, dairy, or cereals—without disaggregating by farm size, production system, or regional context. For instance, the Sustainability Impact Assessment (SIA) conducted for the EU–Mercosur Agreement relies on the GDyn[6] version of the GTAP computable general equilibrium model to estimate average output and price shifts for broad agricultural sectors across the EU and Mercosur blocs (Méndez-Parra et al., 2020). Because the analysis is based on aggregated tariff-line categories, it treats "farmers" as a uniform group and fails to capture how trade liberalization might affect different types of farms in divergent ways. The authors themselves acknowledge this methodological limitation,

[6] The GDyn model is a dynamic extension of the Global Trade Analysis Project (GTAP) computable general equilibrium (CGE) framework. Unlike the standard static GTAP model, GDyn incorporates intertemporal dynamics such as capital accumulation and investment behavior, allowing for the simulation of medium- to long-term economic adjustments to trade policy changes.

noting that their combined CGE and qualitative framework "did not allow us to look at specific products," as disaggregating ten sectors across four countries was deemed unmanageable. Consequently, such assessments leave the differentiated impacts on distinct farm structures essentially unexamined, providing a stylized overview that masks the uneven effects of trade policy across Europe's heterogeneous agricultural landscape.

Following the initial macro-level assessment, the Joint Research Centre (JRC) in February 2024 published a complementary analysis of ten upcoming trade agreements, including Mercosur, New Zealand, Chile, and Mexico, using the same computable general equilibrium model. While the report quantifies cumulative effects on trade, producer prices, and production volumes, it remains strictly sector-aggregated, examining changes across commodity groups like dairy, pigmeat, cereals, beef, poultry, sugar, and rice (Emanuele et al., 2024) . As such, it does not differentiate between diverse farm structures—small versus large holdings, family farms, corporate estates, or cooperatives—leaving unaddressed how these varied actors within each sector may experience the agreements differently.

Independent institutions have repeatedly criticized this governance gap. The European Court of Auditors (ECA) has highlighted CAP's failure to effectively target income support, noting that direct payment schemes primarily reward land ownership rather than farm resilience(European Court of Auditors, 2018). Other sources such as the IPES – Food7 add a deeper level of granularity, arguing that IN multiple instances that the CAP lacks mechanisms to distinguish between agribusinesses and mid-sized family farms, reinforcing systemic inequality and consolidation (De Schutter & Panel, 2019).

The failure to differentiate among producer types became especially evident during the EU Strategic Dialogue on the future of agriculture, where various small and medium farm groups advocated replacing area-based subsidies with targeted payments tied to economic viability, asserting that support should focus on "farmers who need it most"

[7] The GDyn model is a dynamic extension of the Global Trade Analysis Project (GTAP) computable general equilibrium (CGE) framework. Unlike the standard static GTAP model, GDyn incorporates intertemporal dynamics such as capital accumulation and investment behavior, allowing for the simulation of medium- to long-term economic adjustments to trade policy changes.

(European Parliament, 2024; TAPP Coalition, 2024; Table.Media, 2024; ARC2020, 2024). However, Copa-Cogeca, which describes itself as “the united voice of farmers and eu-cooperatives in the EU”, unequivocally resisted this shift, insisting that CAP funding must “maintain area-based direct support for all farms regardless of size and type.” This blanket approach overwhelmingly favors land-rich commercial and corporate farms, ensuring they continue to absorb the majority of subsidies. This case illustrates how the lack of differentiation among farmers translates into lobbying dominance by large agribusinesses and cooperatives, effectively sidelining the needs and interests of smaller, family-run farms and depriving them of platforms from which to be heard.

In order to analyze how these vulnerabilities operate and might be perpetuated in the future, we examine the EU–Mercosur Agreement, which serves as a currently pressing case study. It exemplifies the nature of EU trade policy in entrenching structural dependencies and holds the potential to further consolidate agribusiness dominance in European agricultural and food production.

Chapter 2 - The EU–Mercosur Agreement as a Catalyst of Agribusiness Dependency

Following the structural critique developed in Chapter 1 through the lens of Food Regime Theory, this chapter turns to the EU–Mercosur Agreement to examine how certain tariff lines related to raw and intermediate agricultural inputs may further entrench the vulnerabilities already identified within EU agricultural and food production. To do so, the analysis focuses on a set of key agricultural commodities, soybeans together with a set of cereals, maize, wheat, and rice, which have long been cultivated by non-industrialized, mid-sized family farms across the EU. In fact, over 93 % of EU farms are family-operated and average just 11 hectares a number that raises to 30 hectares in the case of cereal farming, underscoring the traditional family-farm basis of cereal cultivation (European Commission, 2023) (Franc et al., 2021). These crops are not chosen at random: they are essential inputs for many of the EU's most profitable processed food exports, yet they themselves are increasingly shaped by dependency-driven trade dynamics.

Unlike high-value processed foods products like wine, cheese, olive oil, chocolate, spirits, and dairy products…etc. which benefit from Geographical Indications and together represent approximately 74% of the EU's processed food export value, with processed foods overall accounting for 62% of total EU agri-food exports (European Commission, 2025b) Soybeans, maize, wheat, and rice tend to operate further down the value chain, serving as raw or intermediate goods for high-value processed foods. These crops underpin some of the largest categories of EU agri-food exports, including cereal preparations and milling products, mixed food preparation, confectionery and chocolate, dairy products, and pet and forage crops, (European Commission, 2025b).

Collectively, these categories represent more than 35% of the EU's total agri-food export value (European Commission, 2025b), underscoring the strategic importance of these staple crops in the EU's agro-industrial export model. This chapter examines how and why the EU–Mercosur Agreement accelerates existing structural patterns in agricultural trade.

Firstly, the chapter analyzes the EU–Mercosur Agreement's asymmetric trade model. While aligned with the EU's broader agri-food strategy of prioritizing high-value exports, the agreement simultaneously enables substantial liberalization of low-cost agricultural inputs, a shift that disproportionately benefits vertically integrated agribusinesses. Secondly, it examines how the agreement intensifies dependency on a narrow set of commodities such as soy, maize, wheat, and rice. Although soy falls outside the thesis' actor-level focd its growing import dependency renders it structurally significant. Given soy's centrality in livestock feed and processed food chains, its liberalization affects the broader architecture of food production and exacerbates trade imbalances that ultimately impact mid-sized farmers. Lastly, the chapter explores how the agreement contributes to the homogenization of agricultural actors and indirectly accelerates land concentration in the EU reshaping rural economies and agrarian structures.

2.1 Protecting high-value exports while liberalizing low-cost input flows.

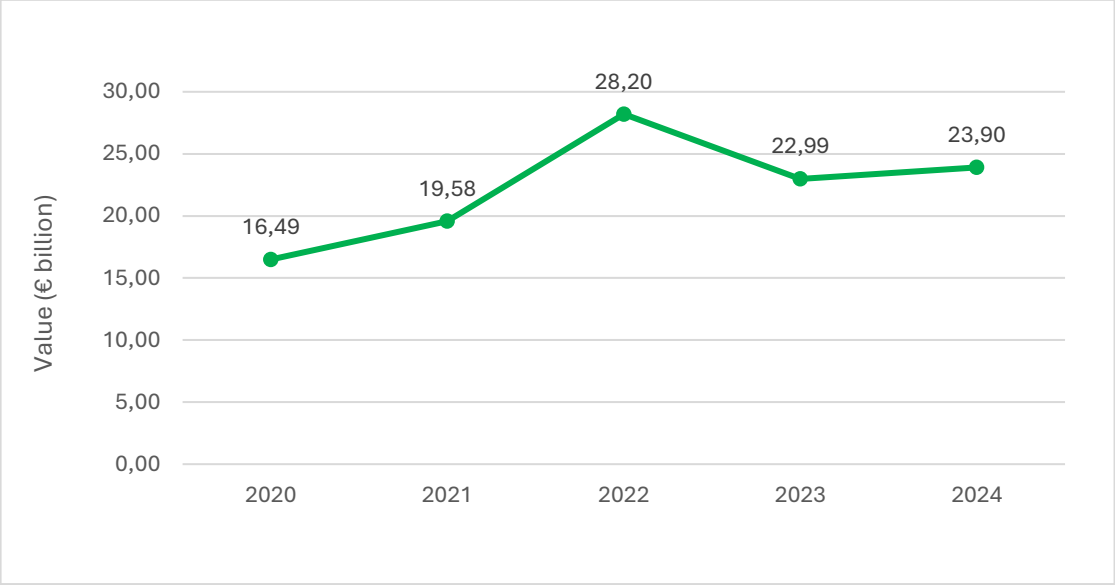
The EU–Mercosur Agreement, concluded in December 2024 after over two decades of negotiations and still pending ratification by the European Parliament, represents one of the EU's most ambitious trade agreements to date, not only with the Latin American region, but globally, covering a combined market of over 720 million people and approximately 25% of global GDP (European Commission, 2025). The agreement aims to eliminate tariffs on over 90% of goods traded between the EU and the Mercosur bloc—comprising Argentina, Brazil, Paraguay, and Uruguay, and to significantly deepen cooperation on sustainable development, technical standards, and investment protection, characteristics that are complementary to trade and that have become current amongst deep FTA'S (Laurens et al., 2024). Today, the EU is Mercosur's second-largest trade partner after China, accounting for nearly 20% of the bloc's commercial relations. Although Mercosur represents just 2% of total EU trade, the group has shown steady trade growth over the past decade, becoming an increasingly strategic partner.

Between 1998 and 2018, EU exports to Mercosur nearly doubled, while Mercosur exports to the EU increased by 2.3 times (Baltensperger & Dadush, 2019). As of 2024,

total goods trade between the two regions reached €110.3 billion, with EU exports amounting to €53.3 billion and imports from Mercosur totaling €57 billion (European Commission, 2025). The Sustainability Impact Assessment (SIA) conducted by the London School of Economics projects modest macroeconomic gains: a 0.1% increase in EU GDP (approximately €10.9–15.0 billion) and up to a 0.7% gain for Mercosur under more ambitious implementation scenarios (LSE, 2020). Despite limited aggregate growth expectations, the agreement holds significant potential for deeper long-term transformation especially in the agricultural and food production sectors, as FTA's nature makes them expand over time (Baltensperger & Dadush, 2019).

Agricultural trade flows are expected to experience disproportionate growth relative to other sectors, given their centrality in the EU–Mercosur relationship. In 2024, agri-food products accounted for 42.7% of Mercosur's total exports to the EU, equivalent to €24.3 billion, which translated to approximately 13.9% of the EU's total agri-food imports, making the EU one of Mercosur's most important export markets (European Commission, 2024). Notably, this import volume reflects a 44.9% increase compared to 2020 levels, highlighting the accelerating pace of trade integration and the growing structural reliance on Mercosur-origin inputs.

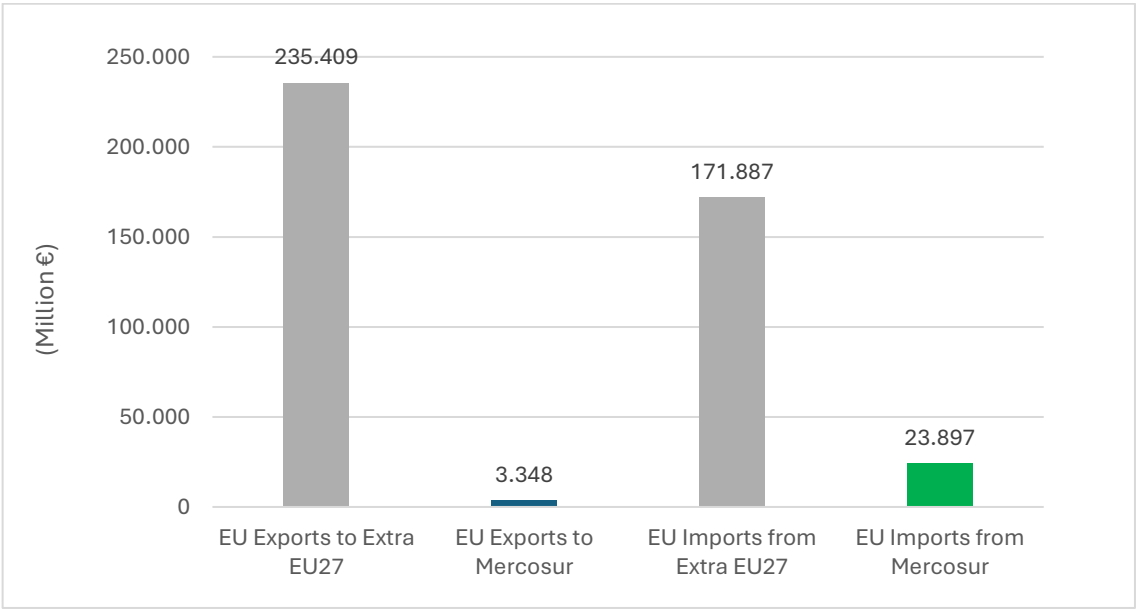
Figure 5. Evolution of EU Agri-Food Imports from Mercosur (2020-2024)



Source: European Commission (2024), *EU–Mercosur agri-food trade: Key facts and figures*

In contrast, EU agri-food exports to Mercosur amounted to just €3.35 billion, representing only 1.4% of the EU's total agri-food exports.

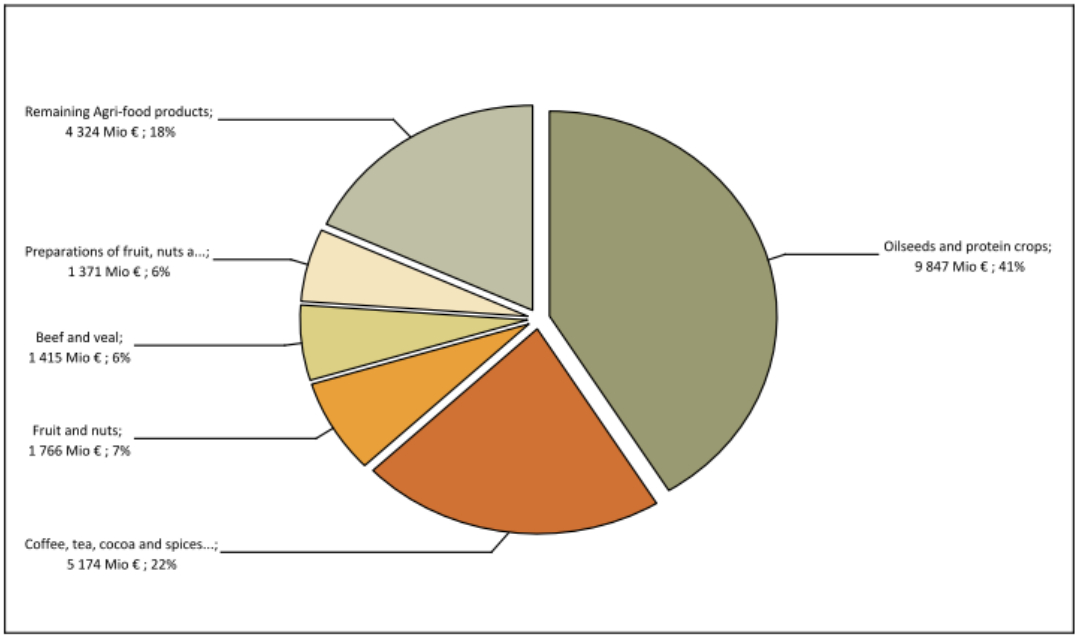
Figure 6. Comparison between EU Agri-Food Trade with Mercosur vs Total EU 27 (2024)



Source: European Commission (2024), *EU–Mercosur agri-food trade: Key facts and figures.*

This structural divide reflects the EU's broader agricultural trade model: Mercosur supplies raw and intermediate agricultural commodities, while the EU exports high-value, processed products. Mercosur is thus one of the EU's primary suppliers of strategic inputs such as protein crops (9.847 million, 41%), Cereals (1.084 million, 4%), and beef (1.415 million, 6%). Notably, Brazil alone provided 87% of the EU's soybean imports in 2024, underscoring the extent of input dependency on Mercosur-origin goods (Eurostat, 2025).

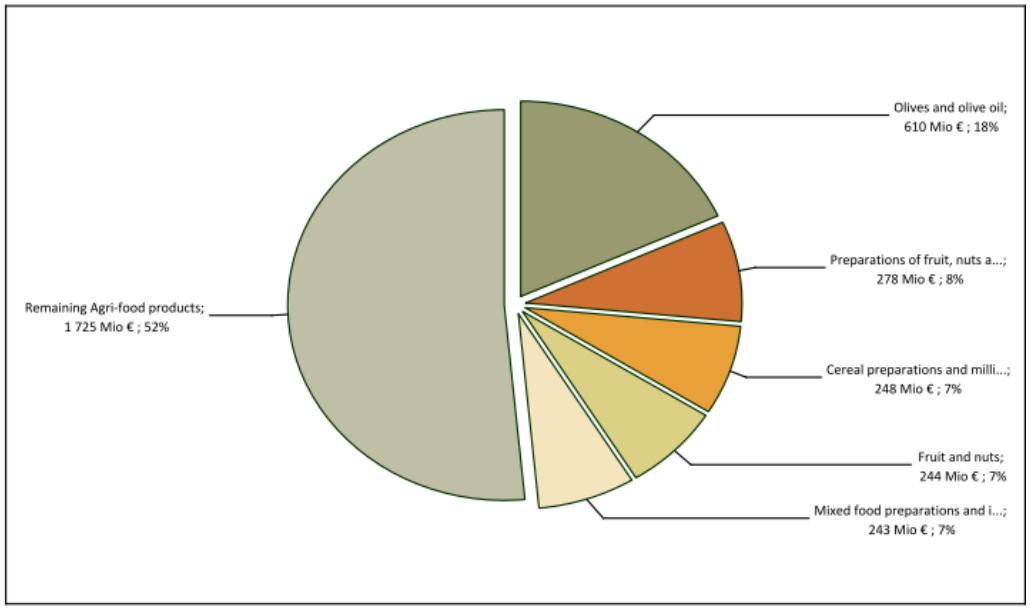
Figure 7. Tariff lines from EU Mercosur imports (2024)



Source: European Commission (2024), *EU 27 agri-food trade: Key facts and figures.*

Meanwhile, the EU's exports to Mercosur are composed primarily of processed products, including wine (€242 million, 7%), cereal preparations and milling products (€248 million, 7%), and mixed food preparations and ingredients (€243 million, 7%).

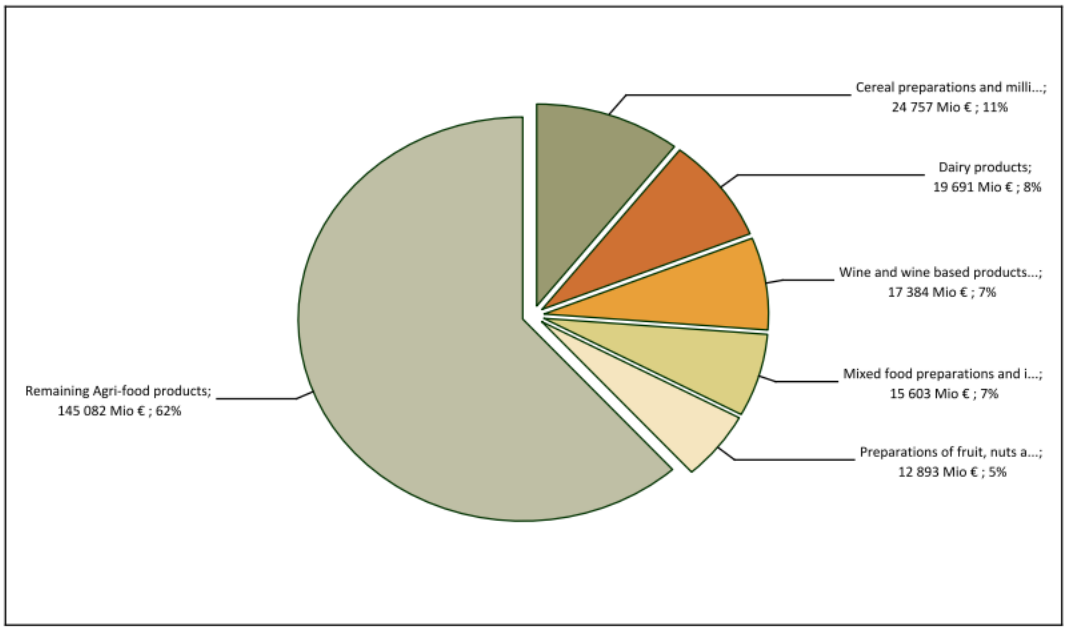
Figure 8. Tariff lines from EU Agri-Food exports to Mercosur (2024)



Source: European Commission (2024), *EU–Mercosur agri-food trade: Key facts and figures.*

Reframed through the lens of Food Regime Theory and the distinction between food security and food sovereignty, this pattern takes on deeper significance. Although raw commodity imports may appear less relevant in value terms, they play a foundational role in the production of higher-value exports that comprise the bulk of the EU's broader international agri-food export complex. Core commodities such as protein crops and cereals, maize, wheat, and rice, are used in the EU's most profitable export categories: cereal preparations and milling products (€24.757 billion, 11% of agri-food exports), dairy products (€19.691 billion, 8%), and mixed food preparations (€15.603 billion, 7%). In this sense, the EU–Mercosur agri-food relationship reproduces a system of input dependency that underpins the value-added dominance of European agribusiness exports (European Commission, 2025b).

Figure 9. Tariff lines from EU Agri-Food 27 total exports (2024



Source: (European Commission, 2025b) *EU agri-food trade: Key facts and figures.*

Despite Mercosur's structural surplus in raw agricultural commodities—inputs vital to the EU's agri-food export model, and the fact that EU exports to the region represent just 1.4% of total agri-food trade, mostly in industrially processed goods, official fact sheets still present the agreement as an "opportunity for all EU farmers." This framing ignores the limited benefits and potential risks it poses for mid-sized cereal family farms.

Furthermore, The JRC report on the cumulative effects of FTAs projects a 30.7% increase in agricultural imports from Mercosur (Emanuele et al., 2024). This rise is expected to benefit food processors and transnational commodity traders, while depressing EU commodity prices, disproportionately affecting small and mid-sized farmers with limited scale and market power. To ease political resistance, the EU–Mercosur Agreement includes Tariff Rate Quotas (TRQs), described by (Laurens et al., 2024) as flanking mechanisms aimed at protecting sensitive sectors in hopes of facilitating ratification.

Table 1. Key Tariff Reductions and Quotas in the EU–Mercosur Agreement

Product	***Tariff/Quota Details***	***EU Import Volume (2023)***	***Share of EU Consumption***
Beef	99,000 tonnes at 7.5% tariff, phased over 5 years	196,000 tonnes	1.6%
Poultry	180,000 tonnes duty-free, phased over 5 years	294,000 tonnes	1.4%
Rice	60,000 tonnes duty-free, phased over 5 years	211,000 tonnes	7.4% (2.9M tonnes total)
Soybean Meal	Zero tariffs	18.5 million tonnes (2019)	85.24% (Brazil + Argentina)
Maize	1,000,000 tonnes duty-free quota, phased over 5 years	19.65 million tonnes	1.35%

Sources: European Commission (2025), DatamarNews (2024), Fediol (2019), Reuters (2024).

However, a closer examination of the agreement reveals a notable pattern: while sensitive sectors such as beef and poultry are subject to relatively strict Tariff Rate Quotas (TRQs), critical commodities like soy and the increasingly strategic case of maize, both of which represent a growing share of EU agricultural input consumption, are afforded more liberal access. These products, which are also closely linked to environmental degradation, face fewer protective restrictions. Moreover, the environmental provisions accompanying these tariff lines have been criticized for their weak enforceability. The European Court of Auditors has raised concerns over their effectiveness, and the delayed implementation of the EU Deforestation Regulation further underscores the fragility of these safeguards.

Unlike most EU FTAs, which phase out tariffs across broad categories (e.g., the EU–Japan deal liberalized ~85% of agri-food lines), the EU, Mercosur Agreement takes a targeted approach. It directly removes duties on specific commodities like soybeans, maize, oilseeds, and soybean oil, which are essential to the EU's processed food and livestock sectors. These inputs are also highly concentrated in global supply chains, with 85% of soy and between 50–70% of maize and wheat traded by less than a handful of companies, namely ADM, Bunge, Cargill, and Louis Dreyfus (Wion et al., 2024a).

By further lowering tariffs on these goods, the agreement deepens both crop and corporate dependency. This increases exposure to global market shocks, places mid-sized EU farms under greater price pressure, and undermines regional autonomy in food system development, a dynamic particularly evident in the EU's delayed efforts to scale domestic protein alternatives.

The following section analyzes the potential effects of tariff liberalization on soy, maize, wheat, and rice on middle size farmers, focusing on current import and production level and share, land ownership structures and self-sufficiency ratios.

2.2 Tariff line analysis

2.2 Soy

The latest Joint Research Centre (JRC) report on protein dependency (2024) reveals that the EU imports approximately 96% of its soybeans, which represent around 85% of the vegetable protein feed market (European Commission, Joint Research Centre, 2024). This equates to roughly 15 million tonnes of soybeans and 18 million tonnes of soybean meal annually. These imports, sourced predominantly from geographically concentrated supply chains with lower labor and environmental standards, enable European livestock and dairy sectors to maintain profitability by minimizing input costs and maximizing economies of scale. However, this structural reliance poses risks that extend beyond exposure to geopolitical disruptions or price volatility. At its core, the overdependence on a corporately concentrated crop undermines regional autonomy by limiting the EU's ability to steer agricultural and food production systems in a direction aligned with sustainability, equity, and strategic self-sufficiency.

Despite a series of policy signals including the 2017 European Soya Declaration, the 2018 European Parliament resolution on protein strategy (European, 2018), and subsequent integration into the Farm to Fork and Green Deal frameworks, the EU has yet to adopt a binding protein strategy or define concrete production targets. Although CAP eco-schemes and coupled payments include support for protein crops in some national plans, only a limited number of Member States have implemented dedicated programs. Financial commitment also remains minimal, with current funding levels at approximately €12 million annually, far below the €50 million estimated as necessary to scale domestic production (EPRS, 2023). Beyond underinvestment, a combination of regulatory inertia, economic risk aversion, weak value chains, and climate-induced yield variability continues to hinder meaningful progress. As a result, EU soybean self-sufficiency remains stagnant at around 5%, underscoring the persistent gap between policy ambition and production realities (Loi & others, 2024).

These shortcomings are compounded by persistent regulatory double standards. While the EU bans domestic GMO cultivation and mandates traceability and labelling for GMO crops, it continues to import large volumes of GMO soy for animal feed. Although food

derived from GMO soy must be traceable and tested, adding 10–15% in costs, animal products like milk or meat from livestock fed on such feed require no GMO labelling. This regulatory asymmetry lowers the market price of GMO soy, incentivizing its use in livestock production while keeping consumers uninformed.

This influx of cheap, high-protein imports has effectively marginalized mid-sized cereal and legume farmers. Though difficult to quantify, the decline of these farms has dismantled crop rotation systems that could have advanced domestic protein autonomy. Rather than fostering integrated cereal–legume rotations with environmental and supply benefits, current policies have entrenched monocultural cereal systems, rendering EU agriculture increasingly vulnerable and one-dimensional.

In sum, the EU's reliance on low-cost, GMO-based protein imports has weakened prospects for a resilient, autonomous protein strategy. It has stalled mid-scale farm diversification, entrenched structural dependency, and sidelined the most viable path toward self-reliance: legume–cereal rotations anchored in mid-sized farming systems.

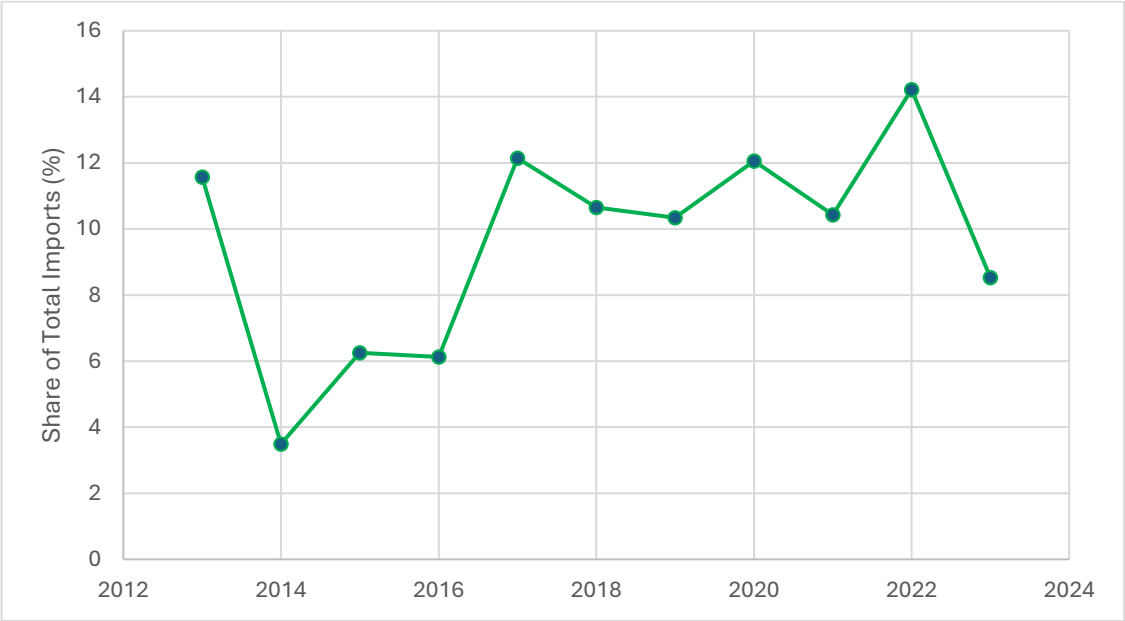
2.3 Maize

As the EU's second most extensively cultivated cereal, maize is a critical input for the livestock, food processing, and increasingly, the biogas sectors (FAO, 2023; DG AGRI, 2022). Under the EU–Mercosur Agreement, a Tariff Rate Quota (TRQ) of one million tonnes, equivalent to 1.35% of current EU production, has been introduced. This tariff-free allocation appears aimed at securing supply for sensitive and emerging sectors such as livestock and bioenergy. Although the EU maintains an-81% self-sufficiency ratio[8] in maize, its production remains vulnerable to external shocks. The combined impact of COVID-19, severe droughts, and the war in Ukraine has disrupted output. In 2022, EU feed grain consumption dropped by 5%, and the biogas/biomethane sector, following a decade of growth, stagnated. A 24% decline in maize production due to climatic

[8] The self-sufficiency ratio is the proportion of domestic production to total domestic supply (production plus imports minus exports), typically expressed as a percentage. It measures the extent to which a country can meet its own needs without relying on imports.

extremes triggered a significant rise in imports, mainly from Brazil, highlighting the EU's growing reliance on competitively priced Mercosur maize.

Figure 11. Mercosur Share of EU Maize Imports – 27 Countries

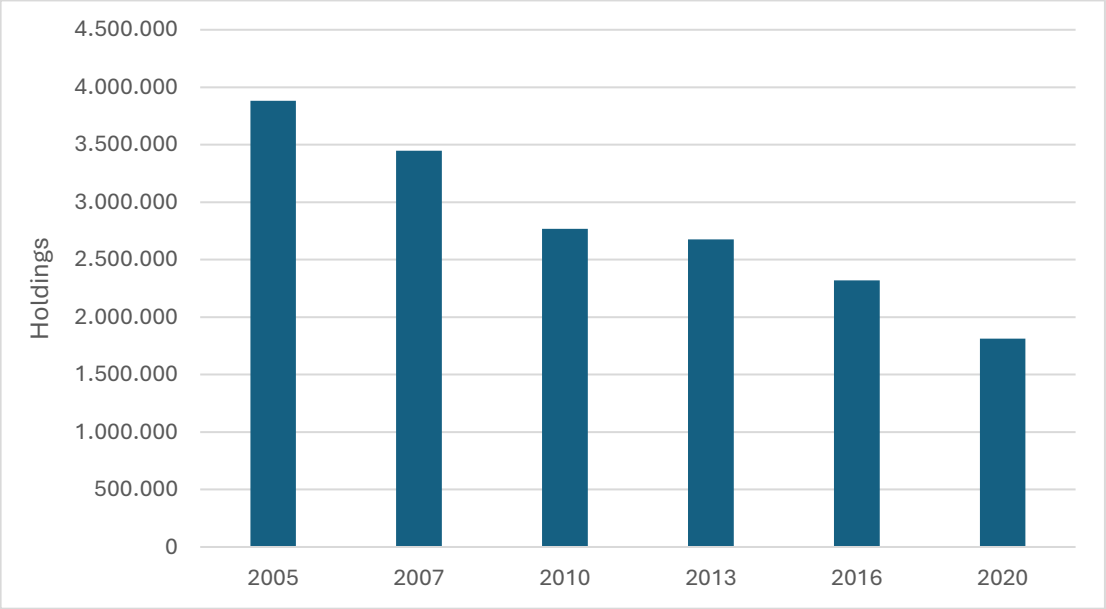


Source: (*UN Comtrade*, n.d.)

This trade-driven expansion of maize imports is tightly connected to monocrop dominance and land consolidation in Mercosur. For example, farms in Mato Grosso may exceed 500,000 ha, double the size of Luxembourg, enabling substantial economies of scale (CEPM, 2020). Moreover, these operations largely depend on genetically modified maize and intensive use of plant protection products containing active substances that have long been banned in Europe, such as atrazine and paraquat (PAN Europe, 2023). Such production models place competitive pressure on EU farms, where compliance costs, environmental regulations, and climate volatility make scale and cost-efficiency indispensable.

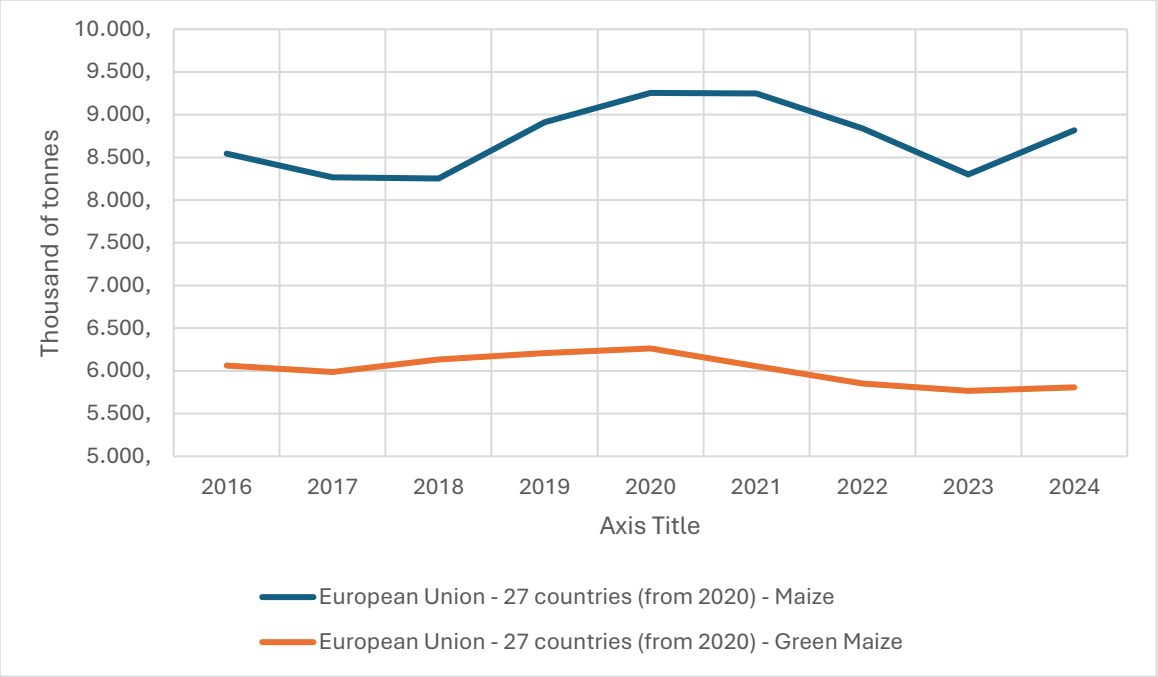
Liberalized trade, combined with production constraints such as rising input prices and stricter environmental regulations, has accelerated land consolidation in maize production. EU agribusinesses have responded by scaling up operations, leveraging per-hectare payments under the CAP to make maize profitable at larger scales, often absorbing smaller farmers in the process. For instance, yield increases reported in 2020 occurred alongside declining farm ownership, signaling structural consolidation within the sector.

Figure 12. Evolution of Maize farms in the European Union – 27 Countries



Source: (Eurostat, 2025d)

Figure 13. Evolution of Maize production in the European Union – 27 Countries



Source: (Eurostat, 2025c)

Policy incentives for biogas have significantly reshaped maize cultivation patterns in Europe, particularly in Germany. The 2000 Renewable Energy Law (EEG) triggered a sharp increase in silage maize, with cultivated area rising from 1.5 to 2.7 million hectares by 2020 (Miedaner & Juroszek, 2021). In northwestern Germany alone, maize area increased by 67% between 2005 and 2011 (Stein et al., 2019). By 2013, bioenergy crops covered 12.6% of total agricultural land, with maize for biogas accounting for nearly 800,000 hectares. In some municipalities, maize silage made up over one-third of all farmlands. The spatial clustering of biogas plants further encouraged monoculture by lowering transport costs (Yang et al., 2021).

This expansion came at the expense of crop rotations, which were displaced even on premium soils once used for wheat or sugar beets. Today, maize occupies nearly 20% of Germany's arable land, reflecting its growing centrality to food, feed, and energy systems. This trend is not confined to Germany. Between 1993 and 2017, maize cultivation expanded in over 330 European regions, with some areas reporting growth exceeding 2800% (Yang et al., 2021).

Eastern Europe, particularly Ukraine, has become a major contributor to this growth. Annual output in the region rose from 6 to 42 million tonnes, with Ukraine alone producing nearly 27 million tonnes, almost double France's output. This increase is attributed to larger land areas, more efficient fertilizer use, and improved grain varieties ((Pinke et al., 2022)

As maize becomes increasingly embedded in the EU's food–energy–environment nexus, its role has evolved from a traditional, family-farmed crop to a strategic commodity underpinning industrial agriculture. This transformation exacerbates land concentration and disadvantages mid-sized producers, who struggle to compete with the economies of scale, regulatory flexibility, and market access available to large agribusinesses. Combined with trade liberalization favoring GMO-intensive production in Mercosur, the viability of emerging sectors may be ensured, but at the cost of mid-sized cereal farms exitingthe agricultural landscape.

2.4 Wheat

The EU currently holds a wheat self-sufficiency ratio of approximately 120%, according to the Report on the Activities of the Group of Experts on the European Food Security Crisis Preparedness and Response Mechanism (EFSCM, 2023). Wheat is the most widely grown crop in the EU and one of its top export commodities. Consequently, it is not viewed as an immediate vulnerability under the EU–Mercosur Agreement, which eliminates tariffs on wheat. However, this perception overlooks deeper structural risks. When combined with climate volatility, geopolitical shocks, stagnant productivity, and accelerating land consolidation, the agreement could generate severe repercussions, particularly for mid-sized cereal farms.

(Krzyzanowski, 2025) highlights how the agreement may trigger trade flow shifts via substitution effects in supply and demand. Although EU border protections for cereals have been less significant in recent years due to high global prices, they remain vital during price downturns, especially for medium- and low-quality wheat. Such protection is provided by a variable import duty mechanism under Commission Regulation (EU) No. 642/2010 (European Commission, 2010) which adjusts duties based on the gap between

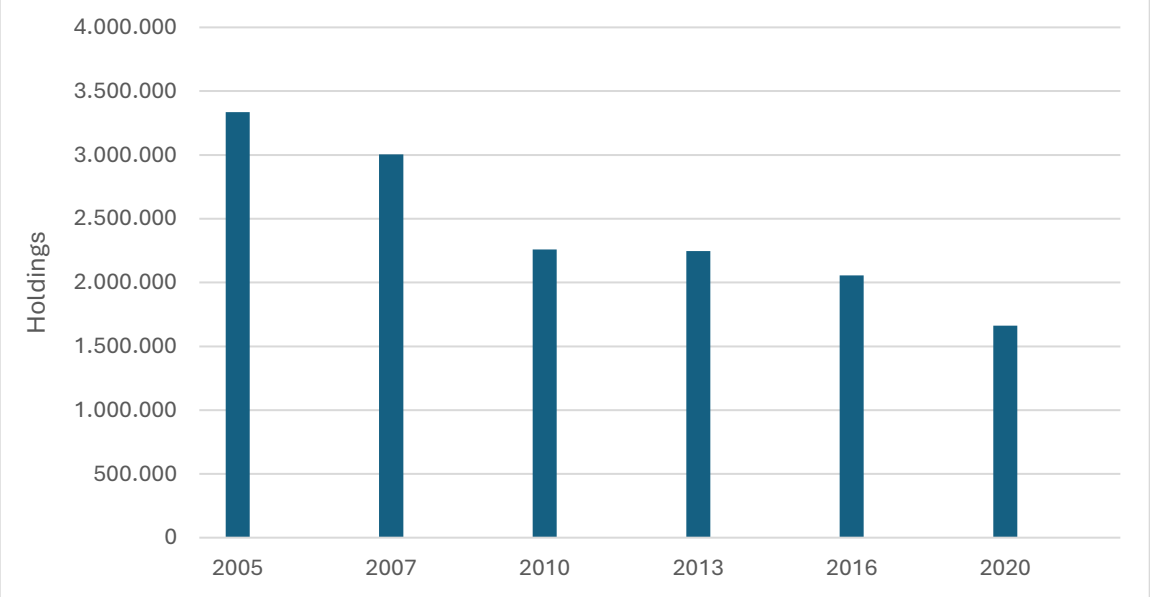
a fixed reference price and global CIF prices. This automatic system updated bi-monthly, buffers domestic producers from price volatility. However, countries with preferential agreements, such as Mercosur members, are exempt from this mechanism, leaving EU producers, especially mid-sized ones, exposed to external price shocks.

Despite the EU's wheat self-sufficiency, the block does not operate in autarky. Soft wheat, used for bread, feed, and industrial processing, makes up a significant share of the EU's output, approximately 143 million tonnes annually, while durum wheat is used primarily for pasta (Kelly, 2019). Even with domestic sufficiency, imports persist in accessing specific varieties or reducing costs, driven largely by processors. This reveals a persistent policy flaw discussed in Chapter 1: the conflation of farming (crop production) with food production (processing), which masks structural dependencies on external supply.

For example, over 4 million tonnes of Ukrainian wheat entered the EU between July 2024 and mid-2025. Following farmer protests, the European Commission reinstated pre-war tariff quotas on June 6, 2025, capping Ukrainian wheat at one million tonnes annually. This has set a precedent for the sustained availability of cheaper wheat on EU markets, reinforcing the structural prioritization of processing industry needs over producer resilience. The expiration of the EU–Ukraine preferential agreement on June 5, 2025, adds further uncertainty. As processors seek alternative suppliers, Mercosur exporters, particularly Brazil and Argentina, are well-positioned to benefit. Both countries have expanded wheat production through state-supported programs, with Brazil leveraging public-private initiatives to increase yields and access new markets, including the EU (Klein [& Vidal Luna, 2024).

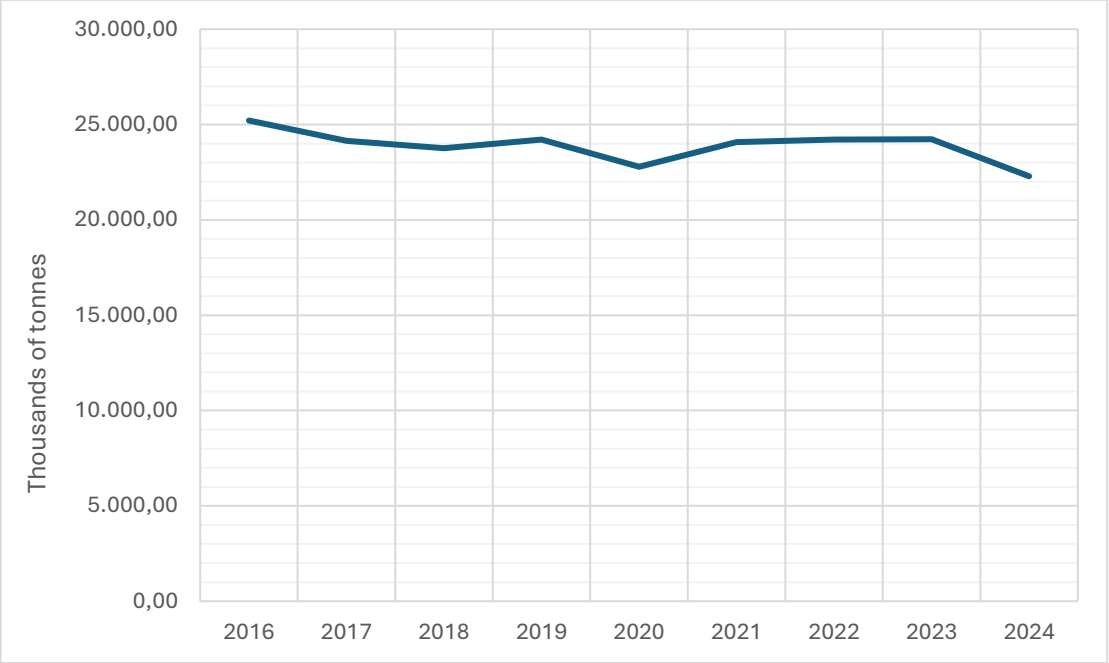
Climate shocks, rising input costs, and liberalized trade have intensified land consolidation trends across the EU cereal sector. Between 2021 and 2025, cereal yields suffered from environmental extremes. In 2022, Spain and Portugal endured the worst drought in 500 years. France saw yield losses of up to 40% in 2024 due to record rainfall. Spring droughts in 2025 further stressed crops in Northwest Europe. Simultaneously, fertilizer costs surged urea nearly doubled from $483/ton in 2021 to $850/ton in 2022.Further eroding margins. These pressures have forced many smaller farms to exit the market, accelerating consolidation.

Figure 14. Evolution of Wheat farms in the European Union – 27 Countries



Source: (Eurostat, 2025d)

Figure 15. Evolution of Wheat farms in the European Union – 27 Countries



Source: Eurostat (Eurostat, 2025c)

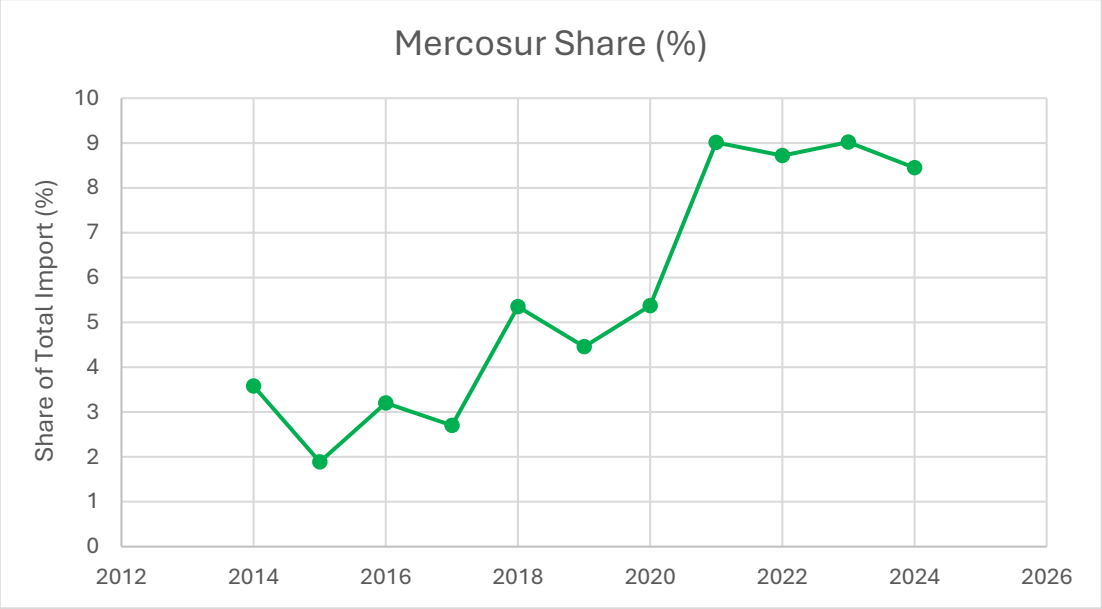
2.5 Rice

The EU–Mercosur Agreement grants a tariff-rate quota of 60,000 tonnes of rice, allowing this volume to enter the EU market duty-free, with tariffs gradually phased out over a five-year period. Although this quota may appear limited in absolute terms, its significance becomes clear when placed within the broader trade context. In 2023 alone, the EU imported approximately 211,000 tonnes of rice from Mercosur countries, surpassing the proposed quota nearly fourfold. This volume represented 11% of the EU's total rice imports (1.93 million tonnes) and approximately 7.3% of overall EU rice consumption, which stood at 2.9 million tonnes. Crucially, both figures have exhibited consistent growth over recent years, indicating a structural trend rather than a temporary fluctuation.

A more granular analysis of tariff line 1006 (Rice) covering the full spectrum of rice categories, reveals a sustained increase in the import share of Mercosur-origin rice, reaching 7.9% in 2023. This upward trajectory aligns with expanding production capacities across Mercosur countries, as documented by the FAO in its 2025 regional

output assessments (FAO), 2024). These data suggest that Mercosur rice is not only increasingly competitive but also well-positioned to further penetrate the EU market once tariff reductions take full effect. In this context, even a seemingly modest quota could reinforce dependency trends and introduce greater exposure for EU rice producers to competition.

Figure 16. Mercosur Share of EU Rice Imports – 27 Countries

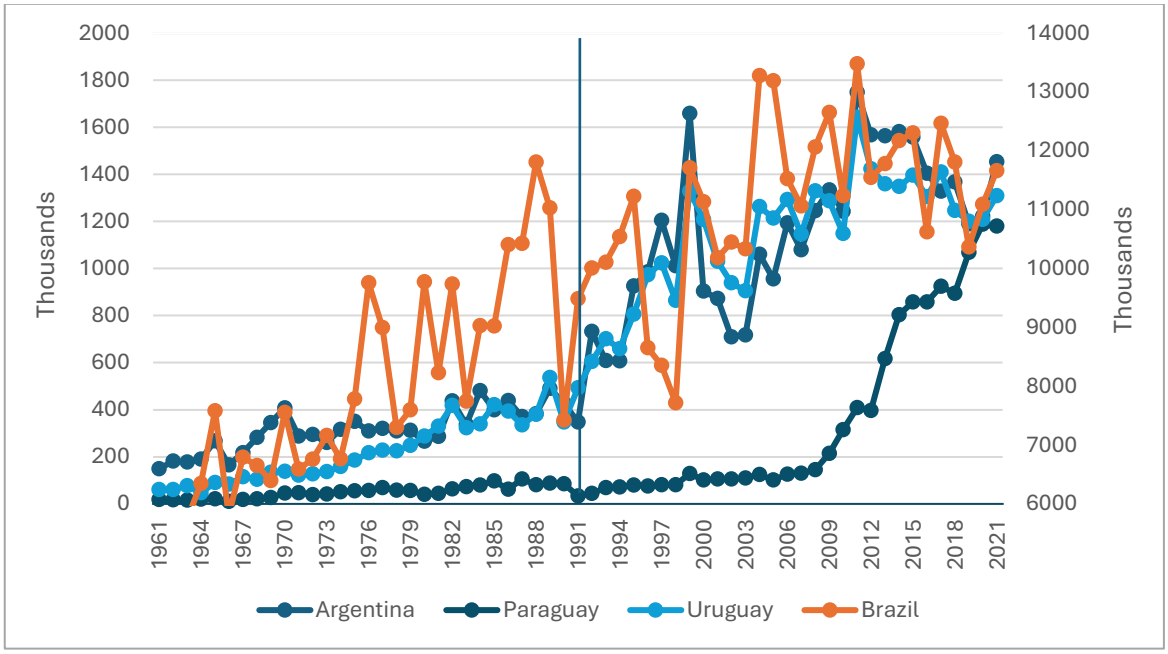


Source: (*UN Comtrade*, n.d.)

In essence the introduction of the new TRQ establishes a predictable, partial duty-free access to approximately 30 % of Mercosur rice imports in 2024. This quota does more than formalize past trends; it actively incentivizes further market liberalization. Over the past decade, rice imports from Mercosur have steadily risen due to expanding production capacities and export strategies in partner countries. By embedding this TRQ into the agreement, the EU is not merely reacting, it is structurally enabling a continued increase, fundamentally reshaping EU rice trade dynamics in favor of Mercosur suppliers.

According to FAO statistical data, rice production across Mercosur countries has followed an upward trend since 1961, with a notable structural break in 1991 following Mercosur's formation.

Figure 17. Mercosur Rice production – 4 Countries



Source: (FAO, 2023)

The graph uses a separate axis for Brazil, the largest producer, to allow comparison without distorting the trends in smaller countries.

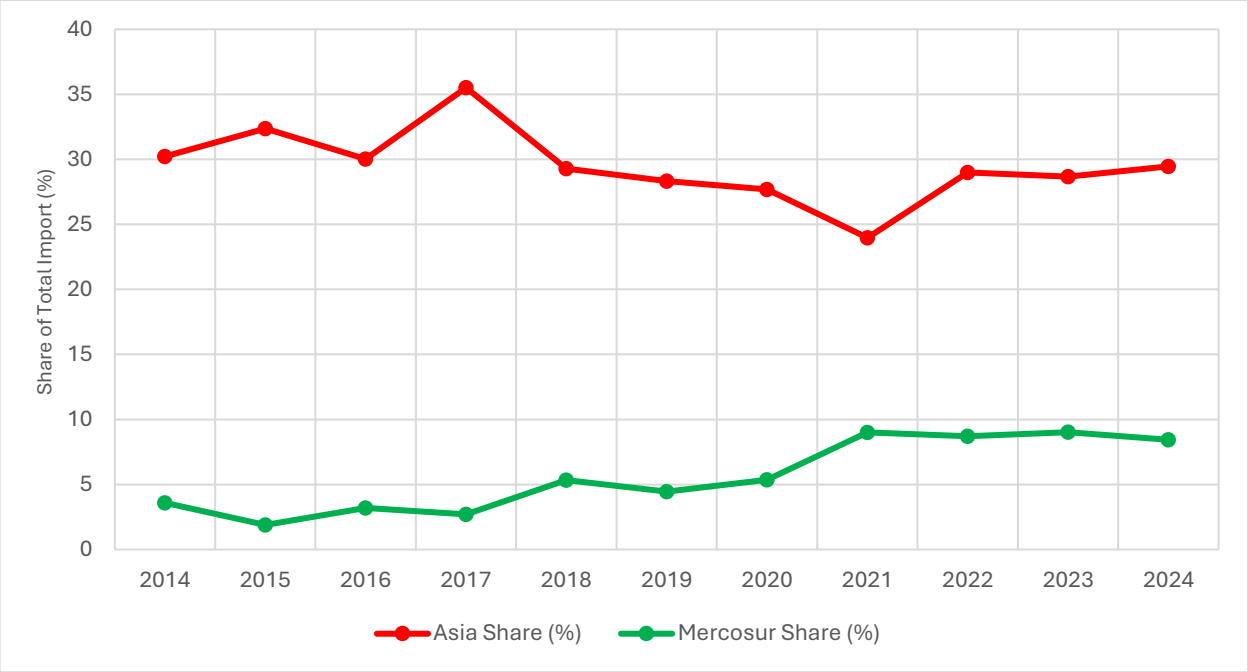
The consequences for domestic producers are stark. The EU's rice self-sufficiency ratio has now dropped to around 60 %, driven by multiple interconnected pressures: input cost inflation, with fertilizers, energy, and labor rising as much as 44 % since 2019; stricter environmental regulations, such as pesticide residue limits tightened to 0.01 mg/kg for compounds like tricyclazole and chlorpyrifos; climate-induced yield variability; and trade liberalization (CITATION). These stresses disproportionately affect rice farmers in Spain, Italy, and Portugal, sectors historically supported by irrigation subsidies and rural development policies.

Trade data from recent years reveal an empirical shift in rice suppliers, triggered by liberalization measures such as the Everything But Arms (EBA) initiative and the subsequent introduction of safeguard tariffs. The EBA, which granted duty- and quota-free access to rice exports from Least Developed Countries, primarily Cambodia and

Myanmar, led to an 89% surge in imports over five seasons. As a result, the domestic share of EU rice consumption plummeted from 61% to just 29%.

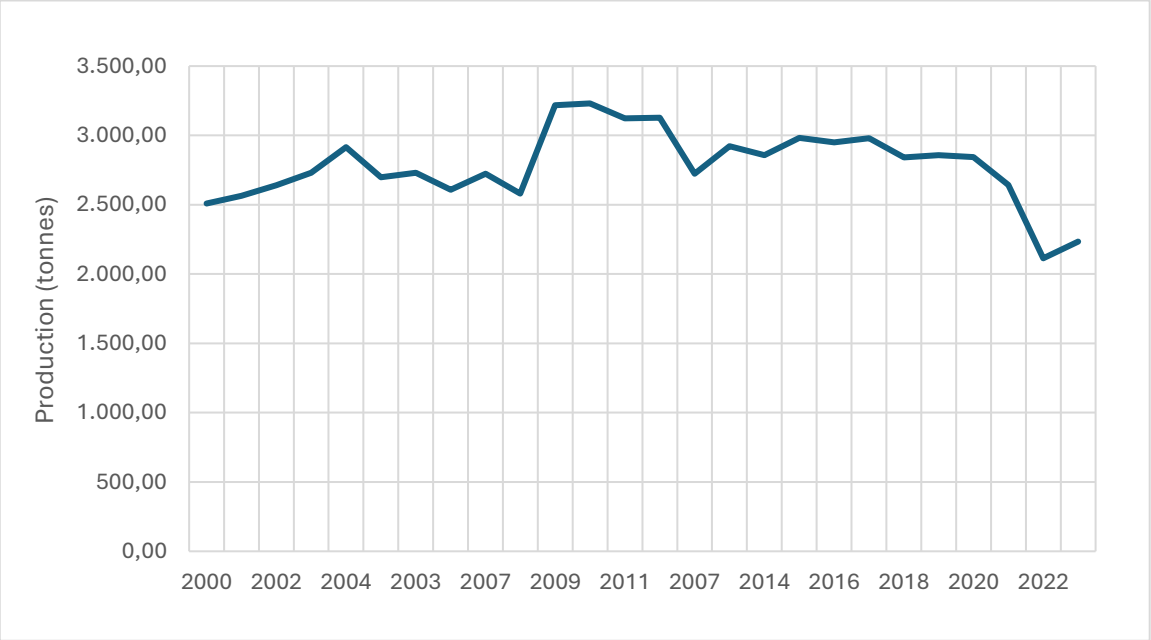
In response, the EU implemented a temporary safeguard tariff of €175/ton in 2019. However, rather than curbing import volumes or revitalizing EU rice production, the tariff merely redirected trade flows toward Mercosur suppliers (see Figure 17). The introduction of this tariff coincided with severe droughts in Spain—the EU's second-largest rice producer—further compounding production challenges. This adjustment failed to reverse the sector's decline, particularly under ongoing climatic stress. Between 2005 and 2020, mid-sized rice farms contracted by 17%, highlighting a broader pattern of sectoral retrenchment and vulnerability among non-integrated producers.

Figure 17. EU Rice Imports by Region (2014-2023)



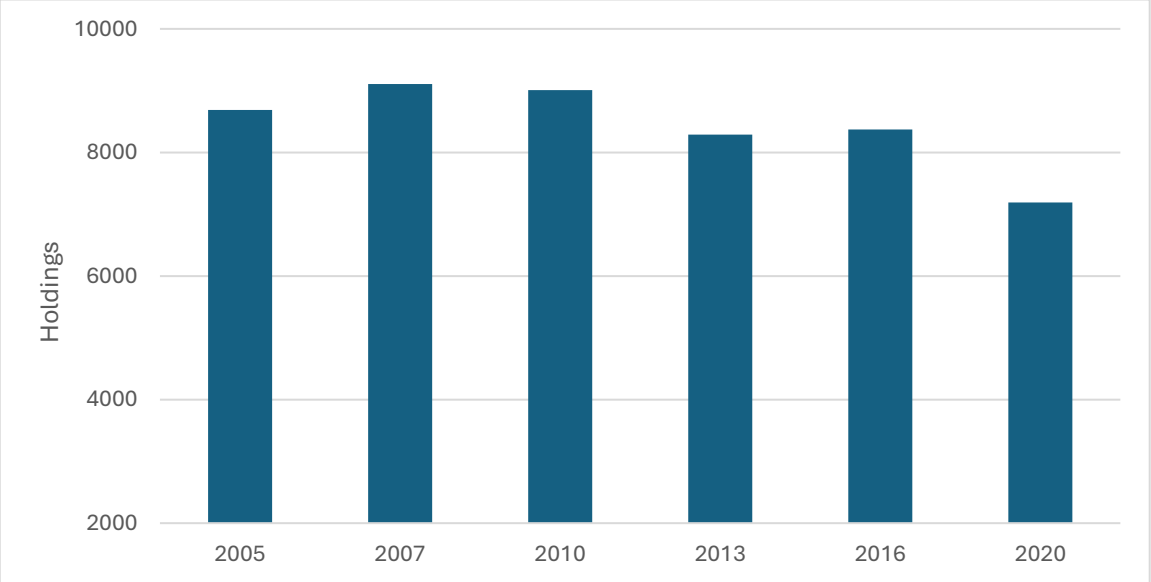
Source: (*UN Comtrade*, n.d.)

Figure 18. EU Rice Production – 27 Countries



Source: (Eurostat, 2025c)

Figure 19. Number of EU Rice Farms – 27 Countries



Source: (Eurostat, 2025d)

Ultimately, many rice farmers, especially in southern Europe, have been compelled to abandon cultivation or switch to higher-margin crops. This transformation has profound implications for regional land-use strategies and water management policies, as rice has

traditionally held priority in irrigation allocation due to its ecological and cultural significance. In this context, the EU–Mercosur Agreement acts as the final, structural accelerator of a sector already under severe duress.

2.3 The Mercosur agreement, an indirect cause for land consolidation in the EU.

The cumulative effect of bilateral FTAs structurally advantages capital-intensive, processed-product segments over primary, input-dependent sectors. As exposed in the JRC study on the cumulative impact of FTAs (Emanuele et al., 2024) impact assessments demonstrate that agreements such as the EU–South Korea and EU–Canada FTAs have delivered starkly disproportionate gains: cheese exports to South Korea surged by 246%, and chocolate exports to Canada grew by 84%. These figures reflect the capacity of high-value sectors to capture FTA benefits.

In contrast, primary production, particularly cereals and feed grain, faces mounting pressures. The JRC simulations indicate that cumulative FTA scenarios may reduce EU cereal output by 1.5% to 3.2%, with producers experiencing price declines between €2.6 and €4.8 per tonne. Given the structure of current trade flows between the EU and Mercosur countries, it is reasonable to anticipate that the EU–Mercosur Agreement will similarly result in lower agricultural commodity prices, especially for cereals, thereby eroding input autonomy and weakening systemic resilience

This growing strain on EU cereal producers coincides with broader structural and environmental constraints. (Kelly, 2019) highlights that cereal yield growth has plateaued in several regions, hindered by land degradation, water scarcity, and compliance with stricter pesticide and eco-scheme regulations. In some Member States, productivity advances have fallen below 0.5% annually, a trend rooted in land consolidation.

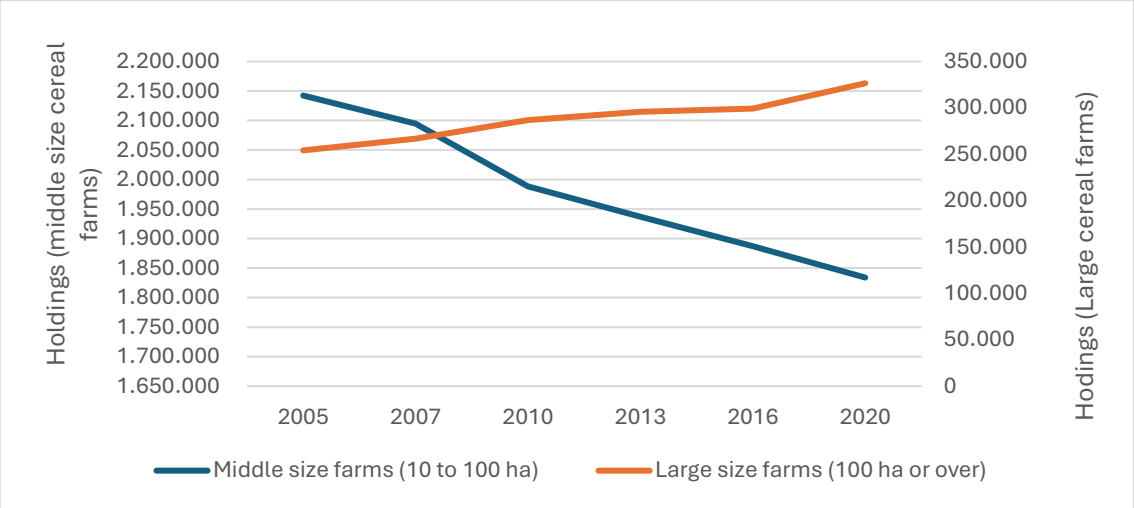
Additionally, rising input costs, particularly for energy and fertilizers, have further squeezed farm margins. These pressures disproportionately impact small and mid-sized cereal farms, which lack the scale to absorb shocks or finance necessary compliance investments. Since CAP per-hectare payments apply uniformly, larger holdings benefit

disproportionately. This accelerates land concentration, especially in "intermediate zones"[9] where mid-sized farms struggle to sustain viability.

As competitive pressures both internally and internationally mount, scale becomes the only viable buffer. However, this reinforces a vicious cycle: lower profitability discourages innovation among smaller producers, prompting them to adopt conservative practices to survive. This, in turn, reduces the likelihood of productivity-boosting breakthroughs and perpetuates reliance on scale and imports (Finco et al., 2021).

This dynamic allows large farms to absorb smaller ones, deepening structural imbalances. If proposed CAP cuts materialize, cereal and oilseed producers could see incomes fall by up to 10%, further incentivizing consolidations (European Commission, 2023).Correspondingly, from 2005 to 2024, mid-sized cereal farms (10–100 ha) declined by 17%, while holdings over 100 ha grew by 22%, particularly in cereal-intensive regions, underscoring the systemic marginalization of mid-scale agriculture.

Figure 20. Evolution of farm holdings EU cereal farms by size – 27 Countries



Source: (Eurostat, 2025a)

[9] In EU policy terms, "intermediate zones" refer to areas between urban and remote rural regions, often including small towns and surrounding farmland. In France's Centre-Val de Loire, an OECD-classified intermediate region, average farm size is about 100 ha, with cereal production increasingly dominated by large holdings—squeezing mid-sized farms under consolidation pressure.

Chapter 3 – Consequences of Middle Size Cereal farm reduction in the EU

Following the structural analysis of EU agricultural policy through the lens of Food Regime Theory (Chapter 1) and the trade architecture underpinning the EU–Mercosur Agreement that reinforces reliance on foundational inputs (Chapter 2), this chapter shifts the focus to a key outcome of these dynamics: the progressive disappearance of mid-sized cereal farmers. Rather than an isolated consequence, this erosion is both a symptom and a driver of deeper structural change. It accelerates land consolidation, undermines the viability of diversified farm structures, and weakens the overall resilience of the European food system.

Within the framework of Food Regime Theory (FRT), mid-sized farmers embody the class of the "losers" of the corporate regime, producers structurally disadvantaged by liberalized, input-intensive, and export-oriented models. Yet their disappearance cannot be framed solely as a zero-sum outcome. As recent research highlights (Lowder et al., 2019; Rossi, 2022), mid-sized family farms serve critical functions that extend beyond production metrics. These farms often prioritize intergenerational continuity, land stewardship, and embeddedness within rural economies. They operate with a forward-looking ethos that favor resilience, multifunctionality, and community stability.

Their decline produces negative externalities that transcend agriculture itself. This chapter analyzes these impacts across three interrelated domains: Agricultural and food production, rural socio-demographic cohesion, and environmental sustainability.

3.1 Agricultural and food production fragility

The disappearance of mid-sized cereal farms significantly weakens the EU's ability to produce a diverse range of essential food staples domestically and undermines the resilience of the agri-food supply chain. As these farms vanish, cereal production becomes increasingly concentrated in the hands of large agribusinesses and limited to fewer regions. This spatial and structural consolidation is not neutral, as a narrowing of the productive base heightens exposure to shocks. Incentivized by efficiency and mechanization. large scale actors tend to favor monocultures over biodiversity. Despite

their scale, per-hectare yields have stagnated in several areas, intensifying the pressure to specialize in a narrow set of high-output crops. In favorable climatic zones, these actors often absorb smaller farmers and repurpose cereal lands for export-oriented products with higher margins. Portugal exemplifies this trend: cereal production has declined by 77% since the 1990s, and the self-sufficiency rate dropped from 39% in 1993 to just 18% in 2023, largely due to the expansion of crops like olives and avocados. Today, Portugal imports over four-fifths of its cereals, a stark indicator of eroded autonomy in staple grain production (Almeida, 2020).

Beyond import dependency because of crop change, the disappearance of mid-sized cereal farms contributes to a deeper, often underestimated dynamic: systemic homogenization. Historically, mid-sized family farms cultivated a range of cereal crops, including wheat, barley, rye, oats, and maize, often through rotations incorporating legumes or cover crops. These practices supported agroecological balance, maintained genetic diversity, and enhanced climate adaptability. With the decline of these farms, however, regionally adapted varieties have increasingly been replaced by standardized, high-yield hybrids designed for industrial monocultures. This shift has narrowed the genetic base of European cereal production, heightening vulnerability to pests, diseases, and climate variability (Schuh & others, 2022). Portugal provides a compelling example: traditional grain varieties such as *Pirana*, *Barbela*, and *Da Terra* have been almost entirely supplanted by commercial seed lines selected for uniformity and mechanization (Dinis et al., 2025). While EU policymakers have acknowledged the strategic value of local cereal varieties and initiated support measures to relaunch them, such efforts lack scalability in the absence of a resilient network of mid-sized farms capable of adopting, multiplying, and diffusing these seeds.

Concurrently, the erosion of farmer-led cooperatives and informal seed exchanges has enabled the consolidation of the seed market. Today, five companies control approximately 95% of the EU's vegetable seed supply, while three multinational firms dominate close to 60% of all patented seed lines globally (Wang et al., 2025). Even in Europe, where the use of genetically modified crops is restricted, this concentration promotes varietal uniformity across cereal production systems (Gawdiya et al., 2025).

Though this model may yield short-term efficiencies, it systematically undermines the sector's adaptive capacity. Mid-sized farms have traditionally served as a buffer against such fragility, sustaining on-farm seed diversity and maintaining regionally adapted strains through embedded, place-specific knowledge systems. Their disappearance signals a broader transition from culturally and ecologically rooted farming models toward standardized, input-driven monocultures. In this context, the loss of mid-sized cereal farms should not be viewed solely as a socioeconomic transformation, it constitutes a strategic threat to Europe's long-term food security and resilience (Moretti et al., 2025).

As a result, the disappearance of mid-sized farmers both reflects and reinforces the current output-centered agricultural architecture. The absence of this buffer segment strips the system of the diversity of actors and crop varieties that ensure resilience in times of crisis, as was vividly demonstrated during the 2021–22 fertiliser crisis, when large monoculture operations dependent on imported inputs suffered sharply from supply disruptions and price spikes, whereas more diversified farms with local nutrient cycling and legume rotations were better able to adapt (Schuh & others, 2022)

3.2 Social and Demographic Disintegration

The decline of mid-sized cereal holdings is not merely an economic or agricultural issue; it represents a deeply rooted social transformation. Historically, these farms sustained rural communities by anchoring local economies, facilitating intergenerational knowledge transfer, and providing viable livelihoods (Lowder et al., 2019). As they disappear, the social fabric of rural life begins to unravel. One of the most visible consequences is demographic decline, particularly among younger cohorts. Without viable mid-scale farming prospects, many young people abandon both agriculture and rural areas. While these dynamics are observable across EU agriculture, they are especially severe in cereals, where economic viability is tightly linked to land scale. In this sector, the impacts of land consolidation, subsidy distribution, and price volatility are particularly acute. As mid-sized holdings vanish and farming becomes more capital-intensive, the resulting depopulation undermines the provision of essential rural infrastructure and services.

The demographic imbalance is stark. More than 57% of EU farm operators are now over the age of 55, while fewer than 12% are under 40 (Chatzitheodoridis & Kontogeorgos, 2020). In cereal-intensive regions such as Castilla y León, the average farmer is over 60, with 38% above 65 and less than 0.5% under 25 (Redacción, 2022). Structural barriers such as CAP per-hectare subsidies inflate land values and restrict access for young entrants. This dynamic, driven by rising land prices, investor speculation, and scale-biased support structures, has rendered pathways into farming nearly inaccessible for individuals without inherited assets. The gradual succession once enabled by mid-sized farms has largely disappeared.

These trends have resulted in sharp population loss. Between 2013 and 2019, the number of 15–24-year-olds in EU rural areas dropped from 3.62 million to 1.89 million (European Commission, 2025a). A similar contraction occurred among 25–29-year-olds. In Castilla y León, municipalities such as Molezuelas de la Carballeda report mean ages over 70 and have lost all basic services, schools, clinics, shops, and transport—since the early 2000s (Nicolas et al., 2025). Across the EU, rural areas have seen an 8.3% decline in population over the past decade (Eurostat, 2024). These patterns align closely with the erosion of mid-scale farming, as land and labor are consolidated into fewer, larger, and less socially embedded operations.

Labor market data reinforces this structural shift. Agricultural employment in the EU dropped nearly 30% between 2003 and 2018, from 13.1 million to 9.1 million annual work units[10]. Meanwhile, farms between 10–100 hectares declined by 17% between 2005 and 2020. These figures arise as a result of large-scale cereal systems, which have displaced labor-intensive family farms and accelerated depopulation in regions like Castilla y León and Aragón, now among Spain's most demographically fragile areas (Pinilla & Sáez, 2021). Some municipalities have lost up to 42% of their population since 2000, and more than 54% of the country's territory is now considered depopulating (Pinilla & Sáez, 2021). As rural density falls below viability thresholds, services become

[10] Annual Work Unit (AWU): a standardized measure of labor input in agriculture, equivalent to one person working full-time on a farm for a year—calculated by dividing the total hours worked by the average annual hours in a full-time job in the country (Eurostat). It allows comparison of employment levels irrespective of part-time or seasonal work

unsustainable, initiating a self-perpetuating spiral of abandonment (González-Leonardo et al., 2023).

Comparative analysis using Eurostat and European Parliament foresight data confirms this structural link between mid-scale farm disappearance and demographic collapse. From 2005 to 2020, farms under 5 hectares grew by 15%, and those over 100 hectares by 37%, while the mid-sized segment, especially in cereals, contracted most sharply registering a 17% decline as illustrated in Figure 10. Castilla y León again exemplifies this dynamic, with a rural median age exceeding that of urban areas and a negative population growth rate of –2.3 per 1,000, compared to modest urban gains (Schuh & others, 2022).

Efforts to reverse generational decline have yielded limited results. The 2023–2027 CAP mandates that Member States allocate 3% of direct payments to young farmers, but systemic barriers remain. Rising land prices, limited rental markets, and insufficient advisory services continue to hinder uptake. Between 2010 and 2020, the share of farm managers under 35 dropped from 7.5% to 6.5%, with fewer than 600,000 individuals under 35 managing farms across over 9 million EU holdings (Young Farmers - European Commission, 2023). National data reflects similarly poor outcomes: start-up support reached only 1.1% of farms in Madrid, 1.14% in Veneto, 2.9% in Emilia-Romagna, and 3.9% in Czechia. At least five Member States cited land access as the primary obstacle; others pointed to weak capital support and limited outreach infrastructure.

The economic barriers are considerable. Between 2020 and 2023, average EU arable land prices rose by 26.8%, from €9,298/ha to €11,791/ha (Eurostat, 2025b). This escalation, driven by speculative investment and subsidy misalignment, has effectively locked first-generation farmers out of the land market.

Environmental implications parallel these social costs. When mid-sized farms disappear, land either falls into abandonment or is absorbed into monoculture operations, both of which degrade biodiversity and climate resilience (Boccaletti et al., 2024). Older landowners often lack the labor or incentives to adopt sustainable practices. This is concerning, as younger farmers are statistically more likely to adopt agroecological

methods and precision technologies (Sajn, 2025). Yet they constitute just one in fifteen farm managers today, a number likely to fall further without systemic change. Their marginalization not only threatens generational renewal but also jeopardizes the EU Green Deal's ecological goals, such as pesticide reduction and expansion of organic agriculture.

In summary, the disappearance of mid-sized cereal farms is not a marginal shift, it is a structural rupture. It undermines demographic balance, weakens rural economies, and impedes environmental transitions. Addressing this trend requires structural reform that reorients land access, corrects subsidy distortions, and restores the central role of mid-sized farms within the EU agri-food system. Only then can Europe reestablish a socially and ecologically viable rural economy.

3.3 Environmental Unsustainability and Landscape Degradation

The disappearance of mid-sized cereal farms undermines Europe's environmental resilience. Their replacement by large-scale, input-intensive monocultures simplifies agricultural landscapes and amplifies ecological fragility (Beckers et al., 2018). These transformations accelerate biodiversity loss, pollute ecosystems, and reduce the food system's ability to adapt to climate stress.

A key driver of this trend is landscape homogenization. Unlike mid-sized farms that typically maintain hedgerows, intercropping strips, and buffer zones, large, consolidated holdings often remove these features to facilitate mechanized operations (Clough et al., 2020). The Joint Research Centre (JRC) reports that ecological infrastructure now covers only 5.6% of EU farmland—well below the 10% target set by the Green Deal. Spatial models confirm that mid-sized cereal farms, with their more varied land use and higher edge density, are better positioned to deliver the full ecological benefits of biodiversity schemes ((D'andrimont et al., 2023; Moretti et al., 2025); Moretti et al., 2025).

The ecological consequences of this shift are stark. Pollinators and farmland birds, key indicators of ecosystem health, have suffered drastic declines. Since 1980, the Common Farmland Bird Index has fallen by nearly 60%, with cereal-producing regions transformed into uniform monocultures among the hardest hit (Škorpilová, 2022). These

landscapes no longer provide the diversity of foraging and nesting habitats once sustained by traditional rotations and agroecological practices.

Mid-sized cereal farms also played a key role in buffering against chemical dependency. Their use of crop rotations and organic amendments promoted long-term soil health, reducing reliance on synthetic pesticides and fertilizers (Gawdiya et al., 2025). In contrast, large monoculture systems often compensate for degraded soils and labor shortages with intensive chemical inputs. Despite EU reduction targets, pesticide use, and imports (see Figure 3) remain elevated in several Member States most notably in France, which accounts for 21% of total EU pesticide sales, and Germany, which represents 15%. Both are among the EU's largest cereal producers, underscoring the persistence of chemically intensive production systems despite reduction targets (Neumeister & Rohwedder, 2022) (*UN Comtrade*, n.d.).

In addition, the erosion of mid-sized farms narrows the scope of on-farm ecological innovation. These holdings have historically adapted rotations, seed selections, and management practices to suit local conditions, making them important drivers of agroecological experimentation. Conversely, large agribusinesses dominate research budgets, but their R&D is concentrated on uniform, proprietary technologies. Studies show that technical efficiency declined in major seed companies—such as Bayer—following mergers, highlighting the innovation stagnation in consolidated systems (Wang et al., 2025).

The environmental cost of losing mid-sized farms extends to climate resilience. Features like rotational fallows, hedgerows, and intercropping strips regulate water cycles, preserve soil organic matter, and buffer extreme weather events (Van Den Berge et al., 2021). Their disappearance reduces these ecological buffers, leaving agroecosystems more vulnerable.

Although the CAP's 2023–2027 eco-schemes aim to integrate biodiversity and climate goals, implementation often falls short. Large-scale enterprises dominate scheme participation due to their administrative capacity and scale advantages but frequently treat compliance as a procedural exercise. In contrast, mid-sized cereal farms, with more

fragmented and diverse landscapes, are better positioned to translate these schemes into real ecological gains. Their field structures enable functional habitat connectivity and natural pest regulation, reinforcing biodiversity outcomes (Bianchi et al., 2006).

This chapter has demonstrated that the progressive disappearance of mid-sized cereal farms generates cascading vulnerabilities across the European agri-food system. Despite the magnitude of these challenges, EU policy responses have largely focused on treating symptoms, through fragmented supports and surface-level ecological schemes, rather than confronting the structural drivers of consolidation. As outlined in Chapters 1 and 2, these drivers are rooted in governance vulnerabilities embedded within the EU's agricultural and trade policy architecture. By failing to reform the institutional frameworks that perpetuate concentrated patterns of landholding and input dependency, the EU risks reinforcing a trajectory of increasing fragility rather than building long-term resilience.

Chapter 4 – Policy Recommendations

This thesis has shown that the EU's agri-food system rests on structurally fragile foundations. The Common Agricultural Policy and trade architecture have fostered deep dependence on imported agricultural inputs, weakening both food sovereignty and systemic resilience. Policy design in both trade and agriculture has favored integrated agribusinesses, increasing international price pressures on mid-sized cereal farmers while facilitating their acquisition by larger operators which rely on scale for profitability and benefit the most from direct subsidies. Their decline has brought far-reaching consequences: rural depopulation, reduced seed diversity, and increased vulnerability to external shocks. Taken together, these dynamics reflect a model that prioritizes volume and efficiency over diversity and stability, raising serious concerns about its long-term political legitimacy and sustainability.

If the objective is to shift from an output-oriented model toward one centered on resilience and territorial cohesion, or, in the Commission's own words from its Vision for Agriculture and Food[11] (February 2025), toward an agri-food system that is "attractive, competitive, resilient, future-oriented and fair", then both the incentive structures and the governance frameworks must be fundamentally rethought. Rather than applying incremental corrections to a model optimized for scale, this chapter advances the argument for structural and institutional reorientation necessary to extinguish the marginalization of small and mid-sized commodity farms, especially cereal farms.

To this end, this section introduces two policy proposals. First, the introduction of a CAP payment ceiling would disincentivize excessive land consolidation by reducing the financial attractiveness of accumulating large holdings. Second, the establishment of a Cross-DG Agri-Food Production Resilience Task Force mandated to develop disaggregated assessments of how trade agreements, subsidy schemes, and environmental transitions affect farms of different sizes and structures.

[11] The *Vision for Agriculture and Food* (19 Feb 2025) is the Commission's roadmap to create an EU farming and food system that supports farmers' income and transparency, ensures competitiveness and resilience, prepares for future challenges including food security and climate change, and promotes fairness in rural livelihoods.

The proposed policy recommendations are deliberately designed to target the structural vulnerabilities of the current agri-food production system by leveraging politically feasible, low-resistance pathways. Rather than pursuing sweeping reforms, they align with the EU's existing rhetoric around resilience, security, and equity, enabling them to gain traction within current institutional frameworks. They follow a pragmatic "spillover logic": modest in scope yet strategically framed to embed farm structure and cross-directorate collaboration into the standard operating logic of EU food governance, steps that, over time, could pave the way for more ambitious reforms, such as a Common Food Policy framework.

4.1 Introduce a CAP Payment Ceiling per Beneficiary

A way to address structural inequality in the Common Agricultural Policy (CAP) is to introduce a binding cap on the total amount of direct payments that any single farm enterprise can receive. For example, setting this ceiling between €60,000 and €100,000 per year with steeply reducing subsidy rates above certain thresholds (for example, a 25% reduction for payments between €60,000 and €75,000, 50% between €75,000 and €90,000, and 75% between €90,000 and €100,000, with no support beyond that) would ensure that large agribusinesses or landholding entities cannot accumulate unlimited subsidies simply by expanding their land base or fragmenting their holdings into nominal subsidiaries. Despite similar measures within EU legislation being in force, they tend to be of voluntary application with (*Regulation (EU) 2021/2115*, 2021) giving Member States the power to reduce payments for big farms as well as the possibility of setting additional tranches above €60,000, setting a precedent for cap celling being compatible with EU laws.

Table 2. Implementation of Voluntary CAP Payment Caps and Degressivity by EU Member States (2023–2027)

Instrument chosen (2023-27 CAP Strategic Plans)	***Member States (11 Plans)***	***Typical threshold declared[12]***
Both capping and degressivity	Ireland Spain Slovakia Belgium Flanders Belgium-Wallonia	– Reductions kick in above €60 000 (up to 85%) – Absolute ceiling at €100 000 **Examples** • *Ireland*: 85 % cut above €60 000 and full cap at €100 000. • *Spain*: −25 % (60-75 k) → −50 % (75-90 k) → −85 % (90-100 k) → 100 % over €100 k
Capping only	Austria Bulgaria Lithuania Latvia	– Straight cap at €100 000 (after permitted labour-cost deductions in AT, LT, LV, BG) **Examples** • *Austria*: cap €100 000 after labour-costdeduction • *Latvia*: cap €100 000 per recipient
Degressivity only	Portugal Slovenia	– Cuts above €60 000 but **no** hard €100 k cap **Example** • *Portugal*: 50 % cut on the slice > €100 000 (and no payments above that)

Source: (*CAP Strategic Plans - European Commission*, 2023)

[12] Member-state notifications differ in detail (e.g., whether salary costs are deducted first), but all must stay within the flexibility of Article 17 of Regulation (EU) 2021/2115: up to 85 % reduction above €60 000 and a possible full cap at €100 000.

By placing a mandatory upper limit on direct payments, the CAP would shift away from incentivizing large farms to hoard land ("race to expand") and instead promote a more

equitable and resilient agricultural landscape. The European Commission itself has previously recognized this imbalance. In its 2021–2027 CAP proposals, it recommended degressive payments and a €100,000 EU wide cap[13] (European Commission, 2018),although political compromises weakened the measure's implementation. Nevertheless, the rationale remains compelling: a hard ceiling would release substantial funds that could be reallocated toward mid-sized farms and rural development programs, where they are more likely to generate meaningful social and environmental benefits.

Both the European Court of Auditors and the European Parliament have repeatedly called for a fairer distribution of CAP aid (Lovec et al., 2024). In late 2023, then Agriculture Commissioner Janusz Wojciechowski renewed his call for mandatory capping of direct CAP payments, proposing ceilings around €100 000 per farmer, to curb land concentration, warning that the EU has already lost millions of family farms in recent decades. This underlines not only the economic logic behind capping but also the ethical and political imperative of restoring public trust by ensuring that support reaches working farmers who need it.

Concerns that capping might penalize productive farms or trigger artificial subdivision can be addressed through careful policy design, for instance, allowing labor-intensive farms to deduct wage costs from the capped amount, protecting employment in the process. What matters most is that this measure would eliminate the perverse incentive to hoard land simply to extract more subsidies. Empirical evidence shows that countries without effective caps, such as France, Germany, Denmark or Finland, have experienced faster farmland concentration than those with limits in place (Bourget, 2020) (*Farms and Farmland in the European Union - Statistics*, 2022).

[13] The upcoming CAP 2028–2032 introduces a new spending-cap mechanism, capping direct payments at €100,000 per farmer annually with degressively tiers, resulting in an overall budget decrease of over 20% compared to 2021, 2027. However, this adjustment is not analyzed in this body of work, as it emerged on too short notice to the completion of the thesis.

Capping high end subsidies would “level the playing field” in farm incomes, directly bolstering the economic viability of mid-sized cereal producers and removing an artificial stimulus for bigness (Bourget, 2020). In short, capping direct payments can help restore balance in the EU’s agricultural landscape, ensuring that public funds support a diverse, regionally embedded farming sector, rather than accelerating consolidation and systemic fragility.

4.2 Creating a cross-DG Agri-Food Production Resilience Task Force

One of the most critical institutional shortcomings evidenced throughout this thesis is the fragmented nature of EU governance over the agri-food system. As demonstrated in earlier chapters, agricultural, trade, environmental, and climate policies are often developed in isolation, producing incoherent and occasionally contradictory outcomes. While the CAP supports domestic cereal production, parallel trade liberalization (e.g., under EU–Mercosur) undermines price stability, and environmental directives introduce compliance costs without integrated mitigation. This institutional disconnection exacerbates pressure on structurally vulnerable actors, particularly mid-sized, non-integrated cereal farms.

To address this institutional misalignment, this thesis recommends the creation of a Strategic Agri-Food Production Resilience Taskforce (SAFPRT) within the European Commission. The SAFPRT would serve as a formal, cross-DG expert group, institutionalizing actor-sensitive policy coordination between DG AGRI, DG TRADE, DG CLIMA, DG ENV, and DG SANTE. Its mandate would be to develop disaggregated assessments of how trade agreements, subsidy schemes, and environmental transitions affect farms of different sizes and structures, with a particular focus on mid-sized cereal producers. Legally, the SAFPRT could be established through a new Commission Decision during the 2026 Green Deal stock take[14] or the CAP interim evaluation[15] under

[14] Commission review of CAP Strategic Plans to ensure alignment with EU Green Deal objectives (climate, biodiversity, soil, water) under Articles 6(1)(d–f) & Recital 122 of Regulation 2021/2115.
[15] Commission-led mid-term evaluation (by 31 Dec 2027) of CAP based on performance indicators and data sources (FADN, Eurostat, registries) assessing effectiveness, relevance, efficiency, coherence, and EU added value, as required by Art 141 of Regulation 2021/2115.

Article 141 of Regulation 2021/2115. It would be constituted under the framework of Commission Decision C(2016) 3301, which authorizes the formation of expert groups with full transparency, rotating leadership, and public accountability. Unlike time-limited Inter-Service Steering Groups (ISSGs) permitted under the Better Regulation Toolbox, the SAFPRT would be a registered expert group, ensuring institutional continuity aligned with flagship review cycles and subject to European Parliament oversight.

This Taskforce would serve three core functions. First, it would facilitate strategic coordination by hosting director-level working groups across relevant DGs to ensure coherence between CAP reform, trade agreements, environmental standards, and health regulations. Second, it would provide actor-sensitive analysis by delivering differentiated ex-ante impact assessments based on farm structure, thereby addressing the analytical limitations of conventional Sustainability Impact Assessments (SIAs), which often rely on aggregated computable general equilibrium (CGE) models. Third, the Taskforce would carry out trend and risk monitoring by developing and maintaining structural indicators to track consolidation patterns, levels of trade dependency, environmental stressors, and early warning signals of systemic fragility.

To extract the data required for this mission, the SAFPRT would establish a two-tiered data and monitoring system. At the institutional level, it would leverage existing EU-wide sources, FADN, Eurostat, UN Comtrade, DG AGRI dashboards, and national registries. At the territorial level, the Taskforce would work directly with local chambers of agriculture, regional observatories, and farmer cooperatives, forming resilience monitoring nodes. These nodes would be composed of agronomic advisors, farmer representatives (especially from small and mid-sized and family-run holdings), and municipal bodies tasked with collecting farm-level data, validating structural trends, and identifying unregistered vulnerabilities. A structured participatory guaranteed system[16],

[16] Participatory Guarantee Systems (PGS), a prominent example of this approach, are “locally focused quality assurance systems… based on active participation of stakeholders and built on trust, social networks and knowledge exchange,” where peers conduct inspections, share records, and enforce clear, predefined sanctions for non-compliance

similar to community-led certification in agroecological programs, would help ensure the credibility and granularity of locally sourced information.

Using this dual input, the SAFPRT would construct a set of multi-dimensional indicators to capture key structural dynamics within the agri-food system. These would include structural indicators such as land concentration, generational renewal, and farm exit rates; trade dependency measures like import shares of strategic crops and TRQ usage; environmental capacity metrics including rotation diversity, protein crop self-sufficiency, and input autonomy; and market vulnerability indicators such as price fluctuation exposure and integration levels by commodity and region.

The Taskforce would also ensure the systematic inclusion of regional voices through structured consultations, workshops, and participatory data interpretation. Farmer cooperatives, regional governments, and research institutions would serve as permanent stakeholders. The operability of these structured consultations could mirror that of the Scotland's Food & Agriculture Stakeholders Taskforce (FAST) which holds quarterly co-design workshops that bring together national and local farmer groups, Members of the Scottish Parliament (MSPs), and agronomic advisors. Participants collaboratively review disaggregated farm-level data and provide feedback through stakeholder panels, which are then used to inform draft legislative proposals (Quality Meat Scotland, 2025).

Its findings would be published in annual resilience reports, and its inputs would directly inform SIAs, addressing their chronic lack of granularity due to overreliance on aggregated CGE models, insufficient differentiation by farm type, and poor inter-DG coordination, as evidenced by critiques of the EU–Mercosur SIA (Rudloff, 2025). It would also prove a relevant source of information to shape CAP revisions and DG TRADE negotiating assessments. Additionally, the Taskforce would serve as a supporting data and risk analysis unit to the EFSCM, enhancing short-term crisis preparedness with long-term structural insight.

This recommendation also draws from long-standing policy advice. The IPES-Food 2019 report called for a cross-sectoral governance body to integrate siloed food policies (De

Schutter & Panel, 2019). Moreover, it aligns with the EU's evolving strategic positioning of food as critical infrastructure, recognized in both the EU Security Union Strategy (2020) and COM (2022)133 final, following recent disruptions such as COVID-19 and the war in Ukraine (European Commission, 2020).

Ultimately, the SAFPRT addresses a deep-rooted blind spot in EU policymaking: the lack of differentiation by farm structure. By institutionalizing disaggregated analysis, embedding cross-DG cooperation, and linking data gathering directly to territorial and farmer-led mechanisms, the Taskforce would support the emergence of a resilient, equitable, and strategically autonomous European food system.

The goal of these measures is to curb the disappearance of small and mid-sized commodity producers by explicitly recognizing their essential role in food system resilience. Each proposal contributes to this aim: the CAP payment ceiling addresses land consolidation; the Task Force institutionalizes routine differentiation between farm types through an actor composed by experts and members of different DGs, a dynamic mirrored in the EFSCM's multi-stakeholder structure. Together, these measures normalize distinctions between food and agricultural production, as well as between different types of producers, shifting the policy mindset from one concerned merely with securing output to one focused on sustaining its continuity over time, .laying the foundations for a policy narrative in which agricultural and food production is assessed not only through output levels but also through the structural diversity of producers a shift that can inform future initiatives and foster more holistic and equitable approaches to agri-food challenges.

Conclusion

This research has shown that the resilience of the European agri-food system is being eroded not simply by external trade shocks, but by internal policy architectures that systematically overlook the role of farm structure. By applying Food Regime Theory and analyzing the EU–Mercosur Agreement as an illustrative case, the thesis demonstrates how trade liberalization acts as an accelerator, rather than a root cause, of structural vulnerabilities already embedded in the Common Agricultural Policy and the EU's trade framework. These vulnerabilities manifest through land consolidation, a growing reliance on imported agricultural commodities of food feed and energy crops, that negatively affect mid-sized cereal farms. Although these farms rarely appear in the headlines or in high-level assessments, they constitute the invisible infrastructure of Europe'agri-food system. Their disappearance marks not only a socioeconomic loss but also introduces a systemic risk, as it reduces the redundancy and territorial anchoring required to withstand long-term shocks.

What emerges from this analysis is a pressing need to shift the EU's framing from short-term food security, measured by output levels, to long-term food resilience, grounded in territorial equity and structural diversity. This requires asking not just *how much* we produce, but *who* produces it and *under what conditions*. The findings challenge dominant efficiency narratives that assume scale automatically equals sustainability. Instead, they reveal that preserving a diversified farm structure, where mid-sized farms play a stabilizing role, is critical for ensuring the flexibility and continuity of supply in times of crisis. Recognizing the importance of "who farms" is thus not an ideological position, but a technical necessity for future-proofing EU food policy.

The study also underscores the need for more granular data and differentiated assessment mechanisms to capture the uneven impacts of trade and agricultural policies. This includes more act-sensitive Sustainability Impact Assessments, but also more systemic governance innovations, such as the creation of cross-DG bodies, that embed structural differentiation into policymaking.

This thesis opens space for further research into other sectors where similar patterns of structural invisibility may be taking hold, such as in livestock, fruits and vegetables, or dairy systems. It also calls for interdisciplinary investigation into how institutional silos, political path dependencies, and subsidy logics interact to sustain resilience-eroding dynamics. Ultimately, ensuring food resilience in Europe requires putting farm structure at the center of future policy design—and recognizing that the survival of mid-sized cereal farms is not peripheral, but essential, to the sustainability, equity, and autonomy of the European food system.

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