UNIVERSIDADE DE LISBOA
ISEG – Lisbon School of Economics and Management

Institutions in the agri-food markets: A collection of essays on Geographical Indication of Mercosur and the European Union

Guilherme Silva Fracarolli

Advisor: Prof. Dr. Manuel Francisco Pacheco Coelho

A thesis submitted in fulfillment of the requirements for the degree of Ph.D. in Economics and Organizational Sociology

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Declaration of Authorship

I, Guilherme Silva Fracarolli, declare that this thesis titled “The market of Geographical Indication in the European Union and Mercosur: A collection of essays” and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University;
- Where I have consulted the published work of others this is always clearly attributed;
- Where I have quoted from the work of others the source is always given, with the exception of such quotations, this thesis is entirely my own work;
- I have aknowledged all main sources of help.

Biographical Note

Guilherme Silva Fracarolli was born in Itapuí, São Paulo, Brazil, on June 3, 1985.

He graduated in agronomic engineering at Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ), University of São Paulo (USP) in 2008. He specialized in regional development at the Federal University of Paraná (UFPR) in 2011. In 2015, he completed a Master's in management and public policy at the Business Administration School of São Paulo (EAESP) at Getulio Vargas Foundation (FGV). In addition, he started 2019 a Doctoral Program in Economic and Organizational Sociology at the Lisbon School of Economics and Management (ISEG) of the University of Lisbon.

Since 2009 he has been working in the Brazilian public sector with public policies oriented towards sustainable development and family farming. First in the Ministry of Agrarian Development until 2016 and, later, in the Special Secretariat for Family Farming and Agrarian Development of the Civil House of the Presidency of the Republic until 2019. Currently, he is an agronomist at the Ministry of Agriculture, Livestock and Food Supply in the superintendence of the respective ministry in the state of São Paulo.

This thesis is the final contribution towards obtaining the degree of Doctor in Economic and Organizational Sociology.

Statement of Work

I confirm that Chapter 2, “Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges”, was previously published as open access as Fracarolli, G. S. (2021). Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges. Land, 10(11), 1182. https://doi.org/10.3390/land10111182.

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This Ph.D. thesis is dedicated to my grandparents.

Abstract

This thesis is situated and seeks to contribute to the debate on the determinants of the development of the market for agri-food products with a Geographical Indication (GI) in the European Union (EU) and the Southern Common Market (Mercosur). Different approaches were built on the subject and confronted with developmental and sociological critical theories for the situations found in both economic blocs. The analysis seeks support in constructing institutions in a broad spectrum as determinants in the formatting of the present market. From there, the construction of institutions over time conditions the development of this market.

The analysis is based on empirical and theoretical approaches. It seeks to frame the topic using methods capable of sustaining reality into theory and not the other way around. Throughout the six works presented, the thesis walks through the path of theory, normative analysis, market analysis, case study and future perspectives. Above all, the objective of this work is to investigate the causes of the differences in the market for products with GI between the EU and Mercosur. Thus, through critical analysis, it finds answers in the construction of institutions.

Therefore, in the first one, a critical theoretical approach to forming agrarian systems determines agri-food development. In the second, an analysis of the normative-legal set by both blocks about these products. In the third and fourth articles, the commercialization of these products in electronic markets of both blocs is investigated in depth in terms of occurrence, brands, origins, destinations and commercial permits. In the fifth, Brazil's casual example regarding the construction of institutions and results in the present market through a theoretical approach. Finally, there is an analysis of the broad-spectrum trade agreement between Mercosur and the EU regarding products with GI.

The global perspective of the analysis supports the hypothesis that the construction of institutions in Mercosur results from historical processes aimed at strengthening extractive models and large-scale land exploitation. These models shape markets to function in a logic of scale for the benefit of specific groups, inherent to the respective positions of each nation-state in the capitalist world. On the other hand, it was possible to build an institutional framework favorable to developing value-added models supported by more socially interactive agrarian models in the EU. There, the political and economic power dispute is more focused on the manufactured and industrialized sectors. However, the registrations of products with GI are not directly reflected in the market, restricted to an insignificant portion of these and with some degree of local protectionism.

It is concluded that the construction of institutions is crucial in the evolution and development of agri-food markets, especially products with GI. However, factors such as industrialization and the constitution of politically and economically dominant elites directly influence the development of the market. On the other hand, more comprehensive and participatory forms of governance can attenuate in the long term and constitute new institutional constructions. It is concluded that, in general, institutions constitute a complex aggregate of factors that directly influence the formation of markets for agri-food

products with GI and significantly result from historical-social constructions, being determinant to national and regional development models.

Keywords: Geographical Indication; Economic Sociology; Critical Theory; Colonization; Institutions.

Resumo

Esta tese situa-se e procura contribuir para o debate acerca dos determinantes do desenvolvimento do mercado de produtos agro-alimentares com Indicação Geográfica (IG) na União Europeia (UE) e o Mercado Comum do Sul (Mercosul). São construídas diferentes abordagens sobre o tema e confrontadas com teorias desenvolvimentistas e sociologicamente críticas para as situações encontradas em abos blocos económicos. A análise busca lastro na construção das instituições em amplo espectro como determinantes na formatação do mercado presente. A partir daí, tem-se que a construção das instituições ao longo do tempo condicionam o desenvolvimento do mercado desses produtos.

A análise realizada baseia-se em abordagens empíricas e teóricas e busca cercar a abordagem com o uso de métodos capazes de sustentar a realidade na teoria e não o inverso. Para isso, ao longo dos seis trabalhos apresentados, a tese percorre o caminho da teoria, análise normativa, análise de mercado, estudo de caso e perspetivas futuras. Sobretudo, o objetivo deste trabalho é investigar as causas das diferenças no mercado de produtos com IG entre UE e Mercosul. Assim, através da análise crítica, encontra respostas na construção das instituições.

Portanto, no primeiro uma abordagem teórica crítica da formação de sistemas agrários determinantes ao desenvolvimento agri-alimentar. No segundo, uma análise do conjunto normativo-legal por ambos blocos acerca desses produtos. No terceiro e quarto artigos são investigados a fundo a comercialização desses produtos em mercados eletrónicos de ambos os blocos quanto a ocorrência, marcas, origens, destinos e permissividades comercial. No quinto, há o exemplo casual do Brasil quanto a construção das instituições e resultado no presente mercado através de uma abordagem teórica. Por último, há uma análise do acordo de amplo espectro comercial entre Mercosul e UE no tocante aos produtos com IG.

A perspetiva global das análises corrobora a hipótese de que a construção das instituições no Mercosul resulta de processos históricos direcionados ao fortalecimento de modelos extrativistas e de exploração da terra em larga escala. Estes modelos moldam os mercados a funcionarem em uma lógica de escala em benefício de grupos específicos, inerente às respetivas posições de cada Estado-nação no mundo capitalista Em contraparte, na UE, foi possível contruir um arbaouço institucional favorável ao desenvolvimento de modelos com valor agregado sustentados em modelos agrários mais socialmente interativos, onde a disputa por poder político e económico volta-se em maior intensidade nos setores manufaturados e industrializados. Entretanto, ainda assim, os registos de produtos com IG não são diretamente refletidos no mercado, restrito a parcela pouco significativa desses e com algum grau de protecionismo local.

Conclui-se que a construção das instituções é determinante na evolução e desenvolvimento dos mercados agroalimentares, em especial o de produtos com IG. Entretanto, fatores como industrialização e constituição de elites dominantes política e economicamente influenciam diretamente o desenvolvimento do mercado. Em contrapartida, formas de governança mais abrangentes e participativas podem atenuar no longo prazo e constituir novas construções institucionais. Conclui-se que, de uma forma geral, as

instituições constituem um agregado complexo de fatores que influenciam diretamente na formação de mercados de produtos agroalimentares com IG e resultam significativamente de construções sociais históricas, sendo determinantes aos modelos de desenvolvimento nacionais e regionais.

Palavras-chave: Indicação Geográfica; Sociologia Económica; Teoria Crítica; Colonização; Instituções.

“If more of us valued food and cheer and song above hoarded gold, it would be a merrier world.”

–J.R.R. TOLKIEN

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Contents

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Acronyms

GI – Geographical Indication

EU – European Union

Mercosur - Southern Common Market

IP – Intellectual Property

WIPO – World Intellectual Property Organization

TRIPS – Agreement on Trade-Related Aspects of Intellectual Property Rights

WTO – World Trade Organization

NSE – New Economic Sociology

CT – Critical Theory

PDO – Protected Designation of Origin

PGI – Protected Geographical Indication

TSG – Traditional Specialities Guaranteed

DO – Denominação de Origem (Designation of Origin)

IP – Indicação de Procedência (Indication of Source)

IG – Indicación Geográfica (Geographical Indication)

INAO – Institut national de l'origine et de la qualité (National Institute of Appellations of Origin for Wines and Spirits)

ECSC – European Coal and Steel Community

EEC – European Economic Community

GDP – Gross Domestic Product

GVP – Gross Value Production

SFP – Specialty Food Products

FVC – Fruits, vegetables and cereals fresh or processed

UK – United Kingdom

INPI – Instituto Nacional da Propriedade Industrial (Brazilian National Institute of Industrial Property)

1. Introduction

There was a natural conceptual construction on certain products directly related to their geographical origin throughout human history. As a result, these products today receive a specific denomination. These are products that have Geographical Indications (GI). From the wines of Corinth and the oysters of Brindisi, the human being seeks to refer the food to places, thus going back from biblical periods to the most recent known as Parma ham or Champagne.

However, the first time the legal reference was given was in Portugal, in 1756. Then, the Prime Minister, the Marquis of Pombal, created the Companhia Geral da Agricultura das Vinhas do Alto Douro (later known as the Real Companhia or Companhia Velha) and determined the monopoly of the product trade and demarcation of its wine-growing area.

This type of protection, which recognizes savoir-faire, terroir or even the regional notoriety of production, are today treated as differentiated products that form a specific market niche, providing great competitive value in the global agri-food market.

Today, GI is a distinctive sign used in products characterized by a specific geographical origin and which have qualities, reputations or characteristics that are essentially attributable to that origin so that these products are known by their location or geographical designation (Gollo, 2006). Moreover, it is regulated in different ways worldwide, ensured through national legislation and international conventions.

This distinctive sign is intended to add value to the product and protect the producing region (Fabris et al., 2012). Furthermore, due to the consumer's willingness to pay more for this type of product (Fotopoulos & Krystallis, 2001; Menapace et al., 2011; Seetisarn & Chiaravutthi, 2011), this modality of intellectual property protection and market valorization characterizes the formation of a market niche. Thus, it becomes a starting point for a deeper study of specific agricultural markets.

To properly delve into the essential issues of the formation of this market, it is essential to attack the subject at its roots, its construction and how it develops. Consequently, the determining factors involved in the construction of markets and their regional differences must be better studied, as well as the consequences of these differences.

This approach is supported by studies on the economics of niche markets and the influence of property rights by Dobeson (2018); the approach of economic sociology is

the most appropriate way to understand the food market as a social construction (Allaire, 2010); and, above all, the perspective of the State as a stabilizing agent participating in the market through an institutional approach (Fligstein, 2008).

Many studies are dedicated to understanding how assets such as property rights or collectivist arrangements influence the market. However, these tend to be restricted to specific products, such as dairy in France (Dervillé & Allaire, 2014), or the importance of the state in the GI market for coffee in Kenya and Colombia (Barjolle et al., 2017). Therefore, there is plenty of scope for advancing the macro understanding of institutional influence in these markets.

As the oldest and most present globally, the food market has developed and generated particularities of a market full of actors and demands perceptions for its self-survival. Therefore, innovation and differentiation are seen as commercial strategies in the search to obtain consumer preferences for quality, characteristics and origin. Furthermore, Valente et al. (2012) argue that factors such as globalization, uncertainties about food origins and food crises promote consumers' desire to buy differentiated products whose quality and origin can be guaranteed.

Adopting the Geographical Indication (GI) label represents a form of innovation and product differentiation. In addition, GI is one of the topics that deal with the topic of Intellectual Property (IP). According to the World Intellectual Property Organization (WIPO), IPs refer to human creations, such as inventions, literary and artistic works, symbols, names, images, and designs used for commerce (World Intellectual Property Organization, 2004).

Under the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), signatories have the right to implement the same as they see fit (World Trade Organization, 2017). Hence the differences that require further investigation and study explain the differences in results.

The sociology of markets is undoubtedly the most appropriate field for discussing and studying the influence of regionalization, valuation, differentiation, and formation of single markets. This is usually divided into three theoretical groups (Fourcade, 2007): (a) networks (Burt, 2021; Granovetter, 1985, 2005; White, 1981, 2018), (b) institutions (Dobbin, 1994; Fligstein, 1997, 2001, 2002; Fligstein & Dauter, 2007; Powell & DiMaggio, 2012), or (c) performativity (Beunza & Stark, 2004; Callon, 2005, 2020; MacKenzie, 2008; MacKenzie & Millo, 2003) as explanatory mechanisms for the emergence and dynamics of markets, denoting a theoretical impasse for the case.

However, each theoretical group can perform more adequately the interpretation of specific economic sectors.

However, in order to achieve the proposed objectives, this thesis will also address issues such as agrarian structuring, forms of development and other aspects inherent to the construction of markets for agri-food products with geographical indication. In this way, it will be possible to address the causes and consequences of this construction in greater depth.

1.1 The Market as a Sociological Object

From a theoretical point of view, this investigation can be seen as part of the twilight that covers the intersection between sociology, economics, agronomy, management and marketing. As far as sociology is concerned, the connection between the social studies of markets highlights institutions' relevance. Thus, this is a multidisciplinary investigation in its essence. However, it allows an approach through economic sociology, the appropriate instance for a social debate on this market. Despite starting from the classical foundations of sociology and building on authors such as Durkheim, Marx and Weber, economic sociology, by rejecting monocausal explanations, allows advancing in the perspective and understanding of the subject by confronting the rationalist paradigm of homo economicus and the orthodoxy of the economic mainstream. This occurs from the perspective of obeying utilitarianism and reducing understanding by maximizing the advantages while minimizing costs and disregarding the contexts in which it is inserted.

Considering that much of the studies carried out within the field of New Economic Sociology (NSE) are aimed at various subjects ranging from financial markets and culture to contested or illegal markets. However, there is a gap to be filled in studying the phenomena and how the rules of exchange in the agrarian environment are given.

Likewise, within the agrarian field and, more precisely, within the agrarian economy, attention tends to be greater on large agricultural markets and commodity movements than on rural poverty. However, the mechanisms regarding market formation, stabilization, and its influences lack attention (Wilkinson, 2016).

Therefore, framing the present situation also within rural sociology, Schneider (2016) analyzes it as follows, reinforcing the need to perceive the market as a social construction and not limited to a mere profit-maximizing logic:

> "[...] markets are part of the social processes of production and reproduction of economic activities and family units; they influence people's lives, their values and their culture, shape and change institutions and are a reason for conflicts, protests and disputes." (Schneider, 2016, p. 95)

In this way, the present work seeks to deepen and discuss the congruence of these two fields that intersect. On the one hand, the debate on agricultural markets adds to the development of NSE and adds a field of study. Moreover, on the other hand, the NSE sheds light on the rural environment and its markets. It is not based on a reductionist but a complex and multicausal theory of action resulting from embeddedness. Thus, dealing with the NSE in the most current way possible brings it to the agrarian context. However, aware that it will not be possible to exhaust it.

1.1.1 The New Economic Sociology from Social Action

The basis for analysis that supports this investigation is centered on the New Economic Sociology. This social studies aspect is nothing more than using tools for a multidisciplinary understanding of a social issue beyond economic orthodoxy. Since the emergence of the social sciences, economics and sociology were roles that were part of the same drawer and had common roots within sociology (Raud-Mattedi, 2005a). Thinkers such as Émile Durkheim, Karl Marx, Max Weber, Georg Simmel, Karl Polanyi and Ferdinand Tönnies usually treated them as intertwined issues that made no sense to separate since they dialogued and became cause and consequence among themselves. On the other hand, through names such as Adam Smith, David Ricardo, John Stuart Mill and Vilfredo Pareto, the English classical school sought to distinguish the role of economic sciences in its study. However, at some point, both used explanatory levers, premises that led to the reasoning that configured an epistemological framework of explanatory monoism.

In both cases, the behavior of individuals, society or consumption was investigated through a monocausal lens. On the side of classical and neoclassical economics, the predominant approach of orthodoxy, individualism and utilitarianism as fruits of the homo economicus and Rational Choice Theory.

On the side of the founders of sociology, the prevailing thought for explaining the behavior of individuals and the market finds light in a structuralist perspective. The development of this line of thought, illustrated by Parsonian cultural determinism,

proposes a causal theory where the individual's behavior results from circumstances beyond the control of any individual. Such social factors would explain the context in which the individual is inserted. This context can be attributed to psychological effects, through cognitive biases; biological, through instinct or; cultural, through socialization effects, for example. Contrary to the traditional economic mainstream schools, the concept of the individual in the representation proposed by Dahrendorf (1964) is closer to that of homo sociologicus.

In "The Wealth of Nations" (Smith, 2000), Smith's argument already brought the idea of utilitarian maximization of one's own well-being, disregarding the ability to take actions for the benefit of others by itself. John Stuart Mill (2011, 2017) only refined the utilitarian conception of homo economicus by stating that political economy did not treat human nature as modifiable by the social state or its social conduct. For the author, this is just a being who has desires and seeks prosperity and does so through comparative judgment between his effectiveness and the means of obtaining it.

The emergence of a new way of thinking about economic issues was imperative in the face of the impasse between rationalists and structuralists. Despite Polanyi's contribution to the book The Great Transformation (2001), there was a need to develop a complex theory of action. Then, after decades of dormancy on the subject, the founding milestone of the New Economic Sociology was published in 1985 by Mark Granovetter with Economic Action and Social Structure: The Problem of Embeddedness (1985).

The article published by Mark Granovetter in 1985 brought new life to the sociological perspective of economic issues. It marked the (re)beginning of a new way of approaching issues of economic science not through classical and neoclassical schools, but through social methods, as part of this science. Likewise, it consolidates the category as a new subgenre of sociology, economic sociology. Swedberg (2004, p. 7), based on Weberian thought, defines Economic Sociology as "the application of sociological ideas, concepts and methods to economic phenomena – markets, companies, stores, unions, and so on" and describes it as sustained in the words of Weber, that his object studies "both economic phenomena and how these phenomena influence the rest of society and how the rest of society influences them (economically relevant phenomena)."

For the development of the NSE, Granovetter relies on three pillars: An economic action is a form of social action; economic action is socially situated; and economic institutions are social constructions (Granovetter, 1985, 1990; Granovetter & Swedberg, 2011). Under any of them, the importance of the problematic analysis of a concrete

economic issue from a non-isolationist perspective, but part of a social context, is remarkable. In other words, in Granovetter's work, Raud-Mattedi (2005b, p. 65) points out this understanding, stating that "The market, therefore, does not consist of a free play of abstract forces, supply and demand, between atomized and anonymous actors, but a set of actions closely intertwined in concrete networks of social relations.".

Regarding the first point raised by Granovetter (an economic action is a form of social action), sociology understands that there are different types of economic actions. Weber, for example, states that they can be rational, traditional or affectionate (Weber, 2019). There are different conceptions between economists and sociologists regarding the rationality of the process and how to face it. Whether as an assumption or a variable, the sociological approach is always more profound and curious. However, what matters here is its meaning for the purposes proposed here.

For this, we again turn to Weber (2019), endorsed by Swedberg (1998), who illuminates the discussion by stating that the economic action is not only motivated by the actor's material interest but also by orienting self actions to others, considering other behavior into account to attach meaning. Thus, we realize that economic action, characterized by the meanings brought to human actions, actually constitutes social actions, reinforcing Granovetter's argument.

Regarding the second point raised by Granovetter (the action is economically situated), the thesis deals with the core of network theory. It is an inflection point for the entire economic sociology. Raud-Mattedi's (2005b) interpretation is unambiguous and based on Granovetter's (1985) writings. The author understands that economic action being socially situated "means that individuals do not act autonomously, but that their actions are imbricated in concrete, continuous systems of social relations, that is, in social networks: this is the thesis of social imbrication (embeddedness) of economic actions" (Raud-Mattedi, 2005b, pp. 63–64).

Granovetter's central argument in this topic refers to the actors' conditioning involved in social actions to belong to networks of interpersonal relationships, resulting from the strength of the bonds maintained between them. In this way, these concrete interactions between actors would be able to respond to critical problems of classical and neoclassical theories by acting as a facilitator in the process of information circulation, guaranteeing trust and constraining actions in bad faith.

In other works, Granovetter emphasizes the social relationships characterized in the formation not of an individual but of groups in the sense of an adaptive struggle that

promotes cooperation in order to maintain stability, thus characterizing these social networks as structures that take the form of institutions. These institutions are not necessarily in the physical sense but forming networks and constituting stable units around unifying objectives.

In a complementary way, the role of the State is not directly addressed by Granovetter. However, it should be part of the analytical framework as an economically situated institution, acting directly or indirectly in economic actions. Thus, it is part of the social embeddedness of the more extensive (capitalist) system and needs specific attention. Complementary to the author Raud-Mattedi (2005b) points out the influences of administrative and legal rules on properties, authorities and financial institutions. Furthermore, he suggests the involvement between key actors of the State and groups that form institutions present in economic actions, adding complexity to the embeddedness of economic relations present in the current more extensive system.

Finally, state involvement as an institution and the political influence are very present in the works of Fligstein (1997, 2001, 2002, 2008, 2015), Fligstein & McAdam (2012) and Stone Sweet et al. (2001).

1.1.2 Social market studies and institutional involvement

Once the NSE was inaugurated, divergences in argumentative paths and theoretical approaches began to appear in an attempt to explain social actions. Thus, NSE is usually divided into three theoretical groups (Fligstein & Dauter, 2007; Fourcade, 2007): (a) networks (Burt, 2021; Granovetter, 1985, 2005, 2018; White, 1981, 2018), (b) institutions (Dobbin, 1994; Fligstein, 2002, 2008; Powell & DiMaggio, 2012), or (c) performativity (Beunza & Stark, 2004; Callon, 2005, 2020; MacKenzie, 2008; MacKenzie & Millo, 2003) as explanations mechanisms for the emergence and dynamics of markets.

However, according to Fligstein & Dauter (2007), all three approaches understand the market as social arenas where firms, suppliers, consumers, workers and governments interact. Still, all three seek to understand how the interconnections between all these actors affect their behaviors.

As an explanatory mechanism, institutionalist researchers seek answers on how economic actions configure social actions through contexts such as the formal and informal rules of markets, power, and norms.

Like the supporters of using network theories to explain markets, institutionalists theoretically use techniques such as trust, information, power, resource dependence and co-option to explain constituted social structures (Fligstein & Dauter, 2007).

According to Davis (1991), these theorists are interested in how phenomena presented in the field diffuse to make them isomorphic through social networks. Still, adherents of this approach, as well as performative theorists, are interested in how the culture of specific markets influences the creation and sale of goods.

Furthermore, the institutional theory is the one that most frequently uses elements of political economy in its analyses. Special attention is given to the governmental role and legal framework in constructing specific characteristics of markets, such as types of alliances, forms of cooperation or property rights (Campbell & Lindberg, 1990; Carruthers & Ariovich, 2004). Similarly, institutionalists also seek to base explanations of how markets work on elements of population ecology, as do network theorists.

Therefore, considering the elements postulated by Fligstein & Dauter (2007), it is reasonable to assume that the institutional approach is the most embracing method for this thesis among the three mentioned. However, it is not unique or even ideal for all cases. Moreover, it can prove to be of great value and efficiency in the case of agricultural markets and, in particular, for its niche markets.

Finally, although from different (or even divergent) perspectives, it is unnecessary to address the influence of institutions on social relations that form structures addressed by authors such as Goffman, Foucault or Becker. In any case, the participation of state agents and the state itself in the composition of actors in an embeddedness relationship is undeniable.

Despite any theoretical perspective, the market within economic sociology must be understood as a social structure (Abramovay, 2000, 2004; Fligstein, 2001; Smelser & Swedberg, 2010; Steiner, 2017). Furthermore, these social structures can be understood as the result of social constructions. They shape how institutions participate in economic action. Given this, institutions would be the abstract structures that act as social constructions, socially related to other social constructions, which operate economic actions. In this way, the understanding and interpretation of markets as social constructions become clear.

From the sociology of markets, a well-argued and detailed definition is made as follows:

> "they presuppose social spaces where repeated exchanges take place between buyers and sellers under a set of formal and informal rules that govern relationships between competitors, suppliers and customers. These fields operate according to local understandings and rules, as well as formal and informal conventions that guide interaction, facilitate trade, define the products that are produced, and, in fact, are constitutive of the products, as well as providing stability for buyers, sellers and producers". In (Fligstein & Dauter, 2007, p. 113).

Complementarily, Steiner (2017) treats markets in different senses, the relational and the structural. First, as an arena for exchange, which filters the pairs to relate to each other. The second incorporates production, involving firms and their respective behavior. Moreover, based on Bourdieu and Fligstein, it can be simplified as recurring and patterned interactions between actors to exchange capital and goods. Both authors, rooted in a Weberian plea, reinforce the thesis that markets result from social structures and the interaction of their actors.

Moreover, the institutional approach used by Fligstein (2001) and Allaire (2009, 2010) and Dervillé & Allaire (2014) complement the theory of social action used by Weber (2019). According to Fligstein (2002, 2008), changes in property rights and governance structures require rules of exchange and control of conceptions for differentiated products, which can be translated into a tendency towards cooperative actions, stimulated by specific social skills, identities and common interests. However, it is at this point that the knowledge gap lies. Only a few studies are applied to agriculture regarding the sociological approach to niche market formation.

It is precisely this scientific gap that this work aims to deepen, the construction of the market for agri-food products with geographical indication through the institutions that structure it.

1.2 Agrarian models and property rights

In the 18th century, François Quesnay reflected on the importance of agricultural production and attributed value to it in the multiplication of the farmer's effort and resources while manufacture would be sterile. Years later, Theodore Schultz, upon receiving the Nobel Prize in economics in 1979, placed agriculture at the center of world economic development (Schultz, 1980).

Considering the theoretical framework established so far, paying particular attention to the empirical universe, the marketing universe of agri-food products with GI in Mercosur and the European Union is necessary. Therefore, this section will first seek to differentiate the agrarian models existing in the world today to justify the theme's approach through the NSE. Then, the sociological nexuses of the topic will be presented both in the agrarian spectrum and within the NSE.

1.2.1 Agrarian models and sociology

In the period between the two figures mentioned, Weber already understood the importance of sociological discussion and involvement in agrarian contexts between the end of the 19th century and the beginning of the 20th century (Weber, 2008, 2013). He lectured on history, sociology and agrarian legislation and already mentioned a primitive kind of capitalism in ancient agricultural markets. In these works, the author addresses issues such as public lands and the collection of taxes on them, implying the state relationship between Rome and the farmers. However, Weber's attention to the political structures of primitive states and their relationship with economic development deserves deeper notice, which will not be part of this thesis. Thus, perhaps the mention of the first historical case under the economic sociology approach can illustrate the due importance.

Weber's works serve as an introductory to the importance of approaching economic sociology in agrarian contexts. Nevertheless, in what other situations can economic sociology help us better analyze agricultural markets? In particular, how do product differentiation and the joint characterization of regionalities create rules and exchange relationships between actors for new market formation, stabilization and transformation for regional niches?

In his article on embeddedness, Granovetter (1985, p. 488) makes a fundamental meaning of validation and market gap without detailing explanations about super or sub socializations, showing that "what has eroded this confidence in recent years has been increased attention to the micro-level details of imperfectly competitive markets, characterized by small number of participants with sunk costs and 'specific human capital' investments."

Applied to the agri-food market, there is essentially a predominance of two types. On the one hand, there is the agricultural commodity market, with conditions approaching

perfect competition, and, on the other hand, niche-forming products, with opposite conditions.

Works such as those by Belletti et al. (2015), Barjolle et al. (2017) and Dentoni et al. (2012), for example, focus on the developmental aspect when addressing the effects arising from the use of geographical indications in the case of olive oil in the European Union, the case of coffee in Colombia and Kenya and the case of Parma ham, in Italy, respectively. However, despite being a rich reference source, they do not focus on understanding the market per se. Therefore, the natural, evident and unique path for these agricultural markets is the framework within the approach proposed by the NSE.

In this discussion, Winter (2003), for example, argues that local markets for agri-food products are more a political defense of localism than a defense of organic or ecological production. In a similar sense, Huysmans & Swinnen (2019) understand that there is development with the promotion of products with Geographical Indications - GI, but their more significant presence in southern Europe compared to the north suggests the influence of protectionist instruments. Finally, Tregear et al. (2007) demonstrate how the relationship between social actors in specific structures promotes differentiated arrangements and establishes different market conditions. The works of Allaire (2009, 2010) are also noteworthy. They delved into the subject of the functioning of the food market by correlating it with the NSE. The author establishes a theoretical model for building and analyzing institutions in markets, including property rights, governance structures, models of competition and rules of exchange. All these works reinforce the relationship of political embeddedness in market formation and pave the way for a better understanding of the functioning of the specific question. Furthermore, it demonstrates the need to attack the subject from the perspective of very variable factors, moving away from the merely economic mainstream approach.

1.2.2 Property rights through the Geographical Indication

Geographical Indications are popularly recognized long before any legal or formal system. However with the development of systems that ensure intellectual property over products that cannot be replicated as a result of attempts to usurp the name and mislead consumers, Geographical Indications now have a legal safeguard (Allaire et al., 2011).

According to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization (2017), GI is a sign used on products

with a specific geographical origin and possesses qualities, reputation, or characteristics essentially attributable to this origin. These products are known by the location of their products or geographical designation (Gollo, 2006) and aim to value traditional products linked to certain territories. Furthermore, they promote local values such as environmental, cultural and traditional ones, incorporating the term "glocalization" (Giovannucci et al., 2009).

However, not all countries have the same protection instrument for this type of product. The current legal framework dates from the signing of the Trade Agreement on Aspects of Intellectual Property Rights, established in 1994, and amends (World Trade Organization, 2017), supported by previous agreements, such as those of Lisbon, Madrid and Paris, which dealt with some aspects of protection of this nature of goods. The agreement allows the protection of goods in three ways: sui generis, collective or certification marks, and business practices and combinations between them. The European Union adopted sui generis as a method, understanding that it guarantees a certain quality, origin and reputation depending on its terroir (Friedmann, 2019) (Friedmann, 2019). On the other hand, the "New World," such as the United States, Chile and Australia, mostly adopted methods already known as trademarks, certifications or collective marks, betting on modernity, dispensing with new legal instruments (Friedmann, 2019). Despite the legal pattern of global dispersion, the countries comprised by Mercosur followed Europe in how to face the registration of such products.

Based on supranational legal bases, the European Union sought to guarantee an institutional system that dates back to 1883, made official in the Paris Convention, initially by six countries, but which, based on TRIPS, has in Regulation no. 1,151/2012, its most current legal instrument. However, in Mercosur, despite having a Decree 8/95 from the economic bloc, it was not approved by all participating countries, such as Brazil, creating a gap in regional uniformity on the subject.

Therefore, the sociological approach cannot escape the debate on adopting the distinctive sign as a national and supranational legal instrument, as demonstrated, lacking means that deal with property rights as a central instrument in the state conception for the market in question.

The approach focuses on some of the 16 propositions established by Fligstein (2008), about the interactions between the State and social groups. Five of them, specifically. They address the state's influence in creating and maintaining market stability. Also, based on the statement that:

> "These institutions – what can be called property rights, governance structures, conceptions of control, and rules of exchange – enable actors in markets to organize themselves, to compete and cooperate, and to exchange." (Fligstein, 2008, p. 199)

Thus, by adopting property rights, governance structures, control concepts and organizational norms as critical aspects of market construction, the present thesis proposes to address it towards Geographical Indication of agri-food products.

While some researchers understand that GIs can be an instrument of protectionism (Huysmans & Swinnen, 2019), others understand that they can be an important regional development tool (Allaire & Sylvander, 1997; Dobeson, 2018; Tregear et al., 2007), and there are still those who assume cultural valorization (Dentoni et al., 2012) to the detriment of "production museums" (Bowen & De Master, 2011).

Thus, considering the theoretical elements mentioned here, both in terms of property rights and the purpose of using distinctive signs of origin, the subdivisions and approaches proposed within the sociology of markets and, above all, the characteristics and peculiarities of the agricultural markets exposed, it is evident the relevance of the institutional approach to regional agricultural markets. Furthermore, the influence of regulatory and state arrangements in the formation, stabilization and transformation of this market is notorious, demonstrating the relevance of the present study and approach.

1.3 Objectives and thesis structure

Having made the first and brief introductory remarks, addressing how the present thesis proposes to face the subject is necessary. At the outset, aware of the impossibility of exhausting the topic, the present work aims to contribute to the expansion of the understanding of the institutional mechanisms involved in the construction of agri-food markets with Geographical Indication in Mercosur and the European Union. Above all, the objective of this work is to investigate the causes of the differences in the market for products with GI between the EU and Mercosur

This thesis consists of five scientific articles previously published or submitted in journals indexed in SCOPUS and Web of Science to carry out this task. Each article deals with a specific aspect of the construction or effect of the market in question.

This present work aims, through a guiding thread, to explore aspects inherent to understanding the construction of the market for Geographical Indication (GI) products from various perspectives. Initially, it dialectically discusses the process of market formation from an agrarian standpoint and how it determines the complexity of these product markets. In the following two chapters, by analyzing the online retail market, it delves into how this complexity manifests itself for consumers. Subsequently, it focuses on a specific case, that of Brazil, to comprehend how these agrarian systems have unfolded historically due to the colonization process that resulted in the formation of institutions, shaping the country's rural landscape. Lastly, it examines how the present state of these markets is put to the test, materialized in a broad free trade agreement between the two trading blocs. In this way, it aims to contribute to a comprehensive understanding of the subject, addressing various aspects of this market and utilizing diverse methodologies to achieve the objectives, without claiming to exhaust it.

Chapter 2 consists of the first article that composes this thesis entitled "Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges." It was published in Land journal and dealt using critical theory with the historical process of development of the forms of agriculture practiced in the world to serve specific production models. This article serves as a theoretical basis and premise that underpins the construction of the thesis and development of productive models capable of differentiating themselves and producing unique goods such as those of GI.

Chapter 3 is an article with a more applied character. The article is entitled "The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU" published in the journal Sustainability. Through an analysis of legal discourse and in a comparative way, it addresses the institutional mechanisms applied to the regulation regarding GIs at the regional bloc level and their impacts. This specific approach is a gap in the literature on the subject that brings relevant analysis and conclusions to the construction of this market.

The fourth and fifth chapters also consist of articles of an applied nature. Both results from a survey carried out in online retail markets between EU and Mercosur countries presented the analysis from different perspectives.

The fourth chapter and article is entitled "Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union" published in the journal Economies. The article focuses on the result of collecting

information on the online retail markets of the countries of both blocs regarding the origin and quantity of varieties of GIs found.

The fifth chapter and article is entitled "Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves" published in the journal Agronomy. As well as the third article, it analyzes the data found in the survey with the e-retail markets. However, in this one, the analysis focuses efforts on the brands involved in products with GI and the relevance of the supermarket's own brand.

The sixth chapter consists of a fifth article entitled "Rural development and institutions in the agri-food market: The Brazilian case," also published in the journal Economies. This article closes the body of the thesis with a case study. The work explores the Brazilian case of market construction based on the formatting of national institutions according to their history. Thus, it analyzes the concrete case of the construction of institutions and respective market orientations.

The seventh chapter consists of an expanded abstract of an article submitted and presented at the event "Worldwide Perspectives on Geographical Indications", in Montpellier, France, from July 5 to 8, 2022. The introductory work analyzes the impacts on the market of products with GI arising from the trade agreement between the EU and Mercosur, covering the main products and the terms of the agreement.

Finally, in the eighth chapter, the thesis analyzes the findings and draws relevant conclusions referring to the five scientific articles and chapters present. With this, it hopes to contribute to academic and practical development in the sense of rural development in the construction of markets, emphasizing products with geographical indication.

1.4 References

Abramovay, R. (2000). A rede, os nós, as teias: Tecnologias alternativas na agricultura. Revista de Administração Pública, 34(6), 159–177.

Abramovay, R. (2004). Entre Deus e o diabo: Mercados e interação humana nas ciências sociais. Tempo Social, 16(2), 35–64. https://doi.org/10.1590/S0103-20702004000200002.

Allaire, G. (2009, August 16). Economics of Conventions and the New Economic Sociology and our Understanding of Food Quality and New Food Markets and Trade Institutions: What are markets that pure economics does not know? Plenary Session 5 "The New Landscape and the Need for an Extension to the Agricultural Economics Toolkit." 27th International Conference of Agricultural Economist, Beijing. https://doi.org/10.22004/AG.ECON.53203

Allaire, G. (2010). Applying economic sociology to understand the meaning of "Quality" in food markets. Agricultural Economics, 41, 167–180.

Allaire, G., Casabianca, F., & Thévenod-Mottet, E. (2011). Geographical Origin: A Complex Feature of Agro-food Products. In E. Barham & B. Sylvander (Eds.), Labels of Origin for Food: Local Development, Global Recognition. CABI.

Allaire, G., & Sylvander, B. (1997). Qualité spécifique et systèmes d'innovation territoriale. Cahiers d'Economie et de Sociologie Rurales (CESR), 44(905-2016–70588), 29–59.

Barjolle, D., Quiñones-Ruiz, X. F., Bagal, M., & Comoé, H. (2017). The Role of the State for Geographical Indications of Coffee: Case Studies from Colombia and Kenya. World Development, 98, 105–119. https://doi.org/10.1016/j.worlddev.2016.12.006

Belletti, G., Marescotti, A., Sanz-Cañada, J., & Vakoufaris, H. (2015). Linking protection of geographical indications to the environment: Evidence from the European Union olive-oil sector. Land Use Policy, 48, 94–106. https://doi.org/10.1016/j.landusepol.2015.05.003

Beunza, D., & Stark, D. (2004). Tools of the trade: The socio-technology of arbitrage in a Wall Street trading room. Industrial and Corporate Change, 13(2), 369–400. https://doi.org/10.1093/icc/dth015

Bowen, S., & De Master, K. (2011). New rural livelihoods or museums of production? Quality food initiatives in practice. Journal of Rural Studies, 27(1), 73–82. https://doi.org/10.1016/j.jrurstud.2010.08.002

Burt, R. S. (2021). Structural Holes. Harvard University Press. https://doi.org/10.4159/9780674029095

Callon, M. (2005). Why virtualism paves the way to political impotence: A reply to Daniel Miller's critique of" The laws of the market". Economic Sociology: European Electronic Newsletter, 6(2), 3–20.

Callon, M. (2020). What does it mean to say that economics is performative? In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), Do Economists Make Markets? Princeton University Press. https://doi.org/10.1515/9780691214665

Campbell, J. L., & Lindberg, L. N. (1990). Property rights and the organization of economic activity by the state. American Sociological Review, 634–647.

Carruthers, B. G., & Ariovich, L. (2004). The sociology of property rights. Annual Review of Sociology, 23–46.

Dahrendorf, R. (1964). Homo Sociologicus. In R. Dahrendorf (Ed.), Homo Sociologicus: Ein Versuch zur Geschichte, Bedeutung und Kritik der Kategorie der sozialen Rolle (pp. 13–96). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-322-85721-7_1

Davis, G. F. (1991). Agents without Principles? The Spread of the Poison Pill through the Intercorporate Network. Administrative Science Quarterly, 36(4), 583–613. JSTOR. https://doi.org/10.2307/2393275

Dentoni, D., Menozzi, D., & Capelli, M. G. (2012). Group heterogeneity and cooperation on the geographical indication regulation: The case of the "Prosciutto di Parma" Consortium. Food Policy, 37(3), 207–216.

Dervillé, M., & Allaire, G. (2014). Change of competition regime and regional innovative capacities: Evidence from dairy restructuring in France. Food Policy, 49, 347–360.

Dobbin, F. (1994). Forging Industrial Policy: The United States, Britain, and France in the Railway Age. Cambridge University Press.

Dobeson, A. (2018). Economising the Rural: How New Markets and Property Rights Transform Rural Economies. Sociologia Ruralis, 58(4), 886–908. https://doi.org/10.1111/soru.12215

Fabris, J., Machado, G. J. C., & de Aragão Gomes, I. M. (2012). Evolução da proteção dos produtos tradicionais. Revista Geintec - Gestão, Inovação e Tecnologias, 2(4), 387–395.

Fligstein, N. (1997). Social skill and institutional theory. American Behavioral Scientist, 40(4), 397–405.

Fligstein, N. (2001). Social skill and the theory of fields. Sociological Theory, 19(2), 105–125.

Fligstein, N. (2002). The architecture of markets: An economic sociology of twenty-first-century capitalist societies. Princeton University Press.

Fligstein, N. (2008). Markets as Politics: A Political-Cultural Approach to Market Institutions. In Readings in Economic Sociology (pp. 197–218). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470755679.ch11

Fligstein, N. (2015). The Theory of Fields and Its Application to Corporate Governance. Seattle University Law Review, 39, 237.

Fligstein, N., & Dauter, L. (2007). The Sociology of Markets. Annual Review of Sociology, 33(1), 105–128. https://doi.org/10.1146/annurev.soc.33.040406.131736

Fligstein, N., & McAdam, D. (2012). A theory of fields. Oxford University Press.

Fotopoulos, C., & Krystallis, A. (2001). Are Quality Labels a Real Marketing Advantage? A Conjoint Application on Greek PDO Protected Olive Oil. Journal of International Food and Agribusiness Marketing, 12(1), 1–22. Scopus. https://doi.org/10.1300/J047v12n01_01

Fourcade, M. (2007). Theories of Markets and Theories of Society. American Behavioral Scientist, 50(8), 1015–1034. https://doi.org/10.1177/0002764207299351

Friedmann, D. (2019). Geographical Indications in the EU, China and Australia, WTO Case Bottling Up Over Prosecco. In J. Chaisse (Ed.), Sixty years of European integration and global power shifts, perceptions, interactions and lessons. (pp. 411–427). Hart Publishing. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3218810

Giovannucci, D., Josling, T. E., Kerr, W. A., O'Connor, B., & Yeung, M. T. (2009). Guide to geographical indications: Linking products and their origins (summary). Available at SSRN 1736713.

Gollo, S. S. (2006). Inovação e estratégia de cooperação competitiva: Estudo de caso da indicação de procedência Vale dos Vinhedos - Serra Gaúcha/RS [PhD Thesis, Universidade Federal do Rio Grande do Sul]. https://lume.ufrgs.br/handle/10183/6653

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. American Journal of Sociology, 91(3), 481–510. https://doi.org/10.1086/228311

Granovetter, M. (1990). The old and the new economic sociology: A history and an agenda. Beyond the Marketplace: Rethinking Economy and Society, 89–112.

Granovetter, M. (2005). The Impact of Social Structure on Economic Outcomes. Journal of Economic Perspective, 19(1), 33–50.

Granovetter, M. (2018). The sociology of economic life. Routledge.

Granovetter, M., & Swedberg, R. (Eds.). (2011). The Sociology of Economic Life (3rd ed. edição). Westview Press.

Huysmans, M., & Swinnen, J. (2019). No Terroir in the Cold? A Note on the Geography of Geographical Indications. Journal of Agricultural Economics, 70(2), 550–559. https://doi.org/10.1111/1477-9552.12328

MacKenzie, D. (2008). An Engine, Not a Camera: How Financial Models Shape Markets. MIT Press.

MacKenzie, D., & Millo, Y. (2003). Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange. American Journal of Sociology, 109(1), 107–145. https://doi.org/10.1086/374404

Menapace, L., Colson, G., Grebitus, C., & Facendola, M. (2011). Consumers' preferences for geographical origin labels: Evidence from the Canadian olive oil market. European Review of Agricultural Economics, 38(2), 193–212. https://doi.org/10.1093/erae/jbq051

Mill, J. S. (2011). On Liberty. Cambridge University Press; Cambridge Core. https://doi.org/10.1017/CBO9781139149785

Mill, J. S. (2017). Utilitarianism. Pinnacle Press.

Polanyi, K. (2001). The Great Transformation: The Political and Economic Origins of Our Time (2nd edition). Beacon Press.

Powell, W. W., & DiMaggio, P. J. (2012). The New Institutionalism in Organizational Analysis. University of Chicago Press.

Raud-Mattedi, C. H. J. (2005a). A construção social do mercado em Durkheim e Weber: Análise do papel das instituições na sociologia econômica clássica. Revista Brasileira de Ciências Sociais, 20, 127–142.

Raud-Mattedi, C. H. J. (2005b). Análise crítica da Sociologia Econômica de Mark Granovetter: Os limites de uma leitura do mercado em termos de redes e imbricação. Política & Sociedade, 4(6), 59–82. https://doi.org/10.5007/%x

Schneider, S. (2016). Mercados e agricultura familiar. In F. C. Marques, M. A. Conterato, & S. Schneider (Eds.), Construção de mercados e agricultura familiar: Desafios para o desenvolvimento rural (pp. 93–140). Editora da UFRGS.

Seetisarn, P., & Chiaravutthi, Y. (2011). Thai consumers willingness to pay for food products with geographical indications. International Business Research, 4(3), 161–170. https://doi.org/doi:10.5539/ibr.v4n3p161

Smelser, N. J., & Swedberg, R. (2010). The handbook of economic sociology. Princeton university press.

Smith, A., 1723-1790. (2000). The wealth of nations / Adam Smith ; introduction by Robert Reich ; edited, with notes, marginal summary, and enlarged index by Edwin Cannan. New York : Modern Library, 2000. https://search.library.wisc.edu/catalog/999905503902121

Steiner, P. (2017). A Plea for a Weberian Economic Sociology. Archives Européennes de Sociologie, 58(3), 545.

Stone Sweet, A., Sandholtz, W., & Fligstein, N. (2001). The institutionalization of Europe. Oxford University Press.

Swedberg, R. (1998). Max weber's manifesto in economic sociology. European Journal of Sociology, 39(2), 379–398. Cambridge Core. https://doi.org/10.1017/S0003975600007670

Swedberg, R. (2004). Sociologia econômica: Hoje e amanhã. Tempo Social, 16, 7–34.

Tregear, A., Arfini, F., Belletti, G., & Marescotti, A. (2007). Regional foods and rural development: The role of product qualification. Journal of Rural Studies, 23(1), 12–22.

Valente, M. E. R., Perez, R., Ramos, A. M., & Chaves, J. B. P. (2012). Indicação geográfica de alimentos e bebidas no Brasil e na União Europeia. Ciência Rural, 42(3), 551–558.

Weber, M. (2008). Roman Agrarian History: In Its Relation to Roman Public & Civil Law (R. I. Frank, Trans.). Regina Books.

Weber, M. (2013). The Agrarian Sociology of Ancient Civilizations. Verso Books.

Weber, M. (2019). Economy and society: A new translation. Harvard University Press.

White, H. C. (1981). Where Do Markets Come From? American Journal of Sociology, 87(3), 517–547. https://doi.org/10.1086/227495

White, H. C. (2018). Markets from Networks: Socioeconomic Models of Production. Princeton University Press. https://muse.jhu.edu/book/61080

Wilkinson, J. (2016). Os mercados não vem mais do “Mercado.” In F. C. Marques, M. A. Conterato, & S. Schneider (Eds.), Construção de mercados e agricultura familiar: Desafios para o desenvolvimento rural. (pp. 53–73). Editora da UFRGS.

Winter, M. (2003). Embeddedness, the new food economy and defensive localism. International Perspectives on Alternative Agro-Food Networks: Qua Lity, Embeddedness, Bio-Politics, 19(1), 23–32. https://doi.org/10.1016/S0743-0167(02)00053-0

World Intellectual Property Organization (Ed.). (2004). What is Intellectual Property? World Intellectual Property Organization (WIPO). https://doi.org/10.34667/tind.28588

World Trade Organization. (2017, January 23). Agreement on Trade-Related Aspects of Intellectual Property Rights. https://www.wto.org/english/docs_e/legal_e/31bis_trips_01_e.htm

2. Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges

Abstract: The social construction of the agri-food market has undergone revolutionary changes throughout history since the Anthropocene. This conceptual paper discusses the embeddedness of institutions in this market construction. To do so, this work analyses the geographical indication (GI) of agri-food market formation through the lens of critical theory. Through dialectics, it analyzes the historical process of agrarian systems' shape according to their complexity, and the origins and effects of hegemonic interests in the construction of agri-food markets. Furthermore, this work shows how the market has evolved from different trade types as the capitalist system also evolved, changing the mechanics of trade and functions of food production. The results indicate that as agrarian systems evolved, food became more homogeneous and standardized in order to meet the demands of urban masses in capitalist economies. Regions where less complex systems predominate tend to hinder the creation, maintenance, and perpetuation of products such as GI, which may compromise their existence in the long run. Moreover, nations reproduce ideologically oriented interests according to the formation of dominant groups in each place, as also expressed in the agri-food market. This paper aims to provide new conceptual and theoretical insights into the institutional mechanisms and historical processes of agri-food market construction in terms of power interests.

Keywords: geographical indication; agrarian systems; economic sociology; cultural hegemony; agri-food complexity; critical theory

2.1. Introduction

The relationship between humans, agriculture, and food production and consumption has been an issue since around ten thousand years ago (Mazoyer & Roudart, 2010). The Neolithic saw the establishment of the first permanent human settlements, made possible by the domestication of animals and plant cultivation. Nevertheless, this relationship has not been the same in every location, nor has it developed the same way. As a complex combination of a cultivated ecosystem and productive social system (Mazoyer & Roudart, 2010), agriculture evolved heterogeneously across time and space.

The comprehension of this complex arrangement is crucial for understanding the dynamics of the diversity of food and agri-food production. The development of a wide variety of agrarian systems unrolled into a number of embedded constructions of particular realities involving food, from systems with high labor employment, small areas,

and family use, to large tracts of land, highly mechanized and owned by multinational companies.

As these multiple agri-food systems evolved, societies became more complex in terms of production and consumption. As societies progressively started to transition from rural communities to urban and densely populated areas, food demand also changed. Some massive agricultural changes boosted production to provide food for the new boroughs near castles in the Middle Ages; however, the population remained predominantly rural until the 18th and 19th centuries, which brought an unprecedented agricultural boom. This period's output significantly increased production per area in English farms compared to others (Allen, 1994; Mazoyer & Roudart, 2010). This period characterized the first agricultural revolution of modern times.

A second moment between the end of the 19th century and the mid-20th century brought motorization, mechanization, mineral fertilization, and specialization, changing the function of food in societies permanently, reducing it from its cultural role to the mere role of feeding the growing urban masses. The new characteristics of functions and agrarian structures put food in a global commodity perspective, changing the agri-food market.

The food market has also changed over time. If, centuries ago, food was more related to social and cultural construction, in modern times, food is either a necessary input for the great mass of workers or a luxury embedded by the allegory of three-star chefs as an item for the benefit of a few.

The necessity of satisfying the hunger of massive urban crowds in the wake of industrialization led to a standardization of agri-food products, which lost their identities and cultural significance over the years. Later, in the 20th century, the improvement of this centuries-old process would find a basis in Taylorism, affecting food production and leading to Fordism in the agri-food market (Bonanno & Constance, 2001).

Therefore, the modern agri-food market, dissociated from embedded cultural aspects, is simplified by the intrinsic matters related to commodity production, which could be more easily explained by orthodox economics. However, as a counterpart, there is an increasing demand for other food sources, such as those related to culture, geography, and historical meaning—for instance, geographical indication (GI) products.

As with the ways in which people have fed themselves over time, the market has also changed, from community trading of goods, followed by the regional exchange of food, to modern commerce, with commodities such as coffee and soybeans on stock markets.

Furthermore, the comprehension of how institutions influence markets is crucial to understanding their operation.

Much work has been done on economic issues pertaining to specific crops, on the political economy of agricultural goods trading, and even approaches relating to niche markets. However, little has been debated with regard to sociological approaches to economic matters. A single approach to study such markets cannot explain the richness and complexity of their diversity.

The core theoretical question of this paper concerns the GI agri-food market's construction, and how institutions shape it according to power interests. However, markets are not all the same; therefore, they cannot all be analyzed using the same paradigms. Here, the proposition is supported by Allaire (2009, 2010, 2018) that markets—especially food markets—are complex institutions, and are shaped by social construction. Thus, their analysis requires a more in-depth approach to their functioning, such as economic sociology to examine the complexity and diversity of different agricultural systems.

Critical theory in agriculture has been applied to specific and important themes concerning the rural environment. Its use is relevant in pedagogical processes in order to demonstrate the relevance of the hegemonic discourse (Freire, 2018; Hartmann & Martin, 2021), in the study of the behavior of social movements in face of the inherent accumulation of capital in capitalist societies (Cini et al., 2017; Hardnack, 2019), or even in dynamics of agrarian changes in local contexts (Jacka, 2018). However, it is in the context of the agrarian question, peasants, and the impacts of globalization in the 21st century that CT is most vital in the development of research (Bernstein, 2006, 2013; Borras, 2009; Byres, 2016; Levien et al., 2018).

The question is: what drives GI agri-food markets? Or, in other words, how do institutions act towards agri-food markets? Although grounded theory supports most of the works concerning agri-food markets, developing concepts and deepening the approaches from a theoretical spectrum is necessary. In this sense, this work addresses the development of such markets based on agrarian and critical theory (CT). Thus, supported by Gramsci's and other critical theorists' arguments about market institutions, we aim to explain how some regions developed differently from others in this niche.

Therefore, the purpose of this work is not to present new data or empirical analyses but, through dialectics, to present new insights and perspectives on the construction and development of agri-food markets—specifically GI. The design of these products and

their market has been debated for some time. However, there is also a need to rethink and discuss the forms of production, as well as the causes and consequences of production models. Thus, the option of theoretical confrontation, addressing the global history of food construction, should add depth to the debate and raise new questions regarding the direction of global food production.

The debate over forms of production and consumption has been gaining attention and prominence from a sustainability perspective. The main challenge is to unravel the origins of the problems in order to propose action to achieve fundamental changes. However, few studies have been devoted to deepening the understanding of how food markets are created, with due consideration of the complexity of their object of study. Therefore, it is necessary to provide possible ways to make this approach more assertive and accurate. Furthermore, this work seeks to provide a debate over existing paths of discussion of the agri-food environment.

The concept of food and consumption as social constructions is a central theme of this paper. Thus, as social constructions, this work considers different economic approaches to investigate the agri-food markets' economic problems. To do so, this work analyses GI agri-food market formation through the lens of critical theory, explaining the development of markets based on the construction of institutions favoring regional elites.

Therefore, this paper aims to provide new conceptual and theoretical insights on the institutional mechanisms and historical processes of agri-food market construction towards power interests. Supported by critical theory, it aims to contribute with studies dedicated both to those interested in agricultural markets and to policymakers and practitioners in the conduct of policies aimed at rural development.

Firstly, this work presents agri-food markets in terms of agricultural systems, cultural aspects, and compelling implications for markets. The following section presents theoretical and empirical tools used by researchers to try to explain markets. Tools such as critical theory and the institutionalism perspective proposed by economic sociology enhance the discussion of the logic of market operations and complexities.

Later, this work discusses the findings between the convergences of the theories used and the different existing markets resulting from productive diversity. These meeting points are subsequently adapted to the concepts of hegemony, elites, and institutions.

Lastly, this work summarizes the findings, pointing to future pathways, and giving perspective for applications and possible usage by market actors in the pursuit of market improvement.

2.2. Methods

Humanity has always discussed food's origins, as well as its market and intrinsic human relations. However, all scientific approaches to debates regarding food are significantly recent. Many works have been conducted to reveal the engines of markets and how they operate, from seeding, to commerce and, lastly, consuming habits. Nevertheless, few studies have sought to understand the sociological issues of agri-food market construction. Thus, this work aims at providing explanations of agri-food market construction based on critical theory.

To achieve the proposed objectives, this paper dialectically analyzes the formation of agri-food systems. The analysis was carried out through the temporal reconstruction of the forms used by humanity in agriculture, exposing the sociological and economic concepts for these phases, and confronting them with the involvement of institutions in shaping these systems. From the perspective of the critical theory of sociology, this work shows the forms of construction of existing systems, and points to the reasons for such conformation. The choice of critical theory as an analytical path is based on the explanatory capacity of historical materialism.

For this work to face and fulfill the task of conceptually discussing the institutional mechanisms that exert influence and establish hegemonic visions of agrarian development, it is necessary to set the adopted parameters. Since this is not a literature review, the references do not follow a specific timeframe or database. Thus, the work is divided into the following themes: agri-food systems, the economics of agriculture, rural and economic sociology, globalization impacts, and agri-food markets. This thematic separation is crucial for selecting the works consulted. The different aspects that influence the deep analytical perspectives that permeate the hegemonic common sense are noticeable and differentiable. In each subsection, the basic concepts of the subject are presented, followed by its agrarian application and a discussion of how CT can be applied to it. Thus, this work must be understood as not just the sum of its parts, but the exponential result of its embeddedness. Therefore, each subject's key works, precursors, or transformers were approached for conceptual discussion, touching on the necessary essence of each subject, without losing the significance of the dialectics.

The investigation of markets without due consideration of their complexity can result in risky mistakes. It is crucial, then, to consider the peculiarities of production systems, such as the historical and cultural consumption aspects that influence this market. This,

centered on critical arguments, demonstrates how agricultural systems of food production and commerce develop from different agrarian systems according to hegemonic interests and the embeddedness of institutions and elites.

In order to properly approach this issue and understand the functioning of modern agri-food markets, the main aspects needed to be discussed. Thus, this paper is divided into two main sections:

The first section regards the agricultural systems of production; it starts by detailing the cultivated system's influences and the social productive system, as well as their consequences for the products. Then, by structuring the systems, the work goes through the history of agri-food production, establishing a notion of intrinsic societal relations and food functions. Subsequently, with a historical construction of changes in productivity logic, the paper works through the transformation of food's cultural and functional roles in society.

The second section regards the main aspects of critical theory and institutions. The approaches of specific literature to the matter are vital to a thorough comprehension of the subject. As markets are social constructs (Fligstein & Dauter, 2007; Granovetter, 1985; Smelser & Swedberg, 2010; Steiner, 2017), they must not be understood only as a matter of supply and demand. Moreover, the more complex the relations of the social networks and the actors involved in the construction of the market, the more factors must be taken into account.

As such, within the second section, this work presents an economic approach based on classical economics, political economy, and economic sociology. In terms of classical economics, this work presents the main concepts of competition—vital for market comprehension. Subsequently, this paper considers political economy as a tool for agricultural market analysis; it includes other elements in a macro-level approach, allowing a broader vision of reality, such as supply chains (Swinnen, 2007), value chains (Josling, 2006; Meloni & Swinnen, 2018; Swinnen & Kuijpers, 2019), and political factors (Barjolle et al., 2017; Garrone et al., 2019). In the last part of the section, this paper addresses economic sociology and discusses agri-food markets. This is an approach that attempts to understand the multifactorial influence of performance (Callon, 2005; MacKenzie, 2008; MacKenzie & Millo, 2003), networks (Burt, 2021; Granovetter, 1985, 2018), and institutional perspectives (Fligstein, 1997, 2008; Powell & DiMaggio, 2012; Stone Sweet et al., 2001).

In the last part of the section, agricultural systems are confronted by critical and institutional theory. In this way, each approach gives a more explicit meaning to analysis according to agri-food production's evolution. By doing so, this paper aims to analyze how markets' development represents the interests of elites in each region.

2.3. Results and Discussion

2.3.1. Agri-Food Systems

Agriculture has been crucial for the development of humankind. Since the Neolithic period, when *Homo sapiens* learned to domesticate species of plants and animals, they began to transform themselves into cultivator societies. This transformation of the environment from the original represents the Neolithic agricultural revolution. Such change leads authors such as Childe (1936) to affirm that this was the first revolution to transform the human economy.

The possibility of settling down in a particular place and producing one's own food was, in fact, revolutionary, changing the dynamics of the whole world. No species had done it before, and it allowed small communities to be born and become societies. The spread of this model of life happened differently across the world. The cultivated species and animals were different and adapted differently in each place. This difference implies two main subsystems of agriculture: a cultivated ecosystem, and a productive social system (FAO, 1999; Mazoyer & Roudart, 2010; Torres et al., 2015; Vieira et al., 2015; Xie et al., 2015).

These two subsystems define the characteristics of food, as well as its social dynamics and economic environment. It is crucial to understand the concept of what food represents in all of its meanings. Food is not just what one eats; it is a product of thousands of years of interactions between humans and the environment. Furthermore, it has consequences for the formation of societies, economic dynamics, and culture. The following section of this work details both subsystems.

According to the authors of (Mazoyer & Roudart, 2010), the cultivated ecosystem deals with a set of practices and land use—direct and indirect—that affect soil fertility, its physical aspects, diversity, and any type of practice that changes its conditions of use and/or its surroundings. Factors such as the intensity of use and the techniques employed

have a variable influence on both plant and animal production. This comprehension is set by the sum and interrelation between subsystems that do not exist independently.

On the other hand, the productive social system, according to the authors (Mazoyer & Roudart, 2010), represents three main aspects of production: men and women, including labor force, knowledge, and savoir-faire; inert means, such as equipment and tools; and living matter, such as plant and animal species. The geographically localized combination of these factors, along with the type of usage, technical, economic, and social definitions, allows a theoretical construction of agrarian systems' dynamics, as Thom (1985) pointed out to the value of systems' taxonomy.

Therefore, the development of a theory of agrarian systems is crucial for analysis. Despite the conceptual differences, these two are the core of these complex, structured, well-established subsystems that sustain a theoretical structure. Agrarian systems develop as a result of general changes in the form of production, the employed labor, the adopted techniques, the productive capacity, or the purpose. They can develop in an unequal, contradictory manner, or even go into crisis. According to Mazoyer and Roudart (Mazoyer & Roudart, 2010), when the changes in those factors engender a new cultivated ecosystem, an agricultural revolution takes place.

The theory of agrarian systems differs on some level from spatial production theory (Lefebvre & Nicholson-Smith, 1991), in that the former relies on a view that the rural regions are organisms characterized by resources, rights, society, and capital, or the three-dimensional rural space system based on culture, society, and material (Halfacree, 1993), for example. Nevertheless, both theories are complementary and based on the work of Ren (2021). This work adopts Mazoyer and Roudart's (2010) viewpoint, based on the agrarian system theory, which builds multilayer factors that influence the agrarian scenario, adopting a sociological perspective that characterizes rural spaces during space and time, considering all determinant factors.

In ancient agrarian systems, the concern was only to produce enough food to meet the family's own caloric needs, and perhaps those of the community in which the individuals were inserted. The development of agri-food production evolved differently worldwide. Soil, climate, availability of plants, and cultural habits influenced the necessary practices to feed the people better. Some of them, even in the Neolithic period, stood out, whether they were more irradiating—such as the center of the Near East, the Central American, Chinese, and New Guinean focuses—or those less irradiating centers such as the South American, North American, and Thai (Mazoyer & Roudart, 2010). Such

dispersion of agricultural development throughout history is so relevant that some researchers have theorized its relationship with civilizations' linguistic and cultural development (Bellwood et al., 2007).

The close relationship between cultural development and food has led to the characterization of certain products in specific regions. In addition, ancient records attribute qualitative aspects to the origins of some products, such as Lebanon cedar, Corinthian wine, or Brindisi oysters. Thus, historically, peoples' production, preparation, and consumption of food have been related to agrarian systems specific to each region. Some even gained notoriety for having specific characteristics that differentiated them from others.

However, the world has changed over the centuries. Civilizations have become less rural and more urban. Throughout history, some agricultural revolutions were crucial to multiply food production and favor urban centers. These revolutions allowed more outstanding production in the same areas due to new technologies. Therefore, less labor force was needed.

Revolutions such as the Neolithic, with sedentism, were significant. Even in antiquity, agrarian systems with the use of fallow and light traction allowed exponential gains, followed by the use of heavy traction, which brought about a new revolution in the Middle Ages. However, at the end of this last period, there were differences between regions—especially in Europe. With the use of new equipment more suitable for cultivation, productivity gains were accentuated, which led to changes in the social relations of the land and the structure of the domain. This resulted in the concentration of areas in the possession of dominant classes, characterized by an individualistic logic, starting to employ labor in place of land possession by the working class. This practice reduced the need for territorial expansion for agricultural production, thus replacing slash-and-burn methods.

A portion of the population started to concentrate on other functions in urban centers related to rural activities, such as boroughs. Thus, with this new urban mass, after introducing liberal ideas and the allowance of broader practices of production, trade, and circulation of goods and people, a new era was taking place in Europe. This new era began with a new agricultural revolution—the first of modern times. The substitution of systems without fallow for rotating crops with forage and grain provided new impetus in food production. This gain provided the industrializing cities with the necessary supply and, consequently, also provided more appropriate implements to increase production.

The growing urban concentration sustained by the supply of these new productive forces boosted the industrialization of large centers until the end of the 19th century. This achievement enabled the development of productive chains linked to the land, such as textiles, beer, sugar, and alcohol, which was only possible with abundant productive surpluses. The limitations of the production system were concentrated on the tools, since the properties used were mainly private, and labor was also employed, despite some regions remaining focused on family farming, lacking technology and tools. This all changed substantially with the Industrial Revolution.

With the Industrial Revolution in the 19th and early 20th centuries, not only industry and commerce were affected. New agricultural implements such as plows, seeders, and harvesters entered the agricultural equation, transforming the European and North American scenarios through the new steel technology available. However, at this point, another parallel phenomenon also occurred: Fordism, which also impacted the agrarian sector and changed the logic of food production. From that time, the world started to adopt a Weberian perspective of rationalization, which also applied to agriculture and food, although lacking a general theory for Fordist agriculture (Fine, 1994).

Commodities are defined generically as any goods that can be traded. However, the term is commonly used to refer to raw materials or goods with aspects and characteristics so uniform and abundant that they do not depend on the place of production. Therefore, they are traded in large volumes, with a constant flow and circulation throughout the planet. This also implies that, due to both the quantity available on the market and the intense standardization, their producers are only price-takers. In the agricultural case, coffee, soybeans, wheat, sugar, alcohol, corn, and orange juice can be categorized as commodities.

Beyond Gramsci's (1971) concept of Fordism—of extreme rationalization of production and consumption through cultural and political means, based on Taylorism—this new logic of conceiving the global system also affected agrarian systems. The main argument relies on the transformation of the production and consumption paradigm towards massification. The process of commoditization changed the perspective of food around the globe.

Authors such as Kenney et al. (1989) argue for the contribution of American agriculture to the production and consumption markets of undifferentiated commodities, while Potter and Tilzey (2005) point to neoliberalism, neomercantilism, and multifunctionality on the European side. Both works see the succession of events from

Fordism, post-Fordism, and globalization as a global phenomenon of standardization and homogenization of food, endorsed by institutions and states that affect the market unevenly.

This sequence of phenomena that affected rural regions, agricultural production, and food consumption resulted in reducing product diversity and local factors' influence on the product. The effects of massification and standardization are based on efforts to minimize differences between products so that they can be commercialized on a global scale. With the minimization of differences between products globally, there has also been a consequent change in agrarian systems to meet the productive demand. Due to the new logic of overproduction, there is homogenization, and consequent decreases in the number of species consumed, varieties produced, and differences in production. Thus, the forms of production are reduced to as few varieties of agrarian subsystems as possible. Mechanization becomes predominant, reducing differences in cultural treatment, the influence of edaphoclimatic conditions, the need for uniformity, and the social factors inherent in the attribution of value, reducing the relative workforce in the system.

However, according to the theory of agrarian systems, changes can occur as a natural part of development, despite the agrarian systems' consistency. These systemic changes have triggered shifts in trade blocs, globalization, liberalization, agro-technologies, societal demands, and climate change (Alexander et al., 2015; Araya et al., 2012; Galati et al., 2016; Hanh et al., 2017; Jlassi et al., 2016). The more specific the system, the more complex it is. For example, agri-food producers with geographical indication (GI) registration base their products' differentiation centrally on natural, human, and historical factors (Barham, 2003).

The first item—the natural factors—is the concept of an "essential link between the location in which a food or beverage is produced, and its quality or other consumer attributes" (Josling, 2006, p. 338). The second, known as savoir-faire, refers to the techniques, materials, and production methods used. The last considers immeasurable elements attributable to the producing region's culture or history, which are applied to the product, making it notorious. Finally, the sum of the three composes what Allaire (2018, p. 63), based on the work of Goodman (2002), qualifies as "the immaterialization of food and the institutionalization of quality"—a concept that considers environmental aspects such as soil and climate, but also cultural and human factors, characterizing intrinsic characteristics of agri-food products, and capable of providing specific regional qualities.

Therefore, such elements are central to the creation of more flourishing and more complex agrarian systems. Each of them directly influences the product, and provides a myriad of combinations that generate unique products.

The natural factors are the environmental aspects that qualitatively influence the products; this is what Josling (2006) refers to as terroir. However, this is not entirely accurate; it represents a set of environmental factors—such as soil, climate, light, altitude, physical elements, and others—that yield specific characteristics to the products grown there. It is the foundation that gives uniqueness to each and every product coming from the field. It is so crucial and particular to the characterization that it cannot be reproduced elsewhere.

Savoir-faire relates to the labor put into practice. The concept refers to the human factors that can produce "typicity", or unique, traditional character (Barham, 2003). It is the work of cultural bias in a geographic location that implies a historical process of knowledge construction over time, as endorsed by Guy (2011).

The last item regards the cultural aspects that are embedded in the construction of such products. Sometimes referred to as "history" (Barham, 2003; Barjolle et al., 1998), it is more appropriately called culture, since history is part of cultural construction. Despite disagreements on a definition of the concept, this work adopts the understanding of Tylor (Tylor, 1874), addressed by Abdel-Hadi (2012, p. 12) as "that complex which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society."

Therefore, in spaces where the simplification of systems predominates, agri-food production is based on commodities in large portions of land, tending not to have areas for production imbued with the necessary conditions for more complex products, such as those with GI. Thus, there is a tendency to widen the scope of prevailing and profit-maximizing systems in capitalist societies. Hence, with the decrease in the capacity for interaction between individuals in the rural space due to the increase in crops, decrease in the number of farmers, reduced exchange of experiences, and suppression of environmental factors in food, there is less terroir variability and, consequently, a smaller market for these products. In the long run, this fact tends to compromise the variability of these products and their markets.

Consequently, the direction of these markets is profoundly affected by the guidelines and regulations promoted by local, national, and regional policies. In this way, the development of agricultural markets centered on the production of commodities, or of

products with culturally added value, is constructed according to the predominant ideas of the institutions. Thus, institutions that are socially oriented towards consolidating the maintenance of hegemonic systems tend to suppress systems that favor differentiated products and markets in the long run. Therefore, the maintenance or alteration of these systems must, necessarily, go through the institutions' composition to represent the intended interests.

There are discussions in academia about the concept of terroir containing other factors. Terroir is a traditional concept widely used to describe the particularities of GI products; it is widely used in the wine market, although it can be applied to all agri-food products (Dabbous-Wach et al., 2021; Kyraleou et al., 2021; Millet et al., 2020). It regards the relationship between the product's quality or taste and its geographic origin (Van Leeuwen & Seguin, 2006). However, the concept of terroir addressed by this work is close to that used by Barham (2003), which considers not only environmental aspects reflecting the product's quality, but also human and cultural factors that give particular attributes to agri-food products or wines. Therefore, dividing the concept into three parts allows for a better understanding of all influencing factors, broadening the comprehension of the complexity embedded in these products. Indeed, environment, savoir-faire, and culture are embedded concepts that comprise the GI market. Such products go beyond Marx's comprehension of *homo faber*, due to a complex, embedded paradigm of equally complex agrarian systems, needing a consideration of their roots in order to fully comprehend the issues of this market. To summarize the understanding of the differences in the formation of both types of agri-food market, Figure 1 illustrates the conceptual chain of both paths.

Figure 1. Opposing chains of agri-food market construction.

2.3.2. A View from Economics

Economics has been on the agenda as a science since the 18th century, sometimes associated with sociology, and sometimes dissociated from it. Initially, classical economics was treated as a pure and liberal science by figures such as Adam Smith (2010). Later, it was treated differently, via more critical views on its function by Marx (2015) and Keynes (2018), which brought new thoughts on employment matters in macroeconomics.

Stein (2021) and Allaire (2010) argue that the tools provided by mainstream economics are limited, and cannot provide sufficient elements to support development. Despite the charge of these elements being more related to institutions and structures of concepts, it brings an essential element of reflection on the role and consistency in using these tools.

Since Adam Smith's *The Wealth of Nations*, in 1776 (2010), economics has been considered an independent subject. The aforementioned book is a landmark text on economics, and by discussing the issues of the division of labor, productivity, and free markets, is still vital reading on the subject. Moreover, the book was written during the Scottish agricultural revolution (therefore embedded in this context), seeking to form an

economic theory opposing the theories of mercantilist foundations that could no longer respond to problems arising from new realities, such as protectionist tariffs on precious metal reserves.

As approached by Say (2017), Ricardo (2012), and Mill (2011, 2014), classical economics is based on liberal perspectives of the market. Significant matters that ground such thoughts rely on self-regulating systems, in which external and state interference is not only unnecessary, but unwanted. Classical economists comprehend that such entities and measures limit and disrupt the market's perfect function, and that the market is governed by its own independent production laws and trade, needing no other external factors, and reaching its natural optimum by itself. Such understanding is best summarized by Smith's most famous analogy developing the "invisible hand" concept, central to the *laissez-fare* philosophy—the premise of neoclassical economics.

Regarding agrarian issues, Smith (2010) understands that this activity is less prone to a division of labor than manufacturing, concluding that it does not result in significant differences in development between countries. However, he understands that such activity is more desirable than industrial work in the context of North America, due to land availability and owner control over the process.

Smith's view reveals a singular comprehension of the agrarian system, despite giving due importance to agriculture. He understood this system as complete land control and ownership along with total separation of labor between the urban and rural environments. This view shares the worldview that characterized the time; it endorses a utilitarian conceptualization of land use maximization. Moreover, by pointing to complete control as a positive asset, along with the large availability of land, it converges with the capitalist-based global system in formation at that time, based on profit maximization. As such, Smith understands that subsistence is of primary importance to long-term industrial-based economic growth; however, he also understands that a utilitarian view of the land function manifests that land should be comprehended as an asset for profitable use only by owners discharged from food sovereignty. Furthermore, by endorsing the use of large portions of land towards maximization, the author expresses the thought of land owners and elites of the time.

On the other hand, neoclassical economics was first quoted by Veblen (1900) to set new perspectives based on new ideas of granting value based on the relationship between the material desire to acquire a specific good and the costs of production. These new ideas were based on the thought of maximization of utility and profit, based on rational choice

theory, best defined by Arnsperger and Varoufakis (2006) under three axioms (despite their observations on the development of this school of economic thought): methodological individualism, methodological instrumentalism, and methodological equilibration. In sum, based on the lack of pluralism, neoclassical economics reduces the analysis of reality into previously squared theory, and does not fully consider the concreteness of all social facts. However, it prevails both in academia and in public and private institutions.

The liberal view proposed by classical and neoclassical economics supposes that the market works more adequately when there is no or minimal regulation, since it develops naturally towards an optimal equilibrium, provided by the free competition of economic agents. Therefore, it is centered on a utilitarian view towards maximizing gains and specialization of functions through division of labor. The premise of self-determination of individuals towards their own gains, although legitimate, does not aim at social or collective gains as primary intentions.

Much of economics stems from Marshall's "perfect markets" model (1997). Based on the ideas of classical economics, Marshall believed that with an abundance of buyers and sellers, the market tends towards equilibrium. Despite providing good didactic models, such as the formulation of the model created by Pareto (Pareto et al., 2014), and facilitating the understanding of economic concepts, their ideas were criticized both by Hayek (1996), who understood competition as a process in constant change, and Granovetter (2018), who understood that markets are determined by multiple factors, making such perfection impossible. From both sides, one can conclude that markets are not perfect, and that models can illustrate ideal but unrealistic situations. However, this model advanced a positivist, economic liberal ideal that less regulated markets tend to function better. In practice, they are determined by institutions that aim to maintain the status quo, creating maintenance tools for their holders.

The determining conditions of these perfect markets have been known for a long time. Firstly, that there are many buyers and sellers, so there is no personal influence in the market (atomization). Secondly, that there is a perfect substitute for the good on the producers' side (homogeneity). Thirdly, that there is free movement of goods and productive facilities for any party (mobility). Fourthly, that there is no barrier to entry into the market (permeability). Fifthly, that there is no imposition of any part of price holding, which results from the market itself (free price flow). Sixthly, that no social actor has information different from the others (transparency).

Within agri-food markets, commodities configure the nature of goods that are closest to the ideal model. These goods, as previously stated, considering their intrinsic characteristics, contemplate simplified realities in which ceteris paribus is best applied. These sorts of goods reduce the complexity of food, fitting more adequately with analysis that does not consider elements beyond the surface, and deepens through the causes, reasons, and hidden elements of the social factors. However, commodity production systems are designed only to maintain the hegemony of agrarian elites, in detriment to the production of food imbued with culture and destined for food sovereignty.

Since the first appearance of the term "political economy" in Montchrétien's work (2017), the embeddedness of the state, economy, and society have become clearer, as noted by Mayntz (2019, p. 5). The Weberian concept of the term is rooted in government participation and intervention in employment and growth. Balaam and Veseth (2020), for example, argue that the conceptual difference between political economy and economics lies in international trade. However, rooted along with economics, the political economy also centers the causes of social actions on self-maximization of benefits, rooted in utilitarianism, limiting its explanatory capacity.

Nevertheless, in the 18th century, François Quesnay—one of the pioneers in the field—reflected on the importance of agricultural production. He attributed value to it due to the multiplication of the farmer's effort and resources, while manufacturing, services, commerce, and trade would be "sterile" (Eltis, 1975). Years later, Theodore Schultz, upon receiving the Nobel Prize in economics in 1979, recognized the relevance of agriculture, placing it at the center of world economic development (1980).

The relevance of agri-food matters to the field results from globalization. It is not by chance that it coincides with a new perspective on the state's role in the economy. In the agricultural sector, globalization resulted in the acceleration of the rationalization and mass production of goods, later adapted and optimized through Fordism. This process resulted in the massification and standardization of consumer goods. Gramsci (1971) argues that the stability and maintenance of such a production system are integral to the performance and influence of the state.

Thus, under this interpretation of the system, the state acts towards the standardization and homogenization of agri-food products, while maintaining elites' status. Therefore, the globalization processes of massification, standardization, and transformation of the food sector sustain this logic of food and fiber for the industry. Thus, there is an evident loss of authenticity and diversification, consequently reducing the

complexity of the agrarian system. This results in loss to the consumers, and simplifies the offer of agri-food products and political economy to answer the state's political and economic influence in the relations of production and consumption. As such, Benjamin (2021) points to authenticity (uniqueness) and locale (physical and cultural) as attributes that embed an irreproducible character in goods and objects. Such a concept can be easily attributable to GI agri-food in order to sum value and work as a counter-movement to a mass-culture society.

In short, industrialization also plays a role in the construction of rural development—that is, not only in agro-industries, but also in the construction of combat spaces aimed at the greater potential for maximizing profits. In industrialized societies, these appear as the main battleground. However, in nation states where agrarian elites prevail, industrialization does not develop. Thus, extensive rural estates become the most significant source of power, and their owners constitute institutions, structuring the domination of these agrarian elites and strengthening their hegemony. In this way, the production of commodities in monoculture systems tends to suppress industrial development and stifle the growth of other agricultural systems.

2.3.3. The Sociological Perspective

In order for high-quality and meaningful agri-food products to be consumed by everyone, and not just seen as "Veblen goods", they need to be affordable and plentiful. For this to occur, systems capable of producing them must be possible and desirable and, therefore, have a favorable environment for them to flourish. Such environments are the institutions.

North, in 1991, stated that "Institutions are the humanly devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)" (North, 1991, p. 97). The author understands that institutions are created to promote trust in trade, and work as an economy's incentive structure.

In other words, formal or informal institutions act in such a manner that allows or constrains economic and social development. The direction of the force exerted by institutions strengthens or weakens the performance of each sector. In any case, institutions play a decisive role in the economy's performance or, more specifically, the performance of markets. Additionally, the proper functioning of the involved institutions

in societies is decisive with regard to the performance of the markets. Oriented institutions towards specific segments determine the success or failure of an economic sector. This concept is crucial for further conclusions.

In a complementary manner, Acemoğlu, Johnson, and Robinson also address the relevance of institutions in economic and social development, by studying the purposes of institutions based on the colonization process (Acemoglu et al., 2001). The authors argued that the development of European-colonized countries performs differently due to the home country's interests. Colonization of regions for purely exploratory purposes or to enrich certain states restrains local development, as seen in countries in Africa or South America. However, in regions where colonization took place for the purpose of permanence, the institutions allowed for development, such as in Australia and the USA. The argument is based on the types of colonial policies, the feasibility of settlements, and those institutions' persistence (Acemoglu et al., 2001).

Additionally, Acemoğlu notes the influence of institutions on economic reforms. The author argues that in order to maintain privileges, interested and powerful groups act on their own behalf. However, the changes must reach not only formal but also informal institutions in order to achieve results (Acemoglu et al., 2011; Acemoglu & Robinson, 2006; Acemoğlu & Robinson, 2016).

The new economic sociology (NES) also brought essential elements that contribute to understanding of the influence of institutions on markets. Based on Weberian thinking, Swedberg (2004,p.7) defines NES as "the application of sociological ideas, concepts and methods to economic phenomena—markets, companies, stores, unions, and so on". The author, supported by Weber, describes that its object studies "both economic phenomena, as well as how these phenomena influence the rest of society and how the rest of society influences them (economically relevant phenomena)".

In 1985, Granovetter used anthropological factors, such as those of Polanyi, to develop a critical theory of the relationships between individuals and institutions in a correlated manner (Granovetter, 1985). With such relationships between them, embeddedness occurs, changing the market's characteristics. The main reason for this is that marketing behavior is based on trust and bad faith involved in the relationships between agents. Therefore, the connection of actors and institutions acts over the core fundaments of the market's functioning.

The theory of embeddedness in markets starts from the negation of classical and neoclassical utilitarian thinking, as well as from under and over-socialized views of

consumer choices. The author was concerned about the atomization of human actions. This theory is based on the behavior of humans as a result of both the social web in which they are inserted, and their own initiative, avoiding theoretical extremes.

For the development of the NSE, Granovetter relies on three pillars: that economic action is a form of social action, that economic action is socially situated, and that economic institutions are social constructions (Granovetter, 1985, 1990, 2018). Under any of them, the importance of complex analysis of a concrete economic issue from a non-isolationist perspective, but as part of a social context, is noteworthy. Alternatively, with regard to Granovetter's work, Raud-Mattedi (2005, p.65) highlights this understanding, stating that "The market, therefore, does not consist of a free play of abstract forces, supply and demand, between actors atomized and anonymous, but in a set of actions closely intertwined in concrete networks of social relations". However, even within markets, authors differ as to the most appropriate approach for each market. This is typically divided into three theoretical groups (Fligstein & Dauter, 2007; Fourcade, 2007)—(a) networks (Burt, 2021; Granovetter, 1985, 2018; White, 1981, 2018), (b) institutions (Dobbin, 1994; Fligstein, 1993, 2002; Powell & DiMaggio, 2012), or (c) performativity (Callon, 1998, 2020; MacKenzie, 2008; MacKenzie & Millo, 2003) — as explanatory mechanisms for the emergence and dynamics of the markets.

Granovetter (Granovetter, 1985) (p. 488) describes a fundamental sense of validation and market gaps in his article on embeddedness. The author, without detailing explanations of over- or under-socialization, argues that "what has eroded this confidence in recent years has been increased attention to the micro-level details of imperfectly competitive markets, characterized by small number of participants with sunk costs and 'specific human capital' investments". However, in response to this work, Raud-Mattedi (Raud-Mattedi, 2005, pp. 63–64) refers to this understanding, stating that "The market, therefore, does not consist of a free play of abstract forces, supply and demand, between atomized and anonymous actors, but in a set of actions closely intertwined in concrete networks of social relations". Still, Stein (1994) proposes that institutions (property rights included) are crucial to examining markets, and that biases can hinder even neo-institutionalist perspectives in the neoclassical economy.

Still, with regard to the NES, Fligstein and McAdam (2012) take a more in-depth approach regarding markets and institutions. The authors theorized about how institutions emerge, become stable, and are transformed to remain alive in what they call a theory of fields. This theory looks at disputes that occur at the intermediate or meso levels of

dispute, implying that actions occur within organized local groups. It is in these disputes that institutions are built, stabilized, and transformed. Thus, Fligstein and McAdam argue that institutions result from social interaction between actors that confront one another in arenas or fields, and distance themselves from rational choice theorists by attributing importance to the social construction of identities, interests, actions, and action structures. Furthermore, they argue that the groups with the most significant influence in a strategic field of action promote shared identities and meanings by appropriating material and existential resources to legitimize their privileged position in the field, forging rules that favor them and defending the maintenance of their superior resources and power (Fligstein & McAdam, 2012).

In another work, Fligstein went further and developed a theory of markets (Fligstein, 2002). Here, the author theorizes that firms, faced with competition scenarios, tend to build what he calls "conception of control", where the incumbents' business model dominates the market's way of acting (Fligstein, 2002). In the same work, he states that the creation of markets seeks stability in order to reduce the harmful effects of competition. For Fligstein, the state is a fundamental actor in reducing these harmful effects and promoting stability by acting not only through bureaucratic and legal means (2002). Sometimes, even its performance takes place through regulatory means and active participation (Fligstein, 2002).

In a third work by Fligstein, the author uses the metaphor of "markets as politics" to discuss how markets and states are intimately embedded. By dissociating the market into three phases (creation, stabilization, and transformation), he maintains that market arrangements develop around property rights, governance structures, conceptions of control, and rules of exchange (Fligstein, 2008). Among the various propositions made, two stand out for this work: The first argues that "Laws and accepted practices often reflect the interests of the most organized forces in society" (Fligstein, 2008, p. 662). The second states that "the entry of countries into capitalism pushes states to develop rules about property rights, governance structures, and rules of exchange in order to stabilize markets for the largest firms" (Fligstein, 2008, p. 661). Along with the other 14 propositions, he concludes that "Markets are social constructions that reflect the unique political-cultural construction of their firms and nations" (Fligstein, 2008, p. 670). His approach adds to the sociological approach to markets by deepening and consolidating some aspects of how states act to guarantee their interests. Thus, we affirm in this conceptual paper that for the specific context of agri-food markets, the state not only acts

in the markets, but also acts in defense of the interests of the social segments that it hegemonically represents.

One last sociological aspect is crucial in this work. Gramsci's theorization of hegemony is the glue that unites and gives purpose to the forms of construction of markets, emphasizing the different constructions in the agri-food sector. This conceptual work does not intend to extract all of the concepts and critical approaches carried out by the author, but simply to enter into what is pertinent to developing an understanding of the functioning of modern agri-food markets—cultural hegemony.

At the beginning of the 20th century, Gramsci developed the concept of cultural hegemony in a European context of intense industrialization and, therefore, of large masses of the population migrating from the countryside to the cities. He argued that this domination is usually built up due to the prestige of more powerful groups, as a result of their positions and roles in the world of production (Gramsci, 1971). Consequently, this process of domination over these groups takes place through the state (or political society) to maintain the status quo (Gramsci, 1971). The author goes deeper by asserting that this consent is given through ideological formation. Thus, the culture and values of the bourgeoisie become "common sense" for everyone, making the masses identify with it and defend their causes as their own, containing popular revolts (Gramsci, 1971).

Gramsci still distinguishes intellectuals (in what would fit better today with a concept of authority) from the countryside and cities, arguing that there are significant differences between them (Gramsci, 1971). The author's established concept of traditional and organic intellectuals (adapted by us to authorities) derives from his notion of forms of ideology. For Gramsci, the agents responsible for these forms of articulation receive these names. In their theoretical elaboration, traditional intellectuals are those most detached from the economic structure, without a necessary relationship with the social or political class. In contrast, organic intellectuals are the agents responsible for the ideological promotion of their function in the economic field, due to their similarities with the ruling classes in the political and social areas.

From the point of view of these authorities as traditional and organic categories, they present opposite influences in their relationships. While there is a vertical relationship with the exercise of power by these authorities in the field, the opposite occurs in industry (Gramsci, 1971). This conclusion implies that the exertion of power and ideological dissemination in rural areas occurs via a top-down social structure. In other words, the domination through assimilation occurs through the manufacture of consent, where the

ruling social classes exercise their worldview over the popular classes. Meanwhile, in the industrial sector, this takes place through peers, in a horizontal manner.

Both the construction of the concept through the theorization of cultural hegemony and the distinction of the relationship of influence between the authorities of the countryside and the cities inexorably compose the construction of markets. In this work, we argue that this construction of hegemony is even more present in the agri-food markets due to this relationship, and that there is still a change-resistant productive structure for the dominant groups to remain in a position of influence, privilege, and power.

2.3.4. Impacts of Globalization

As agricultural systems evolved into more specialized and simplified agri-food processes, the agricultural market also walked the same path—notably after the Second World War, through scaling up and diversification in the trade of agricultural goods (Friedland, 2004). However, these systems evolved unevenly on a global scale. Wallerstein points out how globalization affects countries differently; his theory rejects the conception of "first", "second", and "third world". Instead, he proposed a modern world system, classifying nation states in three possible positions—center, semi-periphery, and periphery (Wallerstein, 2011)—derived from dependence theory.

Wallerstein's theory is adequately applied to the functioning of agri-food markets in the modern world. Nation states that play a leading role in the agricultural sector seek to do so through soy, corn, and sugar commodities. Such agricultural cultures are only possible with the simplification of agrarian systems, and are exercised in large portions of land—often in monocultures represented by high concentrations of rural properties.

The nation states situated in these positions are located in the periphery and semi-periphery of the world system, supplying the countries of the center with food and primary products, and acquiring these more industrialized products. On the other hand, due to industrialization, countries in the center of this system manage to buy primary products from countries on the periphery of the globe, and dedicate themselves to producing food in more complex agrarian systems and, consequently, in more complex agri-food markets. Hence, globalization conditions the geography of the production process and the market for agri-food products, consolidating the exchange relationship. This relationship reinforces the thesis that the central countries started to occupy distinct and privileged positions relative to the others in the world system, due to prioritizing the industrialization of their economies.

However, this intra-nation relationship reproduces asymmetric effects in the construction of agri-food markets. Due to the characteristics of the productive systems inherent in these markets, globalization impacts the world's production and food systems, where peripheral nations have the development of complex markets compromised due to the development of capitalism, causing an unequal agri-food development between nation states.

The construction of a global market guided by the center–periphery logic places agri-food production in an asymmetric perspective. On the one hand, countries in the periphery are characterized by the production of primary products, or commodities, to supply raw materials to the central nations. On the other hand, the more industrialized and central countries consume these goods and export value-added products. In this way, the international market is built with disproportionate weights in terms of values. Thus, considering these characteristics of production systems, countries on the periphery and semi-periphery of the global system tend to maintain this format, due to the hegemonic process that benefits the ruling classes. Therefore, in a world system of low mobility between nations for a commercial balance, the tendency towards alterations in the productive systems becomes equally reduced.

Roland Robertson states that the ideas, cultural forms, and goods reach the world. However, due to the cultural diversity of each place, those global forms are perceived differently and adapted to each reality. He calls this phenomenon "glocalization" (Robertson, 1992). In the GI case, this phenomenon is well observed in cheese, for example. The Parmigiano-Reggiano cheese is a protected designation of origin (PDO), made in the Italian regions of Emilia-Romagna and Lombardy. When Italian immigrants went to South America at the beginning of the 20th century, they brought their cheesemaking knowledge along with them. This resulted in analogous cheeses called Parmesão, in Brazil, or Parmesano, in Argentina. However, according to EU regulations on GI products, neither is recognized as the same as the original.

Boaventura de Sousa Santos, on the other hand, points to the idea of an uneven conflict between hegemonic states and ideologies on one side, and collective dominated groups on the other, as counter-hegemonic (2015). According to the author, this polarized position is due to several areas of knowledge based on epistemological exclusion. The unequal struggle pushes the dominant models and interests of the North towards the South of the globe via an unfair and hegemonic social hierarchy of knowledge, stretching social inequality from the perspective of Boaventura de Sousa Santos or, from Wallerstein's

perspective, in the dominant models and interests from the center to the periphery of the globe. By disregarding and invalidating other forms of thought and cultures, a standard model for the construction of science and society is established, consolidating the body of knowledge and possibilities for building society. Thus, the author concludes that modern capitalism needs alternatives to eradicate inequalities, and that this would only be possible with what he calls "global cognitive justice". The thinking of Sousa Santos is consistent with Wallerstein's.

Thus, the causes and effects of the process of globalization in the market and the agri-food production structure become clear. The position of countries regarding the function and products in the world system affects how countries produce food, the type of food, for whom this market is constructed, and the biggest beneficiaries of the consolidation of this market.

According to Milton Santos (M. Santos, 2015), globalization is characterized by a hierarchically structured market articulated by hegemonic, national, and foreign firms, commanding the territory supported by the state. This is precisely how globalization impacts markets. The consolidation of agri-food systems aimed at maintaining the current status quo, both in the periphery and in the center of the world system, makes the dominant interests in all parts become hegemonic.

Thus, colonization also plays a role and generates consequences. Settlement- and permanence-oriented colonization is capable of promoting development in nations in a less predetermined and dispute-oriented way. In exploration-oriented colonization, the formation of the agrarian structure is previously established and divided for the elite construction. This fact supports the model that places these same nations in peripheral conditions.

2.3.5. Agri-Food Markets

Starting from Ilbery and Kneafsey's (Ilbery et al., 2000; Ilbery & Kneafsey, 1999) studies regarding specialty agri-food markets, the authors concluded that this results from interactions between producers, customers, and institutions. This embeddedness does not occur only by chance; the involvement of these three aspects sustains a market that cannot sustain itself with customers and producers alone. As such, the present work is dedicated to discussing the relevance and influence of the third aspect of this market: the institutions.

From the mentioned definitions of perfect markets, it is utterly clear that there is a significant variation in production models among agricultural markets. In the first case, large agricultural markets that produce commodities—such as sugar, soybeans, or corn—are significantly closer to the definition of the perfect competition conditions. There is extreme homogeneity between products, mobility, volatile prices, a slight permeability of participating actors, and information about production, logistical, and stock conditions is known to any buyer or seller.

On the other hand, there is another relevant agricultural market. Local and regional products are part of agricultural product niches that do not fit into this market. Such niches are the definition of imperfectly competitive markets, full of details that need to be looked at in depth, with few participants with sunk costs and investments in specific capital through the terroir of each producing region. Therefore, the natural, evident, and unique path for these agricultural markets is to fit within the approach proposed by the NES.

Both economic and agrarian matters present a myriad of complex forms of approach, as seen previously. On the one hand, agrarian systems vary in their complexity, subject to environmental conditions, human influence, and cultural factors. The more complex the system, the more unique the resulting products, and the more complex the markets become. On the other hand, the distinction of how to classify the analysis is not a simple toolbox. However, the more subjective those analytic tools are, the more details can be perceived and, therefore, the more capable the tools are of in-depth analysis. Sociological tools, for example, allow for the examination of social actions through magnifying lenses, with more detailed visualization and understanding. This facilitates the extraction of information about the functioning and its causes, in addition to the results.

Agricultural practices developed over time; however, the development of these practices is asymmetrical in geographical and chronological terms. Thus, not only environmental conditions, but also historical events and cultural aspects, pushed specific regions towards specialization or diversification of technological advances, practices, production, changes, and the role of agriculture in each society. The reasons for such differences were previously discussed in this article. However, there are still some aspects of agricultural markets that require attention.

Thom (1985) argued that adopting a taxonomy of systems is imperative for the proper analysis and development of a theory. Thus, the creation of a theory of agrarian systems by Mazoyer and Roudart (2010) allowed for the deepening of the subject. Furthermore, the distinction of systems into the cultivated ecosystem and the productive social system

supports their theory. These two components suggest that agrarian systems can only be altered if at least one of them is changed.

Both components are embedded. The cultivated ecosystem relates to a set of practices, land use intensity, and environmental relations, and varies as socio-political moments vary. For example, when times demanded more food production as the population grew more rapidly, there was a need to intensify the land use and apply techniques to extract more from the environment.

Productive social systems are no different. However, the need for the development of new tools and equipment, selection of animals and plants for growth of production, and the labor force dedicated to it also changed according to socio-political demand for more food. However, as the demand over time has changed chiefly in quantitative terms, the changes in these two components have also changed (cultivated ecosystem and the productive social system supports) in qualitative aspects. Nevertheless, the rise of a new agrarian system does not imply the demise of the existing ones; different agrarian systems can coexist. However, there is a tendency for specific systems to prevail. This depends on the combination of forces capable of exerting political pressure. According to Gramsci (1971), within the world's capitalist system, such pressure is exerted by the holders of economic power through cultural hegemony. Therefore, any type of change in agrarian systems depends on the ability to exert political pressure to change them, since the institutions have the tools capable of influencing this process (Fracarolli, 2021b).

Although there are differences in conception at the start of the Anthropocene, this work chose to consider the dawn of agriculture as the first agrarian system constituted. However, even in discussions of origins, scholars consider the relevance of all the socio-ecological complexity of agri-food systems (Reisman & Fairbairn, 2021). The complexity of the systems hinges on the impossibility of reproducing terroir-related quality, regardless of intrinsic regional characteristics. Therefore, standardization of agri-food products over a wide geographic area, reducing human, cultural, and environmental factors, implies a reduction in complexity.

Globalization started a process that improved Fordism (Bonanno & Constance, 2001). This process resulted in a struggle between local and global agri-food systems, and pushed smallholders and communities towards niche formation (McMichael, 1996, 1997). The process of globalization is a result of modern capitalism, and has goals of standardization and homogenization at its core. Thus, the agri-food products that prevail in the current capitalist system are commodities that are only possible in low-complexity

agrarian systems. On the other hand, complex agrarian systems result in non-reproductive agri-food products in other locations, due to characteristics arising from cultural, human, and environmental elements. The GI represents the complexity of such products from complex systems. The materialization of terroir is institutionalized through the granting of intellectual property rights. Therefore, through its institutionalization in GI, terroir constitutes a niche market, deserving a more in-depth approach (Fracarolli, 2021a).

As shown in the discussion in the previous section, economics enables and is of great analytical use to the agri-food market. However, as Smith (2010) initially observed, economics endorses a utilitarian worldview by maximizing land use. The theory provided in *The Wealth of Nations* by the same author converges with the capitalist-based world system in formation at that time, based on profit maximization. Smith understands that individuals act for their own benefit by devoting efforts and resources to it. The denial of secondary interest of societies is crucial to understanding the principles of classical economics; it is sustained by individuals, lacking intent for the collective good. The core of classical and neoclassical economics is based on rational choice theory—a thesis that conflicts with the foundations of complex agrarian systems embedded with human, natural, and cultural factors.

As Arnsperger and Varoufakis (2006) previously noted, the three axioms of the theory are methodological individualism, methodological instrumentalism, and methodological equilibration. Thus, these theoretical foundations properly match the conditions of perfect competition. Commodity conditions such as atomization, homogeneity, mobility, permeability, free price flow, and transparency, due to their characteristics, are less easy to influence and, therefore, more suited to classical and neoclassical tools.

Although also utilitarian, political economy has as its object of study the geopolitical and globalization factors in transnational trade. Its development, along with globalization and the post-Fordist society, added a political variable after an era of mercantilism. As such, the conception of an accelerating mobility of capital along with worldwide urbanization also developed based on everlasting development that progressed to the capitalism of mass production and consumption.

From a rural perspective, this production and consumption philosophy is no different. However, there are inherent differences in the means of production between urban and rural living and production. For example, agri-food production is not a mechanical process like industrial production. Soil, climate, and pests, among others, influence and

interfere with production. Nevertheless, capitalism has pushed agri-food production in the same direction, aiming for standardization and homogenization of mass production. Moreover, Bonanno and Constance (2001) point to the increase in the rationalization process, pushing massification and standardization as only being possible with the participation and influence of the state (Gramsci, 1971).

As addressed in the other perspectives, economic sociology also approaches the agri-food markets. Additionally, more complex agrarian systems are endowed with cultural, human, and environmental elements that influence the differentiation of their products. These elements provide characteristics capable of producing unique and irreproducible agri-foods in different areas. Thus, agri-food products of greater complexity reproduce this complexity in the markets in which they participate and, consequently, provide the conditions that keep them from perfect competition.

The best examples of these product markets arising from more complex agrarian systems that are so particular and require differentiated markets are the products labeled with GI. Such agri-food products are significantly different from commodities, since they are irreproducible in areas other than those for which they are registered, for cultural, human, and environmental reasons. However, due to the multiple factors derived from the three terroir builders, the markets for these differentiated products can only be adequately investigated through the lens of economic sociology.

Agri-food markets become more complex as their production systems add more elements and produce more complex foods. However, as previously discussed, these systems have developed asymmetrically around the world.

Some nations support more complex systems, enabling the development of a more significant number of products imbued with their local cultures, the exercise of human practices, and those influenced by the environment. Meanwhile, other nations maintain simpler agrarian systems aimed at producing agricultural commodities.

Given the market imperfections addressed by Granovetter and Hayek (Granovetter, 1985, 2018; Hayek, 1996), it is clear that markets are not only formed by free trade relations between buyers and sellers. External influences are present, as are built-in institutions—formal or informal (North, 1991). Such conformations sustained in the markets have built institutions with different purposes around the globe.

As discussed by Acemoğlu, the formation of institutions in the world is strongly influenced by colonization (Acemoglu et al., 2001). Thus, in countries where colonization was carried out in an exploratory manner, the construction of institutions was supported

by similar agrarian and productive systems, as in Latin America and Africa. Thus, despite the existence of productive initiatives in more complex market niches, nations with this type of colonization mostly maintained commodity-producing systems. On the other hand, colonized nations with purposes of permanence developed similarly to those of their origin, industrialized, formed urban elites, and opened space for the construction of more complex markets in the food field. In addition to the form of colonization, regions where the dominant groups do not come from rural areas were able to implement formal institutions with greater capacity for the development of more complex agri-food markets.

Thus, countries colonized in an exploratory manner created agrarian elites that reproduce themselves in political power. Formal institutions, be they state structures or legal instruments, result from the political constructions into which they are inserted (Fligstein, 2002, 2008; Fligstein & Dauter, 2007). Thus, institutions represent the thinking and interests of dominant groups. In the case of nations that maintained exploratory agricultural systems and, consequently, less complex markets, their institutions became reflections of groups with greater power in the countryside.

Therefore, with the formation of agrarian elites resulting from exploratory colonization, structured groups that produce large-scale commodities are formed. On the one hand, such groups exert local power and political influence and, on the other hand, consolidate the common sense of the field's function according to the theory elaborated by Gramsci (1971). In the same vein, Michels states that the interests of those on top of organizations always come first, and oligarchies tend to sustain the elite's interests and suppress people's interests (Michels, 1966).

While consolidating the ideology and values of the dominant groups, institutions suppress the development of systems that could threaten their hegemony. Thus, the agrarian elites, upon establishing themselves as the dominant group in certain regions, build systems of political and ideological tools that make the development of other productive systems unfeasible. In these regions, by establishing the commodity production system as a model, they suppress the development of more complex agrarian systems and niche market products, such as products with GI.

The fact that institutions result from the embeddedness of the social actors involved allows for mutability in their construction. However, since institutions reflect the groups that influence them, in order for there to be transformations, it is necessary to change the groups that dominate the construction of these institutions. Thus, in order for new systems, products, and markets to flourish, it is necessary for new groups to become

dominant over the construction of these institutions. In the same sense, Acemoğlu and Robinson argue that political institutions need to increase state capacity and distribution of power in a balanced way in order to be inclusive (Acemoğlu & Robinson, 2016). Therefore, modernization is achieved through inclusive and balanced institutions. Even more specifically, Allaire and Wolf point out the importance of hybridity in institutions in the qualification process of agri-food systems (Allaire & Wolf, 2004); the authors' approach solidifies the importance of transforming institution-forming forces in order to objectify identity-based food systems.

In this way, the process of globalization consolidates the position of the nations concerning their commercial function in the world, allowing little or no mobility between them (Wallerstein, 2011). For this reason, Bonanno and Constance argue that global post-Fordism is a system that takes advantage of economic and social rigidity, seeing the labor market and local consumption as forces to be included or excluded according to their corporate interests (Bonanno & Constance, 2001). Thuss, the capitalist logic of serving the interests of hegemonic groups is maintained, to the detriment of the development of complex agri-food markets such as GI. This view of the disproportionate effects caused by globalization is endorsed by Friedland, who sees it as a phenomenon of heterogeneous effects and proportions across sectors, regions, and products, and proposes a neo-Fordist approach to cross-cutting commodities (Friedland, 2001).

This concept paper indicates that the market (and especially the agri-food market) has different levels of embedded influences, via economic and agrarian analysis. Therefore, we can conclude that there is no such thing as an invisible hand. Economic issues and, more specifically, markets are always oriented by a power balance. This balance is a result of the embeddedness of social, political, and economic matters. The outcome of this struggle pushes the profits towards the most powerful actors in play. Furthermore, GI agri-food products arise from embedded agrarian systems resulting from terroir, as the fruition of the multiple hands acting towards creating and stabilizing a market.

Finally, institutions are built to consolidate the ideas of the ruling elites. If, in turn, these elites exercise power through domination over land, the tendency is for these institutions to be oriented towards perpetuating this form of power and maintaining the interests of dominant groups. Thus, the formation of these groups allows for divergent models of agri-food production: One, oligarchic and commoditized, where colonization

was exploratory, and other, in productive niches where industrialization was able to emerge.

2.4. Conclusions

The present work sought to discuss the embeddedness of institutions in agri-food markets, based on critical theory. According to agrarian complexity, as well as the consequent formation of the market, the present concept paper sought to approach the differences in the construction of institutions by the dominance of interest groups. Much study has been devoted to agricultural markets. This work sought to present contemporary approaches to the theme and contextualize them in terms of their formation, central ideas, and analytical skills associated with different agrarian complexities and their products. In no way does this work aim to exhaust the debate; simply to present possible, viable, and assertive paths for the future discussion of these markets.

The first conclusion is that products such as GI, imbued with cultural values derived from environmental conditions and proper knowhow, are only possible in complex agrarian systems. In turn, such systems are reminiscent of practices in specific regions, carried over time by the cultural factors that allowed their current existence. Therefore, as the complexity of agrarian systems increases, the determining variables in the market for such products also increase. Thus, regions where less complex systems predominate tend to hinder the creation, maintenance, and perpetuation of such products, which may compromise their existence in the long run.

A clear conclusion is based on the principle of the formation of agrarian systems, with embedded relations with civilizations' cultural formation. Food and culture are part of the same matrix, and cannot be dissociated. Barham (2003) and Allaire (2009) suggest that the embeddedness perspective along with convention theory analysis can enlighten the discussion of origin-related food issues. Such a path could be a future avenue of research.

The second conclusion is that more or less complex agri-food markets develop due to the elite formation in each region. In regions where there is an agrarian elite sustained by the production of commodities, institutions tend to be built with their own interests in mind. Regions with industrialized economies tend to set the interest groups on this sector and open a window for dispute in the agri-food sector, allowing for the development of more complex products.

On the other hand, as a third conclusion, regions colonized through exploration, without goals of permanence, built institutions capable of maintaining this vision, as noted by Acemoğlu (Acemoglu et al., 2001, 2011; Acemoğlu & Robinson, 2016). In commodity-oriented nations, these institutions are formed by agrarian elites who exercise power and influence over them. Furthermore, the theory developed by Wallerstein applies to the present case in terms of maintaining positions regarding their functions in the periphery and semi-periphery of the world.

The fourth conclusion is that the construction of institutions is carried out to promote the maintenance of dominant groups' interests through ideological means, as highlighted by Gramsci (1971). Thus, in agri-food markets, nations reproduce these interests according to the formation of dominant groups in each place: oligarchic elites where colonization was exploratory, and productive groups dedicated to niches in regions where industrialization was a driving force.

Finally, in response to the question presented at the beginning of this work as to what drives GI agri-food markets, it is clear that the construction of these markets does not result merely from productive capacity, from the number of individuals involved in agriculture, or from the diversity of the environment that influences the goods. The primordial and determining factor for the construction of these markets is the result of the social conformation and power struggle where dominant interests prevail, which exercise control through institutions, which is called hegemony. In other words, where agrarian elites from fundamentally exploratory colonizing processes predominate, they tend to perpetuate the dominance of low-complexity agrarian models, constraining more complex embedded systems such as those endowed with terroir, such as GI. Meanwhile, in regions where the dispute for power takes place in other fields, there is room for developing factors capable of producing agri-food products and more complex markets. For agri-food markets to be altered, it is necessary to break the hegemony of dominant interest groups over the structures that form institutions. New systems can be developed only by breaking the hegemony of these groups and expanding the base of influence.

2.5. References

Abdel-Hadi, A. (2012). Culture, Quality of Life, Globalization and Beyond. *AcE-Bs 2012 Bangkok, Sukosol Hotel, Bangkok, Thailand, 16-18 July, 2012*, *50*, 11–19. https://doi.org/10.1016/j.sbspro.2012.08.011

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, *91*(5), 1369–1401. https://doi.org/10.1257/aer.91.5.1369

Acemoglu, D., & Robinson, J. A. (2006). *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.

Acemoğlu, D., & Robinson, J. A. (2016). Paths to inclusive political institutions. In J. Eloranta, E. Golson, A. Markevich, & N. Wolf (Eds.), *Economic History of Warfare and State Formation. Studies in Economic History* (pp. 3–50). Springer.

Acemoglu, D., Ticchi, D., & Vindigni, A. (2011). Emergence and Persistence of Inefficient States. *Journal of the European Economic Association*, *9*(2), 177–208. https://doi.org/10.1111/j.1542-4774.2010.01008.x

Alexander, P., Paustian, K., Smith, P., & Moran, D. (2015). The economics of soil C sequestration and agricultural emissions abatement. *SOIL*, *1*(1), 331–339. https://doi.org/10.5194/soil-1-331-2015

Allaire, G. (2009, August 16). Economics of Conventions and the New Economic Sociology and our Understanding of Food Quality and New Food Markets and Trade Institutions: What are markets that pure economics does not know? *Plenary Session 5 "The New Landscape and the Need for an Extension to the Agricultural Economics Toolkit."* 27th International Conference of Agricultural Economist, Beijing. https://doi.org/10.22004/AG.ECON.53203

Allaire, G. (2010). Applying economic sociology to understand the meaning of "Quality" in food markets. *Agricultural Economics*, *41*, 167–180.

Allaire, G. (2018). Quality in economics: A cognitive perspective. In *Qualities of food*. Manchester University Press.

Allaire, G., & Wolf, S. A. (2004). Cognitive Representations and Institutional Hybridity in Agrofood Innovation. *Science, Technology, & Human Values*, *29*(4), 431–458. https://doi.org/10.1177/0162243904265896

Allen, R. C. (1994). Agriculture during the industrial revolution. In R. Floud & D. N. McCloskey (Eds.), *The economic history of Britain since: Vol. Volume 1. 1700-1860* (2nd Edition, pp. 96–123). Cambridge University Press.

Araya, A., Stroosnijder, L., Habtu, S., Keesstra, S. D., Berhe, M., & Hadgu, K. M. (2012). Risk assessment by sowing date for barley (Hordeum vulgare) in northern Ethiopia. *Agricultural and Forest Meteorology*, *154–155*, 30–37. https://doi.org/10.1016/j.agrformet.2011.11.001

Arnsperger, C., & Varoufakis, Y. (2006). What Is Neoclassical Economics? The three axioms responsible for its theoretical oeuvre, practical irrelevance and, thus, discursive power. *Panoeconomicus; Vol 53 No 1 (2006)DO - 10.2298/PAN0601005A*. http://panoeconomicus.org/index.php/jorunal/article/view/298

Balaam, D. N., & Veseth, M. A. (2020, May 22). *Political economy*. Encyclopedia Britannica. https://www.britannica.com/topic/political-economy

Barham, E. (2003). Translating terroir: The global challenge of French AOC labeling. *Journal of Rural Studies*, *19*(1), 127–138.

Barjolle, D., Boisseaux, S., & Dufour, M. (1998). Le lien au terroir. Bilan des travaux de recherche. *Ecole Polytechnique Fédérale de Zurich, Institut d'économie Rurale, Suisse (Www. Originfood. Org/Pdf/Wp1/Wp1-Ch. Pdf)*.

Barjolle, D., Quiñones-Ruiz, X. F., Bagal, M., & Comoé, H. (2017). The Role of the State for Geographical Indications of Coffee: Case Studies from

Colombia and Kenya. *World Development*, *98*, 105–119. https://doi.org/10.1016/j.worlddev.2016.12.006

Bellwood, P., Gamble, C., Le Blanc, S. A., Pluciennik, M., Richards, M., & Terrell, J. E. (2007). First Farmers: The Origins of Agricultural Societies. *Cambridge Archaeological Journal*, *17*(1), 87–109. Cambridge Core. https://doi.org/10.1017/S0959774307000078

Benjamin, W. (2021). *The Work of Art in the Age of Mechanical Reproduction*. Lulu.com.

Bernstein, H. (2006). Is There an Agrarian Question in the 21st Century? *Canadian Journal of Development Studies / Revue Canadienne d'études Du Développement*, *27*(4), 449–460. https://doi.org/10.1080/02255189.2006.9669166

Bernstein, H. (2013). Historical Materialism and Agrarian History. *Journal of Agrarian Change*, *13*(2), 310–329. https://doi.org/10.1111/joac.12020

Bonanno, A., & Constance, D. H. (2001). Globalization, Fordism, and Post-Fordism in agriculture and food: A critical review of the literature. *Culture & Agriculture*, *23*(2), 1–18.

Borras, S. M. (2009). Agrarian change and peasant studies: Changes, continuities and challenges – an introduction. *The Journal of Peasant Studies*, *36*(1), 5–31. https://doi.org/10.1080/03066150902820297

Burt, R. S. (2021). *Structural Holes*. Harvard University Press. https://doi.org/10.4159/9780674029095

Byres, T. J. (2016). In Pursuit of Capitalist Agrarian Transition. *Journal of Agrarian Change*, *16*(3), 432–451. https://doi.org/10.1111/joac.12176

Callon, M. (1998). Introduction: The Embeddedness of Economic Markets in Economics. *The Sociological Review*, *46*(1_suppl), 1–57. https://doi.org/10.1111/j.1467-954X.1998.tb03468.x

Callon, M. (2005). Why virtualism paves the way to political impotence: A reply to Daniel Miller's critique of" The laws of the market". *Economic Sociology: European Electronic Newsletter*, *6*(2), 3–20.

Callon, M. (2020). What does it mean to say that economics is performative? In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), *Do Economists Make Markets?* Princeton University Press. https://doi.org/10.1515/9780691214665

Childe, V. G. (1936). *Man makes himself*. Watts.

Cini, L., Chironi, D., Drapalova, E., & Tomasello, F. (2017). Towards a Critical Theory of Social Movements: An Introduction. *Anthropological Theory*, *17*(4), 429–452. https://doi.org/10.1177/1463499617736465

Dabbous-Wach, A., Rodolfi, M., Paolini, J., Costa, J., & Ganino, T. (2021). Characterization of Wild Corsican Hops and Assessment of the Performances of German Hops in Corsican Environmental Conditions through a Multidisciplinary Approach. *Applied Sciences*, *11*(9). https://doi.org/10.3390/app11093756

Dobbin, F. (1994). *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*. Cambridge University Press.

Eltis, W. A. (1975). Francois Quesnay: A Reinterpretation 1. The Tableau Economique. *Oxford Economic Papers*, *27*(2), 167–200. JSTOR.

FAO, F. and A. O. (1999). *Guidelines for Agrarian Systems Diagnosis*. FAO Rome, Italy.

Fine, B. (1994). Towards a political economy of food. *Review of International Political Economy*, *1*(3), 519–545. https://doi.org/10.1080/09692299408434297

Fligstein, N. (1993). *The transformation of corporate control*. Harvard University Press.

Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, *40*(4), 397–405.

Fligstein, N. (2002). *The architecture of markets: An economic sociology of twenty-first-century capitalist societies*. Princeton University Press.

Fligstein, N. (2008). Markets as Politics: A Political-Cultural Approach to Market Institutions. In *Readings in Economic Sociology* (pp. 197–218). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470755679.ch11

Fligstein, N., & Dauter, L. (2007). The Sociology of Markets. *Annual Review of Sociology*, *33*(1), 105–128. https://doi.org/10.1146/annurev.soc.33.040406.131736

Fligstein, N., & McAdam, D. (2012). *A theory of fields*. Oxford University Press.

Fourcade, M. (2007). Theories of Markets and Theories of Society. *American Behavioral Scientist*, *50*(8), 1015–1034. https://doi.org/10.1177/0002764207299351

Fracarolli, G. S. (2021a). Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union. *Economies*, *9*(2). https://doi.org/10.3390/economies9020084

Fracarolli, G. S. (2021b). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063476

Freire, P. (2018). *Pedagogy of the Oppressed: 50th Anniversary Edition*. Bloomsbury Publishing USA.

Friedland, W. H. (2001). Reprise on Commodity Systems Methodology. *The International Journal of Sociology of Agriculture and Food*, *9*, 82–103. https://doi.org/10.48416/ijsaf.v9i.346

Friedland, W. H. (2004). Agrifood Globalisation and Commodity Systems. *The International Journal of Sociology of Agriculture and Food*, *12*, 5–16. https://doi.org/10.48416/ijsaf.v12i.319

Galati, A., Crescimanno, M., Gristina, L., Keesstra, S., & Novara, A. (2016). Actual provision as an alternative criterion to improve the efficiency of payments for ecosystem services for C sequestration in semiarid

vineyards. *Agricultural Systems*, *144*, 58–64. https://doi.org/10.1016/j.agsy.2016.02.004

Garrone, M., Emmers, D., Olper, A., & Swinnen, J. (2019). Jobs and agricultural policy: Impact of the common agricultural policy on EU agricultural employment. *Food Policy*, *87*, 101744. https://doi.org/10.1016/j.foodpol.2019.101744

Goodman, D. (2002). Rethinking Food Production–Consumption: Integrative Perspectives. *Sociologia Ruralis*, *42*(4), 271–277. https://doi.org/10.1111/1467-9523.00216

Gramsci, A. (1971). *Selections from the Prison Notebooks* (Q. Hoare & G. N. Smith, Eds.; Reprint, 1989 edition). International Publishers Co.

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, *91*(3), 481–510. https://doi.org/10.1086/228311

Granovetter, M. (1990). The old and the new economic sociology: A history and an agenda. *Beyond the Marketplace: Rethinking Economy and Society*, 89–112.

Granovetter, M. (2018). *The Sociology of Economic Life*. Routledge.

Guy, K. M. (2011). Silence and Savoir-Faire in the Marketing of Products of the Terroir. *Modern & Contemporary France*, *19*(4), 459–475. https://doi.org/10.1080/09639489.2011.610165

Halfacree, K. H. (1993). Locality and social representation: Space, discourse and alternative definitions of the rural. *Journal of Rural Studies*, *9*(1), 23–37. https://doi.org/10.1016/0743-0167(93)90003-3

Hanh, H. Q., Azadi, H., Dogot, T., Ton, V. D., & Lebailly, P. (2017). Dynamics of Agrarian Systems and Land Use Change in North Vietnam. *Land Degradation & Development*, *28*(3), 799–810. https://doi.org/10.1002/ldr.2609

Hardnack, C. (2019). Gramsci and Goffman, together at last: Toward a counterhegemonic framing approach to movement research. *Interface: A Journal on Social Movements*, *11*(1).

Hartmann, K., & Martin, M. (2021). A Critical Pedagogy of Agriculture. *Journal of Agricultural Education*, *62*(3), 21.

Hayek, F. A. V. (1996). *Individualism and Economic Order* (1ª edição). University of Chicago Press.

Ilbery, B., & Kneafsey, M. (1999). Niche markets and regional speciality food products in Europe: Towards a research agenda. *Environment and Planning A*, *31*(12), 2207–2222.

Ilbery, B., Kneafsey, M., & Bamford, M. (2000). Protecting and promoting regional speciality food and drink products in the European Union. *Outlook on Agriculture*, *29*(1), 31–37.

Jacka, T. (2018). Translocal family reproduction and agrarian change in China: A new analytical framework. *The Journal of Peasant Studies*, *45*(7), 1341–1359. https://doi.org/10.1080/03066150.2017.1314267

Jlassi, W., Romero, M. E. N., & Ruiz, J. M. G. (2016). Modernization of new irrigated lands in a scenario of increasing water scarcity: From large reservoirs to small ponds. *Cuadernos de Investigación Geográfica/Geographical Research Letters*, *42*, 233–259.

Josling, T. (2006). The War on Terroir: Geographical Indications as a Transatlantic Trade Conflict. *Journal of Agricultural Economics*, *57*(3), 337–363. https://doi.org/10.1111/j.1477-9552.2006.00075.x

Kenney, M., Lobao, L. M., Curry, J., & Goe, W. R. (1989). Midwestern agriculture in US Fordism: From the new deal to economic restructuring. *Sociologia Ruralis*, *29*(2), 131–148.

Keynes, J. M. (2018). *The General Theory of Employment, Interest, and Money*. Springer.

Kyraleou, M., Herb, D., O'Reilly, G., Conway, N., Bryan, T., & Kilcawley, K. N. (2021). The Impact of Terroir on the Flavour of Single Malt Whisk(e)y New Make Spirit. *Foods*, *10*(2). https://doi.org/10.3390/foods10020443

Lefebvre, H., & Nicholson-Smith, D. (1991). *The production of space* (Vol. 142). Oxford Blackwell.

Levien, M., Watts, M., & Yan, H. (2018). Agrarian Marxism. *The Journal of Peasant Studies*, *45*(5–6), 853–883. https://doi.org/10.1080/03066150.2018.1534101

MacKenzie, D. (2008). *An Engine, Not a Camera: How Financial Models Shape Markets*. MIT Press.

MacKenzie, D., & Millo, Y. (2003). Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange. *American Journal of Sociology*, *109*(1), 107–145. https://doi.org/10.1086/374404

Marshall, A. (1997). *Principles of economics*. Amherst, NY : Prometheus Books. http://archive.org/details/principlesofecon00mars

Marx, K. (2015). *O Capital - Livro 1: Crítica da economia política. Livro 1: O processo de produção do capital*. Boitempo Editorial.

Mayntz, R. (2019). *Changing Perspectives in Political Economy*. https://pure.mpg.de/pubman/faces/ViewItemOverviewPage.jsp?itemId=item_3149015

Mazoyer, M., & Roudart, L. (2010). *História das agriculturas no mundo* (1st ed.). Editora UNESP. http://editoraunesp.com.br/catalogo/9788571399945,historia-das-agriculturas-no-mundo

McMichael, P. (1996). Globalization: Myths and Realities. *Rural Sociology*, *61*(1), 25–55. https://doi.org/10.1111/j.1549-0831.1996.tb00609.x

McMichael, P. (1997). Rethinking globalization: The agrarian question revisited. *Review of International Political Economy*, *4*(4), 630–662. https://doi.org/10.1080/09672299708565786

Meloni, G., & Swinnen, J. (2018). Trade and terroir. The political economy of the world's first geographical indications. *Food Policy*, *81*, 1–20. https://doi.org/10.1016/j.foodpol.2018.10.003

Michels, R. (1966). *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy*. Free Press.

Mill, J. S. (2011). *On Liberty*. Cambridge University Press; Cambridge Core. https://doi.org/10.1017/CBO9781139149785

Mill, J. S. (2014). *Utilitarianism*. Cambridge University Press; Cambridge Core. https://doi.org/10.1017/CBO9781139923927

Millet, M., Keast, V., Gonano, S., & Casabianca, F. (2020). Product Qualification as a Means of Identifying Sustainability Pathways for Place-Based Agri-Food Systems: The Case of the GI Corsican Grapefruit (France). *Sustainability*, *12*(17). https://doi.org/10.3390/su12177148

Montchrétien, A. de. (2017). *Traité de l'oeconomie politique* (M. Laudet, Ed.). Classiques Garnier.

North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, *5*(1), 97–112. https://doi.org/10.1257/jep.5.1.97

Pareto, V., Montesano, A., Zanni, A., Bruni, L., Chipman, J. S., & McLure, M. (2014). *Manual of Political Economy: A Critical and Variorum Edition* (Illustrated edição). OUP Oxford.

Potter, C., & Tilzey, M. (2005). Agricultural policy discourses in the European post-Fordist transition: Neoliberalism, neomercantilism and multifunctionality. *Progress in Human Geography*, *29*(5), 581–600. https://doi.org/10.1191/0309132505ph569oa

Powell, W. W., & DiMaggio, P. J. (2012). *The New Institutionalism in Organizational Analysis*. University of Chicago Press.

Raud-Mattedi, C. H. J. (2005). Análise crítica da Sociologia Econômica de Mark Granovetter: Os limites de uma leitura do mercado em termos de redes e imbricação. *Política & Sociedade*, *4*(6), 59–82. https://doi.org/10.5007/%x

Reisman, E., & Fairbairn, M. (2021). Agri-Food Systems and the Anthropocene. *Annals of the American Association of Geographers*, *111*(3), 687–697. https://doi.org/10.1080/24694452.2020.1828025

Ren, K. (2021). Following Rural Functions to Classify Rural Sites: An Application in Jixi, Anhui Province, China. *Land*, *10*(4). https://doi.org/10.3390/land10040418

Ricardo, D. (2012). *The Principles of Political Economy and Taxation*. Dover Publications.

Robertson, P. R. (1992). *Globalization: Social Theory and Global Culture*. SAGE.

Santos, B. de S. (2015). *Epistemologies of the South: Justice Against Epistemicide*. Routledge.

Santos, M. (2015). A revolução tecnológica e o território: Realidades e perspectivas. *Terra Livre*, *9*. https://publicacoes.agb.org.br/index.php/terralivre/article/view/101

Say, J.-B. (2017). *A Treatise on Political Economy*. Routledge. https://doi.org/10.4324/9781351315685

Schultz, T. W. (1980). Nobel lecture: The economics of being poor. *Journal of Political Economy*, *88*(4), 639–651.

Smelser, N. J., & Swedberg, R. (2010). *The handbook of economic sociology*. Princeton university press.

Smith, A. (2010). *The Wealth of Nations: An Inquiry into the Nature and Causes of the Wealth of Nations*. Harriman House Limited.

Stein, H. (1994). Theories of institutions and economic reform in Africa. *World Development*, *22*(12), 1833–1849. https://doi.org/10.1016/0305-750X(94)90177-5

Stein, H. (2021). Institutionalizing neoclassical economics in Africa: Instruments, ideology and implications. *Economy and Society*, *50*(1), 120–147. https://doi.org/10.1080/03085147.2021.1841937

Steiner, P. (2017). A Plea for a Weberian Economic Sociology. *Archives Européennes de Sociologie*, *58*(3), 545.

Stone Sweet, A., Sandholtz, W., & Fligstein, N. (2001). *The institutionalization of Europe*. Oxford University Press.

Swedberg, R. (2004). Sociologia econômica: Hoje e amanhã. *Tempo Social*, *16*, 7–34.

Swinnen, J. F. (2007). *Global supply chains, standards and the poor: How the globalization of food systems and standards affects rural development and poverty*. Cabi.

Swinnen, J., & Kuijpers, R. (2019). Value chain innovations for technology transfer in developing and emerging economies: Conceptual issues, typology, and policy implications. *Food Policy*, *83*, 298–309. https://doi.org/10.1016/j.foodpol.2017.07.013

Thom, R. (1985). La méthode expérimentale: Un mythe des épistémologues (et des savants ?). *Le Débat*, *34*(2), 11–20. Cairn.info. https://doi.org/10.3917/deba.034.0011

Torres, L., Abraham, E. M., Rubio, C., Barbero-Sierra, C., & Ruiz-Pérez, M. (2015). Desertification Research in Argentina. *Land Degradation & Development*, *26*(5), 433–440. https://doi.org/10.1002/ldr.2392

Tylor, E. B. (1874). *Primitive Culture: Researches Into the Development of Mythology, Philosophy, Religion, Art and Custom* (ISBN 978-0-87968-091-6). Gordon Press; ISBN 978-0-87968-091-6.

Van Leeuwen, C., & Seguin, G. (2006). The concept of terroir in viticulture. *Journal of Wine Research*, *17*(1), 1–10. Scopus. https://doi.org/10.1080/09571260600633135

Veblen, T. (1900). The Preconceptions of Economic Science. *The Quarterly Journal of Economics*, *14*(2), 240–269. JSTOR. https://doi.org/10.2307/1883770

Vieira, R. M. S. P., Tomasella, J., Alvalá, R. C. S., Sestini, M. F., Affonso, A. G., Rodriguez, D. A., Barbosa, A. A., Cunha, A. P. M. A., Valles, G. F., Crepani, E., de Oliveira, S. B. P., de Souza, M. S. B., Calil, P. M., de Carvalho, M. A., Valeriano, D. M., Campello, F. C. B., & Santana, M. O. (2015). Identifying areas susceptible to desertification in the Brazilian northeast. *Solid Earth*, *6*(1), 347–360. https://doi.org/10.5194/se-6-347-2015

Wallerstein, I. (2011). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century* (Vol. 1). Univ of California Press.

White, H. C. (1981). Where Do Markets Come From? *American Journal of Sociology*, *87*(3), 517–547. https://doi.org/10.1086/227495

White, H. C. (2018). *Markets from Networks: Socioeconomic Models of Production*. Princeton University Press. https://muse.jhu.edu/book/61080

Xie, L. W., Zhong, J., Chen, F. F., Cao, F. X., Li, J. J., & Wu, L. C. (2015). Evaluation of soil fertility in the succession of karst rocky desertification using principal component analysis. *Solid Earth*, *6*(2), 515–524. https://doi.org/10.5194/se-6-515-2015

3. The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU

Abstract: As agri-food markets become increasingly specialized, governments are provoked to provide these products legal support to protect their supply and trade sources. After several treaties, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement was signed in 1995 as the broadest ever reached. The agreement allowed Geographical Indication (GI) of agri-food products to be targeted. The GIs of Mercosur and the European Union are very different in absolute and relative numbers, showing evidence of significant institutional participation difference. Thus, this work aims to compare the effects of institutional mechanisms promoted by Mercosur and the EU on this market by establishing an analysis framework based on the respective laws and agreements against demographic data. The results show that adherence to TRIPS is a necessary condition but not sufficient for its development. Adherence to the Lisbon Agreement also strengthens the capacity to sustain a substantial GI market. Additionally, the standardization of regulatory treatment and interventionist action helps stabilize and promote institutions in the GI market. Finally, this study concludes from the EU and Mercosur cases that a more robust, promotive and uniform system through its legal basis and dedicated structures results in more trustable institutions and potentially a more abundant market for GI products.

Keywords: economic sociology; institutions; Mercosur; European Union; geographical indication; comparative approach

3.1. Introduction

As agri-food markets become increasingly specialized, governments are provoked to provide these products legal support to promote their supply and trade sources. However, agricultural markets are not all the same. There are clearly at least two very distinct types. On the one hand, highly standardized products, in large volume and regardless of production origin, known as commodities. On the other hand, products are often handcrafted, linked to the origin of production and on a small scale, which characterizes niche markets. In these niche markets for agri-food products, the Geographical Indication (GI) stands out, although some GI products also have an industrial scale. Even so, because they have an essential territorial link, they cannot only be transported to other regions or expand production unrestrictedly. Factors like these keep GI products away from commodities. At this point, the paradox of "logic of quality" in opposition to a "productivist logic," highlighted by Allaire and Sylvander (1997), stands out. As

Bonanno (2020) stated, GI is a tool that opposes neoliberal globalization that develops and democratizes the agri-food sector.

Although origin attribution of agri-food products has been used for millennia, there has been a regulatory norm only since the 19th century. From that moment, it was necessary to instrumentalize GIs beyond a marketing strategy due to the asymmetry of information and moral hazard problems identified over a broad meaning of markets by Akerlof (1970). Therefore, it could be transformed into an instrument with a dual purpose of protecting producers regarding consumers' commercial interests to guarantee the authenticity of origin and adoption of qualitative standards (Tonietto, 1993).

Nowadays, the established concept for these signs is that GIs are those "which identify a good as originating in the territory of a Member of World Trade Organization (WTO), or a region or locality in that territory, where a given quality, reputation or another characteristic of the good is essentially attributable to its geographical origin" (WTO, 1994). Alternatively, it is merely a result of years of combinations of social, economic, cultural, and technical factors that create a unique product linked to a particular region due to know-how and terroir. Due to their nature, these products form a relevant market niche that opposes scale agriculture (Parrott et al., 2002). Depending on other factors, they can contribute to this market and promote the region (Ilbery & Kneafsey, 1999).

The European Union (EU) and the Southern Common Market (Mercosur) constitute different unions between countries. Although both constitute economic blocs, there are subtle but relevant differences between them. While the first is the union of 27 sovereign states, aiming to create and develop standard policies for economic, political and security cooperation, the latter is an "imperfect Customs Union" (Curro, 2009). This difference can significantly impact the development of supra-state policies and the facilitation of trade in products of this nature.

The number of registrations in the Mercosur and the EU GI agri-food markets points to a significant difference. While the EU has 3300 among all sectors of the bloc's products (European Comission, 2020), Mercosur has only 221 products from the bloc's five member countries (Campos, 2018). Considering the composition of this market niche based on the pillars of producers, institutions, and consumers (Ilbery & Kneafsey, 1999), the explanation for such a difference may be partially the result of state participation.

State action on commercial matters, although controversial, is a mechanism used to a greater or lesser extent across the globe. Precisely because of the differences adopted

between countries and economic blocs, there is a need to deepen how the standardization influences the agri-food products market with GI, where little work has been done. In this area, this work focuses on comparatively deepening the mechanisms of how supra-state standards reflect on these products' market.

How states organize themselves to regulate and deal with the GI market raised a question: How do supranational organizations address the theme of this market? Therefore, this work aims to compare the EU and Mercosur GI systems from an institutional perspective.

Markets as social constructions constitute an exchange arena where the actors involved interact under formal and informal rules promoting products' negotiation to provide stability for producers, consumers, and sellers (Fligstein & Dauter, 2007; Granovetter, 1985). The food market is no different and follows the same logic (Allaire, 2010; Schneider, 2016). Therefore, research indicates that the State's performance is crucial for understanding this market (Allaire, 2010; Belletti et al., 2017; Fligstein, 1996; Ilbery & Kneafsey, 1999). These findings regarding market functioning mechanisms show how institutions interfere by promoting a trustable or constraining environment.

It is crucial to investigate it through the participation of institutions, which in this case, act on the construction of formal rules through property rights. These institutions and legal aspects are addressed in the next section. Therefore, this work contributes to identifying aspects that influence this market of GIs. These findings were obtained through a thorough review of the institutional parameters by comparing the aspects of laws and agreements and analyzing the implications of such legal aspects. To do so, the methodology is covered in Section 3. Finally, this study frames the legal basis that regulates and impacts the GI market's success and failures regarding institutions and points out the crucial institutional factors. This is done in Section 4 by presenting all the results from the developed framework. After that, in Section 4, the results are discussed and deepened to demonstrate this approach's causes and effects. This is done with the hope of contributing to the possible market improvement of specialized trust in agri-food products—building towards regional development, as concluded in Section 5.

3.2. Agreements, Institutions and the Agri-Food Market

3.2.1. Treaties Milestones

The pressure for measures to protect producers from counterfeits and frauds has grown to the point that national organizations can no longer ignore it. Especially in the agricultural field, due to the lack of wine at the end of the 19th century in France with severely compromised local vineyards, the counterfeiting and sale of low-quality wines has increased. This moment was a historic opportunity for the birth of the institutionalization of a new product market in which the products have ties to their origin, making France already in the 20th century the pioneer in this market by institutionalizing it and creating the National Institute of Appellations of Origin for Wines and Spirits (INAO) for this purpose.

In the 19th century, France, aware of the theme's importance, hosted the Paris Convention. Then, in 1883, the first multilateral agreement on intellectual property (IP) was signed, giving rise to the Paris Convention for the Protection of Industrial Property, which remains in force today, managed by the World Intellectual Property Organization (WIPO). The treaty created the bases for national treatment, priority rights and standard rules, which still guide regulations. The theme is so important that the treaty, initially signed by 11 countries, has 177 members after its revisions.

Madrid was also a crucial stage for multilateral IP regulation as it hosted two binding agreements that make up the Madrid System. In 1891, the Madrid Agreement Concerning the International Registration of Marks established an international registration system but had little success. The second agreement, the Protocol Relating to the Madrid Agreement, was concluded in 1989 and aimed to simplify the application of registrations and costs and has 104 members after amendments.

Still, in the Iberian Peninsula, the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration was signed in 1958. This agreement was the first specifically for Appellations of Origin, while the others had a broad spectrum of IP and sought to establish a record base. Due to low adherence, it was revised in Stockholm in 1967, amended in 1979, and extended to all GI types with the Geneva Act, 2015. The revisions and amendments broadened the spectrum of protection of origin-related products to different region relation and country adhesion degrees. This agreement amplified an understanding and set a standard for GI protection.

Finally, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, the broadest agreement ever made in terms of IP was negotiated at the end of the Uruguay Round between 1989 and 1990, with all 164 constituent parties of the WTO

as participants. The agreement establishes the fundamental parameters and shared understanding of all specific types of IP, including GI.

All the agreements aimed to establish a common understanding of the standardization of rules to protect producers and consumers, mediated by the states as beacons of specific markets. Countries and economic blocs sought through this type of unifying document to improve and facilitate trade relations with each other in order to unify and standardize procedures and treatments. This standardization provided by the agreements and treaties guarantees the differentiation of certain goods through IP. By creating this differentiated treatment and following different rules for their production and commercialization, states establish a new market. Therefore, states seek the stabilization of markets through institutional conditions (Fligstein, 1996), which constitutes embeddedness. This embeddedness is central to the economic perception of the agri-food market beyond formal economic rules. This phenomenon occurs due to the state's interference in the rules in favor of interest groups, therefore determining the market's functioning.

3.2.2. Institutions of Economic Blocs

The use of the term "institutions" for studying social phenomena starts with Durkheim and Weber and has gained new impetus with the New Economic Sociology (NES). The first study (Durkheim, 1893), when dealing with "exchange-related institutions," focuses on the production, exchange and distribution of wealth from the social division of labor (Aron, 2016; Nau & Steiner, 2002; Raud-Mattedi, 2005). From this derivation of "market," the author analyzes social relations of a constructive nature. The second study (Weber, 2019), when analyzing the construction of social activity in the exchange action, differs from the first in understanding the mercantile process as a composition between customs, legal conventions, and the State's role beyond the law (Raud-Mattedi, 2005). In short, while for Durkheim institutions determine behavior, for Weber they guide behavior (Raud-Mattedi, 2005).

Several authors started to discuss its use in social actions years after the term became established in the most varied social sciences. Recently, several academics have felt the need for a definition. After all, what are institutions? Hodgson (2006, p. 2) defines that "Institutions are the kinds of structures that matter most in the social realm: they make up the stuff of social life." North (1991, p. 97) says that "Institutions are the humanly devised constraints that structure political, economic and social interaction. They consist of both informal constraints and formal rules". The latter is similar to the concept used by

Acemoglu and Johnson (2005), which still highlights the relevance of property rights institutions and contracting institutions, which are not usually mentioned in contemporary works. All of them converge in the broad sense that institutions consist of formal and informal social arrangements that influence collective social actions.

With this vital point resolved, the following subsection will clarify the specifics. Thus, it is necessary that, under these conditions, we analyze both the EU and Mercosur as institutions. Moreover, formal rules construct these entities and create so-called institutions. These rules are based on cooperative purposes between the countries that constitute them once they seek advantages by approximating each other. As previously mentioned, they are entities of different natures, but both with the purpose of, among other matters, promoting and facilitating trade between its members.

Mercosur came about with the Treaty of Asunción in 1991. Initially, it consisted of a free trade zone and became a customs union in 1995 between Brazil, Argentina, Paraguay and Uruguay. Subsequently, in 2012, Venezuela joined, and today are suspended. Additionally, Chile, Peru, Bolivia and Colombia, Ecuador, Guyana and Suriname became associated states. Despite its foundation's strictly commercial nature, the Ouro Preto Protocol of 1994 established a basic structure and advisory bodies for its operation. Today, it still has a commission of representatives and a secretariat among working subgroups and meetings. Mercosur grew and took, adopting integrative measures such as migration and regulatory issues shape in addition to commercial matters. However, due to the region's political instability, little progress has been made in recent years.

The EU, originating in the European Coal and Steel Community (ECSC) in 1952 and the European Economic Community (EEC) in 1957, took its first steps towards effective transnational regional integration. However, with some other agreements in the years that followed, it was only in 1992 that the entity was formalized as it stands with the Maastricht Treaty. Today, 27 countries constitute the EU, which functions as a political and economic union, which guarantees free transit of goods and people, with a single supra-state executive, legislative and judicial system and a joint regional and agricultural development policy, in addition to a single currency. With this apparatus, it constitutes the largest supra-national institution in the world.

In this way, both economic blocs constitute, to a greater or lesser degree, institutions capable of influencing the markets' direction in their respective regions and causing embeddedness through their regulations.

3.2.3. Property Rights and the Influence of Institutions

At the beginning of the 20th century, Weber had already addressed social action as an object of study. Moreover, it is also part of the market, ratified by Granovetter (1985). One must understand the market as social structures due to social constructions (Abramovay, 2000, 2004; Fligstein, 2001; Smelser & Swedberg, 2005; Steiner, 2017) resulting from how institutions participate in economic action. Thus, as defined by Abramovay (2004, pp. 35-36), markets are "recurrent and standardized forms of relationships between actors, maintained through sanctions." Thus, the Weberian perspective of the market formation allows us to analyze how the different actors, located in a given exchange arena, operate exchanges as institutions with the State as a mediator through the rules (Raud-Mattedi, 2005).

From the NES' re-foundation, through Granovetter's (1985) work, the understanding of economic phenomena, particularly the markets, takes on a meaning other than classical and neoclassical logic and rejects an optics explanatory monocausal derived from rationalism. The NES is based on groupings in favor of an adaptive struggle to maintain stability through cooperation by structures that constitute institutions, constituting embeddedness (Fligstein, 2001; Fligstein & Dauter, 2007; Granovetter, 1985; Smelser & Swedberg, 2005). This approach to the markets opened a new field of thought, with proposals for approaches through the networks formed between the actors (Burt, 1992; White, 1981, 2002), through performance (Callon et al., 2002; Callon & Muniesa, 2005; Mackenzie, 2008) and institutions (Dobbin, 1994; Fligstein, 1996, 2002; Powell & DiMaggio, 2012). In particular, the institutional approach seeks to answer questions related to markets' functioning through the configuration of social actions formed by the formal and informal rules of markets, power, and norms.

In the present context, the State plays a crucial role since, in every capitalist State, the economy's governance is a core activity in the process of state-building (Dobbin, 1994; Fligstein, 1993, 1996). Due to such relevance of the state's participation over economic issues, property rights is characterized as a mechanism to structure the markets (Walder et al., 2013). Through property rights, states assist, lead, or constrain economic organizations' forms and control the market's functioning (Campbell & Lindberg, 1990). These institutional acts are how state action constitutes a stable environment and conditions so that firms can organize, compete, cooperate, and transact so that neutrality becomes impossible (Fligstein, 1996). Above all, works such as those by Allaire (2010,

2009), Abramovay (2004), and Barjolle et al. (2017) highlight the relevance of the institutional approach to the GI market.

In this context, GI is an expression of the sociocultural embeddedness in the territory (Cerdan, 2013). Such embeddedness is produced and sold to the consumers and involves a whole system of protection to guarantee legitimate goods and authentic properties that need a solid and trustable apparatus. To do that, each country or economic bloc developed its way to do it. However, as each system is different, the present work seeks to compare the differences between the two.

How does state action interfere in the agri-food products market with GI? One of the mechanisms used is how they conceive and create the environment so that actors can participate and transact, also creating the formal rules established by law and international agreements that deal with and regulate property rights. In practical terms, GIs as an intellectual property item have in these legal strata the manifestation of the state's will and the power to promote and control it. Therefore, it is in national laws, regional laws such as those of Mercosur and the EU and global agreements, such as Trade-Related Aspects of Intellectual Property Rights (TRIPS) and others that institutions realize their interests.

3.2.4. GIs in Back Panels

A third theoretical aspect is the need to highlight the situation of GIs between the EU and Mercosur. Despite the quantitative difference in GIs recorded in each block, all member countries of each bloc have operating systems capable of representing the best that each one offers. However, while the EU has operated a system informally for thousands of years and has a single regulation with reasonably well-defined rules, Mercosur still seems to be building a system that may one day be unified among all South American countries. Therefore, what is the current GI situation in these two blocs?

On the South American side, the two most notorious cases are Brazil and Argentina. For example, Argentina has 107 Argentine products registered with GIs, of which 99 are wines (Instituto Nacional de Vitivinicultura, 2020), and eight are from other agri-food products (Argentina, 2020). These numbers show a clear vocation and public attention to the development of the wine sector. Simultaneously, Brazil has 54 registrations of Brazilian products with GIs with diverse product types, including wines, cheeses, fruits and coffee (Brasil, 2020). These figures open up the reality of this market's maturation

stage in Mercosur. The two largest record holders in the bloc combined do not even have 200 GIs, denoting a clear situational gap.

On the European side, the Mediterranean countries are the most quantitative highlights of registering products with GI. For example, as the pioneer in this market, Portugal has 191 registrations of national products with GIs; 40 are wines (European Comission, 2020). These numbers demonstrate a solid base of products with unique characteristics and ready for the market, considering the little more than 92 thousand square kilometers and its little more than ten million inhabitants. In the country with the most significant number in registrations, Italy, the figures give an even more robust picture of this market. With 861 records of GIs and 524 wines (European Comission, 2020), the country shows full aptitude and an apparent strategic reference for the agri-food market.

The numbers of GI registrations are insufficient to exhaust the argumentative basis regarding this market model's performance, either as a commercial strategy, cultural recognition or a protection model. Therefore, it requires an in-depth analysis of the various aspects that permeate this market. Thus, the presented scenario only illustrates how certain countries and regions choose geographic indication as an appropriate route for their agri-food products. The comparative analysis of each one's legal bases provides the opportunity to show how one of the possible elements impacts this market's development and factors such as the bureaucratic structure aimed at the subject, targeted public policies or tariff policy.

3.3. Methodology

Mercosur's and the EU's choices allows a contrast between two continental economic blocs with distinct food and market cultures. Besides the different nature, cooperative institutions have, as a fundamental concept, joint action as a development strategy. However, to compare them, this work pays attention to internal laws and international agreements as instruments that allow market comprehension. Therefore, this work seeks to reach its objective by building an analysis framework capable of comparing both blocs. Thus, looking at agreements, legal instruments and examining the schemes will support this analysis, with agreements' adhesion and structure dedicated to this market. To build a functional analysis framework it was first necessary to survey each bloc's norm.

A framework capable of supporting the investigation of a specific market such as agricultural products has three vertices: the state, consumers and producers (Belletti et al., 2017; Ilbery & Kneafsey, 1999). One of the state's instruments to act in an embedded way occurs by creating this market's rules, creating this intermediate field (Fligstein, 1996, 2002). This way, it creates a niche that compares the economic blocs of Mercosur and the European Union. The hypothesis defended by this work is that the active involvement of supra-state entities, through their legal instruments, favors the development of the market by strengthening the institutions by creating instruments that protect and promote the market in question. Therefore, to compare the systems, this work examines crucial aspects of each bloc:

(1) Are all countries in the economic bloc signatory to the TRIPS Agreement*?* Negotiated at the end of the Uruguay Round, the agreement establishes minimum commercial regulation standards regarding intellectual property, which came into force on 1 January 1995. The agreement's signing means sharing the same legal and minimum protection root of commercial assets of issue in this work.

(2) Are all countries in the economic bloc signatory to the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration*?* This agreement, signed on 31 October 1958, guarantees protection to all other members when something is registered in one of them. Additionally, revised in Stockholm in 1967 and amended by the Geneva Act in 2015, the agreement attests that the products registered with GI have characteristics attributed exclusively or essentially by factors intrinsic to the region, whether natural or human.

(3) Does the economic bloc centralize or decentralize the norm*?* The question raised in this item is whether the bloc's legislation is uniform for members or whether each country has its own. The answer may indicate ease or difficulty of understanding the asset for its citizens and consequent commercialization.

(4) What are the objectives of the legal instrument*?* This question aims to identify whether the subject of GI to its participants treats consumers and producers as merely protective, if the meaning of the legislation promotes these markets, or if it is mixed.

(5) What is the role of the bloc in conducting the process*?* According to each bloc's legal text, it is possible to categorize the bloc's role and the respective interference and regulation of this market to categorize the bloc as interfering or neutral.

(6) Is there a graphical representation*?* Is there a unique graphic representation for the economic bloc products that can unify the consumer's understanding of GIs' meaning?

(7) Is there a different treatment for specific products*?* This question denotes the details of the legal instrument for products with GI.

(8) What type of intellectual property protection does the country use*?* There are three leading possible modalities: sui generis, collective or certification marks and methods focusing on business practices based on unfair competition. The modality chosen by the bloc may indicate the ease of uniformity which strengthens or weakens its institutional aspects.

(9) Is there a specific structure for the theme within the economic bloc? This question seeks to answer if there is a formal instance of discussion and deliberation regarding GIs over the economic bloc. The existence and function of such a space may indicate how both treat the matter.

Finally, facing all the answers obtained among the data referring to the absolute number of records per bloc, area, and population also contribute to this market's dimension. Then, a table shows where it is possible to see the differences in each case. This table synthesizes this research's results intuitively and elaborates on some partial conclusions about the agri-food products market's functioning with GIs. This theoretical framework sheds light on the relationship between the legal provisions and their influence over the market's institutions. The results can point to the importance of a well-developed GI system and allow inferences about models to be adopted.

Subsequently, we built a comparing table between economic blocs. Demographic data, such as area and population, among the number of GI records, state the present impacts of regulation effects. Thus, it will be possible to analyze the two blocs with a greater degree of accuracy and relevance to the sectors where formalized institutional structure has a greater weight. The parameters of area and population are more suitable for comparison than economic data due to the factors that imply characterizations of such products, natural or human, which characterize GI products.

The data referring to each economic bloc come from EU legislation and agreements signed by the Mercosur. Global spectrum agreements come from the WIPO and WTO documents. The GI records data are from the European Commission and the database of each country in Mercosur. As for demographic data, these follow according to the official availability of each bloc.

3.4. Results

As the investigation result, the answers to the previous section's questions were collected and adjusted according to an organized theoretical framework that allows better visualization of these exact results. Therefore, the results are more evident when pointing out the paths toward conclusions. Along with the answers that support the framework, the results also include economic data about the blocs so that the comparison can stand and sustain the analysis and the GI numbers, which is essential for a fair discussion of the differences of the blocs.

3.4.1. Mercosur

The Southern Common Market (Mercosur) started on 26 March 1991, following the Treaty of Asunción in the same year founded by Argentina, Brazil, Paraguay and Uruguay. Subsequently, in 2012, Venezuela joined the bloc which still has Bolivia in accession, while seven states are associated: Bolivia, Chile, Colombia, Ecuador, Guyana, Peru and Suriname. There are also two other observers of the bloc: New Zealand and Mexico.

The bloc started as a free trade area and since 1995 it has become a customs union. Today, it has purposes beyond the promotion and commercial development of its members. It aims to promote cultural and educational integration and the circulation of goods and people between member countries. Despite constant political divergencies, the bloc is still active and has all of its foundations sustained through agreements and protocols. Next, we present the results. Thus, each question asked in the previous section has its numerical correspondent as follows below.

(1) Yes. All five Mercosur members have been signatories to the agreement and members of the WTO since 1 January 1995. Thus, all members are subject to the same fundamental legal basis, meaning that everyone has a convergence in understanding the theme.

(2) None of the Mercosur countries have signed neither the Lisbon Agreement nor the Stockholm Act nor the Geneva Act. Therefore, the conception of protection between the countries may differ, and its extension is not guaranteed between the other signatories.

(3) There are only two transnational pieces of legislation within the scope of Mercosur. The Protocol for Harmonization of Standards on Intellectual Property in Mercosur in Matters of Marks, Indications of Source and Designations of Origin and the Protocol for Harmonization of Standards in Industrial Design matters. In 1995, Paraguay, Uruguay and Venezuela ratified the first and the second, in 1998, was ratified only by Venezuela. Even though it was in force in all the bloc countries, the Harmonization Protocol of norms

about IP leaves to each of its members' discretion the way to treat this issue domestically. The Mercosur agreement aims at "being able to grant broader protection" (Mercosul, 1995), establishing only the nomenclature of the characterizable labels, Designation of Origin and Indication of Source.

(4) Considering the Harmonization Protocol (Mercosul, 1995), all terms used in the agreement are in the sense of guaranteeing protection for producers and consumers. This document, concerning indications of origin and designations of origin, indicated as the "Obligation to Protect," according to the final intentions of the beginning of "promoting effective and adequate protection to intellectual property rights" (Mercosul, 1995).

(5) The Mercosur Harmonization Protocol does not establish any obligation to its members regarding this market besides guaranteeing protection and equal treatment between its partners' products. Therefore, there is no uniform regulatory interference, it is characterized as neutral.

(6) There is no single graphical representation for all members. It is up to each member to define whether there is at least one graphical representation for the whole country. In the South American case, each makes use of a different pattern. While each record has a graphical representation in Brazil, Uruguay has no clarity since it determines that GIs are the geographical names without restricting them. Although agri-food products may also have their representations in Argentina, national labels are expected to be used, which does not apply to wines. Finally, Paraguay foresees standardized national labels resembling the Argentinian case.

(7) In the Harmonization Protocol, there is no different treatment for any category of products, and therefore all should be treated equally.

(8) Meanwhile, Argentina and Uruguay use a genuine sui generis interpretation for their GI system. Brazil uses a predominant sui generis system but allows other interpretations due to specific cases such as cachaça. Paraguay, on the other hand, has legislation closer to collective or certification marks. Therefore, Mercosur has a heterogeneous manner of protection.

(9) Regarding Mercosur's organogram (Mercosur, n.d.), working subgroup number eight regards agriculture. Additionally, there are specialized meetings dedicated to cooperative associations and to family farming. However, both specialized meetings are dedicated to related subjects, and there is no specific direction towards GI on the agenda. Therefore, despite instances of having discussion, Mercosur does not have a specific structure to address the matter.

3.4.2. EU

The EU is a bloc made up of 27 members from the European Economic Community formed in 1957. In 1993, by the Treaty of Maastricht, the European Union was established, and revised by the Lisbon Treaty in 2009. The EU functions as a supranational institution system through the European Council, European Commission, Council of the European Union, European Parliament, Court of Justice of the European Union, European Central Bank and the European Court of Auditors. In addition to a common market, this supranational system forms harmonizing monetary, migratory, agricultural and developmental policies, among others, so that there is a standard regulation capable of guiding each member country's policies and legislation. For this stage, this work focuses on the elementary regulations in force in the European Union. We added the last part in the previous paragraph to reinforce the corresponding link between questions and answers.

(10) Yes. All 27 members have been signatories to the agreement, members of the WTO and have signed the agreement on different dates. Thus, all members are subject to the same fundamental legal basis, meaning that everyone has a convergence in understanding the theme.

(11) At the Lisbon Agreement, all EU members did not initially sign it, nor did the EU formally exist. However, on 25 February 2020, the EU signed the Geneva Act, and it became a homogeneous system for all members. This way, the bloc guarantees protection for all countries' registrations, and there is a standardization of understanding of the protection.

(12) Among the primary legislation, there is a normative set for the entire economic bloc that still separates agri-food products (Regulation (EU) No. 1151/2012, 2012), wines (Regulation (EU) No. 1306/2013, 2013; Regulation (EU) No. 1308/2013, 2013), aromatized wines (Regulation (EU) No. 251/2014, 2014) and spirits (Regulation (EU) 787/2019, 2019). These documents create a set of general rules that member countries must follow. This allows members to adopt national rules, as provided for in Regulation 1151/2012, Article 28, stating that "Member States may maintain national rules on optional quality terms which are not covered by this Regulation, provided that such rules comply with Union law." However, this regulation does not restrict the GIs. Therefore, the EU set of rules centralizes the understanding of the GI approach in the European bloc.

(13) In Regulation (EU) 1151/2012, in Article one—General Provisions, where it constitutes the objectives of the legislation in question, it establishes four reasons for ensuring: (a) fair competition for farmers and producers of agricultural products and foodstuffs with value-adding characteristics and attributes; (b) the availability to consumers of reliable information about such products; (c) respect for intellectual property rights; and (d) the integrity of the internal market, like the specific objectives regarding GIs, contained in Article four of the same regulation. All items must attribute value to this market for promotion and the concrete protective connotation with European producers.

(14) It is clear from the regulations of Regulations (EU) 1151/2012, 1306/2013 and 1308/2013 that, in addition to the objectives already presented, these documents also relate to the Common Agricultural Policy (CAP), which deals with measures to encourage agricultural production across the bloc. Thus, they aim to protect their products and producers and establish minimum qualitative parameters to develop this market. Therefore, the role of the bloc is characterized as interventionist.

(15) Yes. The Commission Delegated Regulation (EU) No 664/2014 (Commission Delegated Regulation (EU) No 664/2014, 2013) establishes the symbols to be used in all products with GI by the block members, such as Protected designation of origin (PDO), Protected geographical indication (PGI) being optional for wines in all cases and Traditional speciality guaranteed (TSG), mandatory for all products.

(16) Yes. There are different regulations between agri-food products, wines, spirits and aromatized wines (Regulation (EU) No. 1151/2012, 2012; Regulation (EU) No. 1306/2013, 2013; Regulation (EU) No. 251/2014, 2014; Regulation (EU) 787/2019, 2019; Regulation (EU) No. 1308/2013, 2013).

(17) The EU utilizes a sui generis system. A special regime designed to protect the GIs of the bloc. The design used by the EU is well known and recognized as the first reference for the theme worldwide.

(18) There are two organizations in the EU's system that relate to GIs. First, the European Union Intellectual Property Office (EUIPO) and the Consumers, Health, Agriculture and Food Executive Agency (Chafea). EUIPO is related to legal issues, but Chafea has a specific sector dedicated to promoting agricultural products (*Chafea*, 2021). Therefore, the EU has a specific agency in charge of the subject.

3.5. Discussion

Once the collection of information from both blocs' legislation is complete, the respective results show a more in-depth analysis of the material is necessary. Table 1 shows the results that summarize the difference of regulation on both economic blocs. The table synthesizes that the EU, concerning Mercosur, has a unified regulation for all countries in the bloc, ensuring uniform market treatment; is not restricted only to the protection of products; has a more incisive character when interfering in regulation; it is also uniform in its interaction with the consumer; and differentiates the treatment of product categories.

Table 1. Comparison between the EU and Mercosur related to structure regulations.

Bloc/Item	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
Mercosur	Yes	No	Decentralized	Protective	Neutral	No	No	Heterogeneous	No
EU	Yes	Yes	Centralized	Mixed	Interventionist	Yes	Yes	Homogeneous	Yes

Despite the TRIPS Agreement's signature by all members, Mercosur has also signed the treaty to standardize IPs as an instrument capable of sharing understanding, treatment and nomenclatures. Although, it has been shown as ineffective. Despite the signing of the treaty, its members with the largest economies, Brazil and Argentina, have not ratified it internally and therefore it has no validity. This fact harms the respective markets since there are no practical effects. It compromises the rule's protective nature since it does not apply in the countries with the largest economies in the bloc. However, all this considered, it maintains coherence when positioning regulatory interference as neutral.

Despite the differences as a type of bloc organization between the two, some instruments allow homogeneous treatment. However, the deployment option is different between cases. While Mercosur opted for a purely protective instrument, the EU adopts a protective system and promotes the market. Likewise regarding the regulations of both, while Mercosur aims to remain neutral in the market, the EU seeks the desired promoting effect through measures that interfere in order to ensure effectiveness. The nature of the constituted instances reinforces this conception within each organization.

Furthermore, while Mercosur has instances that only touch on the subject, the EU has an agency that addresses it incisively. The first one has open discussion spaces, which are essential, but they do not address the theme specifically. Nevertheless, that structure is coherent to a protective interpretation. Nonetheless, the EU's structure dedicates an

agency towards promoting this market on an executive agency, which is also coherent to the bloc's perspective.

Another aspect that differentiates how each economic bloc treats its relationship to the market in question is using a distinctive sign for the entire block to facilitate the assimilation of consumers within that market. The EU also adopts differentiated regulatory treatment concerning wines and spirits whose impacts on the market need further study. This differentiation can bring essential elements to understand the market's functioning in countries with a relevant GI record portion, like Argentina and Uruguay.

Similarly, Table 2 presents the comparison between Mercosur and EU in socio-economic terms based on data from 2019. On the one hand, Mercosur has about 65% of the EU population. On the other hand, its area is close to three and a half times that of the EU, denoting a much greater population density in the European bloc. This difference allows analysis in two different but complementary forms. Additionally, there is more valuable information on economic matters. The first one is that the EU has almost four times Mercosur's Gross Domestic Product (GDP). It is a much greater market due to its economy; therefore, it is one of the main actors on the world stage. The second one is that the EU exports more than 12 times the value of Mercosur. This happens not only due to the number of countries or the bulkier economy but also partially due to the nature of the goods exported, which contain significant added value (COMITÉ TÉCNICO N° 6 "Estadísticas del Comercio Exterior del MERCOSUR" & UTECEM/Secretaría del MERCOSUR, 2019; Eurostat, 2020).

Table 2. Comparison between the EU and Mercosur related to socio-economic numbers.

Bloc/Iten	Population (est.)	Area (km^2)	GDP (Trillions USD)	Exports (Billions USD)	Main Agri-Food Exported Products
Mercosur	295,007,000 (Mercosur, 2020)	14,869,775 (Mercosur, 2020)	4.169 (International Monetary Fund, 2020)	273 (COMITÉ TÉCNICO N° 6 "Estadísticas del Comercio Exterior del MERCOSUR" &	Soybeans, corn, flour and pellets (soybeans) and frozen beef (COMITÉ TÉCNICO N° 6 "Estadísticas del Comercio Exterior del MERCOSUR" &

				UTECEM/Secretaría del MERCOSUR, 2019)	UTECEM/Secretaría del MERCOSUR, 2019)
EU	447,706,209 (European Union, 2020b)	4,215,262 (European Union, 2020a)	15.621 (International Monetary Fund, 2020)	3.357 (*Access2Markets Statistics Page*, 2021)	Wine (and related), spirits and liqueurs, pork meat and chocolate (European Commission, 2019)

There is one other piece of information shown by Table 2, which is the main agri-food products that each bloc exports. While in Mercosur there is a concentration on commodities, the EU rather exports ones with some value added. This is a set of national economic strategies that this work does not intend to debate. However, the strategy adopted by the EU favors GI products, which label a value.

In a complementary way, the discrepancy in the number of records between the two blocs presented in Table 3 is striking. It may have historical origins and lacks an aligned commercial strategy capable of boosting this market's products. This factor is even more relevant in countries focused on the economy's primary sector, such as Brazil and Argentina.

Table 3. Comparison between the EU and Mercosur related to Geographical Indication (GI) numbers.

Bloc/Item	**GIs Registered**	**Wines**	**Spirits and Aromatized Wines**	**Others**
Mercosur	210 (*Impulso de Denominaciones de Origen Fortalecen Producción Nacional* | *SAPI*, 2020; INPI, 2020; Instituto Nacional de	140 (*Impulso de Denominaciones de Origen Fortalecen Producción Nacional* | *SAPI*, 2020; INPI, 2020; Instituto Nacional de	3 (*Impulso de Denominaciones de Origen Fortalecen Producción Nacional* | *SAPI*, 2020; INPI, 2020; Instituto Nacional de	67 (*Impulso de Denominaciones de Origen Fortalecen Producción Nacional* | *SAPI*, 2020; INPI, 2020; Instituto Nacional de Vitivinicultura, 2020; Ministerio de

	Vitivinicultura, 2020; Ministerio de Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020)	Vitivinicultura, 2020; Ministerio de Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020)	Vitivinicultura, 2020; Ministerio de Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020)	Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020)
EU	3336 (European Comission, 2020)	1616 (European Comission, 2020)	247 (European Comission, 2020)	1473 (European Comission, 2020)

Mercosur adopts independent and neutral–protective measures which are a counterpoint to the EU's situation. The European economic bloc has more active instruments regarding the GI products approach. The work presents evidence of different treatments on legal aspects. Systems such as the South American system work on low capacity tools for market development. On the other hand, the European system embedded a more proactive institution resulting in a more dynamic market. The result of this comparison reflects on the number of registrations in each of the markets. Both tables' allows us to infer that more active, integrated and robust normative systems provide institutions (in this case, the market) with more efficiency. The demographic data contribute to understanding of the magnitude of the difference in effects resulting from the approaches. Moreover, the mere adoption of the general guiding parameter for GIs' basic understanding does not mean that this IP modality's assimilation will be homogeneous among the adhering entities.

Still, in comparison to Mercosur, the EU presents a more significant number of registrations. This number becomes even outstanding in relative terms since its area is smaller than that of the South American bloc. Additionally, despite reports of origin-related products being much older than in the Americas, the oldest records in the current mold date from 1973 in France (European Comission, 2020). Therefore, the high registration numbers are a credit to the European group of countries' organizations. The standardization of norms and an interventionist posture of the institutions allows market promotion and collective strategies, such as using a single label.

The demographics illustrate the significant difference. Data such as area and population are more relevant to the present analysis due to the factors that embed the GI

products and, furthermore, the market. Since GI products are social constructions based on natural, human and historical factors (Barham, 2003), population and area are adequate measures to influence the market. People play a role in human factors, and area allows different natural effects over agricultural products. However, historical effects could be crucial to this market and need further studies in both regions.

The hypothesis defended by this work is therefore sustained. The presented evidence supports that supra-state entities' active involvement, through their legal instruments, favors the market's development by strengthening the institutions and promoting the market in question. On the other hand, legal instruments' mere existence or adoption of a broad spectrum of rules does not necessarily impact positively. Furthermore, the broader the measures, the weaker the ties that bind and embedded the institutions are.

The results of this investigation suggest that the arguments of Stone Sweet et al. (2001) and Fligstein (1996, 2008) also provide support in the niches of agricultural markets, especially in GI. The factors that create effective institutions through cooperative means can boost political and cultural aspects, triggering development such as of the GI market. In this way, the EU model can be used as a reference and indicate a possible path for the market in question, depending on each region's reality. However, the reasons why some countries develop differently from others within the economic bloc require further attention.

Beyond Fligsteins's approach, there is evidence that broader spectrum agreements have little influence on the institutions and, therefore, on the markets. On the other hand, narrower agreements such as the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration and its amendments bind the participants to instruments, promoting homogeneity and strengthening the institutions which promote the market. The proposition to build a unique understanding by the EU results other blocs and countries to format a system to protect such culturally related goods and create the notion of control.

Markets are based on a relationship of trust between buyers and sellers, on a willingness to cooperate (Beckert, 2005; Granovetter, 2017). Due to this, trust becomes a central aspect of this market's success or failure. The adhesion of producers and their formal groups to official GI schemes and consumers that recognize GI labels as trustable makes national and supranational institutions the vehicle that gives trustworthiness to both sides. These institutions are the glue of trust in the GI system designed to protect and promote this specific market. Therefore, by strengthening the institutional parameters,

there is a heightening in the trustworthiness of the scheme. This trust results in greater participation by producers and consumers of such goods. The trust results in a more reliable, standard and established system reflected by the large number of GI registrations in the EU.

The results indicate that standard legal structures among promotive measures and intentions fortify the institutions and facilitate commerce, developing these products' market. Additionally, the area and population have little influence over product registrations, even though they are the characterizing factors for such goods, if not followed by proper institutional tools. The evidence suggests that the strengthening of institutions designed through cooperation and harmonization towards the theme promotes trustable GI schemes allowing market development. In both cases, binding agreements and narrower understanding and devoted institutional structures and standardization reinforce the instruments that strengthen the system. The most efficient system responds to well-defined structures designed to promote the market and tied to elements capable of promoting and protecting it. Such efficiency overcomes the compared lack of natural factors that could influence the number of GI products.

3.6. Conclusions

In summary, the present work demonstrates the parallel situation between two economic blocs, Mercosur and the EU, through a qualitative analytical matrix explicitly built to understand the legal framework that influences the institutions involved. Additionally, it investigates the possible causes arising from the State or its organizations expressed in the normative–legal framework to regulate, protect and promote the market for GI agri-food products.

The results show that the European bloc numbers are significantly higher than those of the South American bloc, a relationship that also expresses the countries selected in absolute terms. The proportionate results are even more expressive considering the area of both and attenuated in populational terms. These conclusions reinforce Fligstein's (2008) argument that the EU is a social organization model that favors the bloc's political, cultural and commercial dynamics. Additionally, this investigation's results must be overlooked through the lens of the bloc's economic strategy. The numbers presented in Table 2 show that value addition to agri-food products could proportionate dividends and development to the countries.

The standardization of norms and uniformity of understanding for developing a common and shared strategy among commercial partners is crucial for GI products' commercial performance. However, the narrowness or wideness of the norms tends to influence the standardization effectiveness severely. The existing correlation between uniformity and standardization of norms, combined with state interventions geared towards their promotion, demonstrates the relevance of this market's success. This argument is reinforced by the formal structures within the bloc designed to address the issue. However, it cannot establish sufficient cause for it and the differentiation of standards for specific products. Further research over products such as wine might show more evidence of the relevance of bureaucracy-related structures. Likewise, the results show that adherence to broad-spectrum agreements is positive since it is a step towards standardization on the topic. However, they are not enough to develop the market. Narrower agreements and specific offices with institutional intentions have been shown to be more effective, and innovative structured measures can build a perception of control for the institutions.

The first conclusion is that the signing of broad-spectrum protection agreements, by itself, does not guarantee the full development of the covered market. Although it is positive, the narrower the agreements, the stronger the bind to standardization and strengthening of the institutions. The second conclusion is that the more legal instruments that are politically active, the more significant the GI records' quantitative impact. The third is that instruments aimed at promoting the market beyond the protection of producers and consumers and centralizing understanding and labeling favor the institutional tools to used develop this market. The fourth is that the initiative to build measures towards a universal understanding and pioneer instruments to strengthen the institutions creates a conception of control that tends to be followed. The fifth is that institutional structures designed to promote the GI scheme can strengthen the market. After all, the EU has developed a more robust, promotive and uniform system through its legal basis than Mercosur and, therefore, is more capable of protecting and promoting its GI products. The sixth and last conclusion is that a more reliable, standard and established system reflects on the system's trustworthiness and implies more participation from both consumers and producers. This includes a higher number of registrations and protections granted. This work's findings complement other works on the role of institutions' relevance to governance (Belletti et al., 2017; Mancini, 2013).

Finally, the number of registrations expresses the significance as far as the instruments are present in the market. There is a tendency to facilitate trade between the states involved when institutions operate cooperatively and are dedicated to a defined purpose. The potential differences that act over GI products' characterization, such as human and natural elements, have little effect on the number of registrations if not followed by organized supranational standard institutional elements. However, both this last aspect and the differentiation of labeled products still need further study.

Other elements, such as producers and consumers, may also be decisive in this market and need further study, including in specific and distinct categories of products, GI typology and the economic impact of using a single label. More in-depth country and theoretical investigations, especially in the EU, are necessary. Despite having the same basic rules, countries seem to perform differently as Mediterranean ones. Therefore, more work is necessary and can bring findings on the roots of productive vocations and social relations developed from culturally related agri-food products. Likewise, investigations related to products strongly related to countries and their market development can bring valuable information to academics, practitioners and authorities.

3.7. References

Abramovay, R. (2000). A rede, os nós, as teias: Tecnologias alternativas na agricultura. *Revista de Administração Pública*, *34*(6), 159–177.

Abramovay, R. (2004). Entre Deus e o diabo: Mercados e interação humana nas ciências sociais. *Tempo Social*, *16*(2), 35–64. https://doi.org/10.1590/S0103-20702004000200002

Access2Markets Statistics page. (n.d.). Retrieved May 1, 2022, from https://trade.ec.europa.eu/access-to-markets/en/statistics

Acemoglu, D., & Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, *113*(5), 949–995. https://doi.org/10.1086/432166

Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics*, *84*(3), 488. https://doi.org/10.2307/1879431

Allaire, G. (2009). Economics of Conventions and the New Economic Sociology and our Understanding of Food Quality and New Food Markets and Trade Institutions What are markets that pure economics does not know? *Plenary Session 5 "The New Landscape and the Need for an Extension to the Agricultural Economics Toolkit,"* 34.

Allaire, G. (2010). Applying economic sociology to understand the meaning of "Quality" in food markets: Applying economic sociology to understand the meaning of "Quality" in food markets. *Agricultural Economics*, *41*, 167–180. https://doi.org/10.1111/j.1574-0862.2010.00498.x

Allaire, G., & Sylvander, B. (1997). Qualité spécifique et systèmes d'innovation territoriale. *Cahiers d'Economie et de Sociologie Rurales (CESR)*, *44*(905-2016–70588), 29–59.

Argentina. (2020, June 15). *Indicación geográfica y denominación de origen*. Ministerio de Agricultura, Ganadería y Pesca, República Argentina.

http://www.alimentosargentinos.gob.ar/HomeAlimentos/IGeo/productos_reconocidos.php

Aron, R. (2016). *As etapas do pensamento sociológico*. Leya.

Barham, E. (2003). Translating terroir: The global challenge of French AOC labeling. *Journal of Rural Studies*, *19*(1), 127–138.

Barjolle, D., Quiñones-Ruiz, X. F., Bagal, M., & Comoé, H. (2017). The Role of the State for Geographical Indications of Coffee: Case Studies from Colombia and Kenya. *World Development*, *98*, 105–119. https://doi.org/10.1016/j.worlddev.2016.12.006

Beckert, J. (2005). Trust and the performative construction of markets. *Available at SSRN 2465811*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2465811

Belletti, G., Marescotti, A., & Touzard, J.-M. (2017). Geographical indications, public goods, and sustainable development: The roles of actors' strategies and public policies. *World Development*, *98*, 45–57.

Bonanno, A. (2020). Geographical indication in agri-food and its role in the global neoliberal era: A theoretical analysis. In *Geographical indication and global agri-food: Development and democratization* (Alessandro Bonanno, Kae Sekine and Hart N. Feuer, p. 240). Routledge.

Brasil. (2020, June 15). *Lista de IGs Registradas*. Ministério da Agricultura, Pecuária e Abastecimento, República Federativa do Brasil. https://www.gov.br/agricultura/pt-br/assuntos/sustentabilidade/indicacao-geografica/lista-de-igs-registradas

Burt, R. S. (1992). *Structural Holes: The Social Structure of Competition* (SSRN Scholarly Paper ID 1496205). Social Science Research Network. https://papers.ssrn.com/abstract=1496205

Callon, M., Méadel, C., & Rabeharisoa, V. (2002). The economy of qualities. *Economy and Society*, *31*(2), 194–217. https://doi.org/10.1080/03085140220123126

Callon, M., & Muniesa, F. (2005). Economic markets as calculative collective devices." Organization Studies 26(8. *Organisation*, *26*, 1229–1250.

Campbell, J. L., & Lindberg, L. N. (1990). Property Rights and the Organization of Economic Activity by the State. *American Sociological Review*, *55*(5), 634–647. JSTOR. https://doi.org/10.2307/2095861

Campos, A. T. (2018). *A Proteção das Indicações Geográficas nos Países do Mercosul* [Dissertação (Mestrado Profissional em Propriedade Intelectual e Inovação)]. Academia de Propriedade Intelectual, Inovação e Desenvolvimento, Coordenação de Programas de Pós-Graduação e Pesquisa, Instituto Nacional da Propriedade Industrial – INPI.

Cerdan, C. (2013). Indicações Geográficas e estratégias de desenvolvimento territorial. In *Indicações geográficas: Qualidade e origem nos mercados alimentares* (Paulo Niederle, pp. 125–150). UFRGS.

COMITÉ TÉCNICO N° 6 "Estadísticas del Comercio Exterior del MERCOSUR," & UTECEM/Secretaría del MERCOSUR. (2019, May). *Informe Técnico de Comercio Exterior*. https://estadisticas.mercosur.int

Curro, R. J. de P. (2009). *Mercosul: A moeda única e suas conseqüências no comércio internacional*. Universidade de São Paulo.

Dobbin, F. (1994). *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*. Cambridge University Press.

Durkheim, E. (1893). *De la division du travail social (The Division of Labour in Society)*.

Commission Delegated Regulation (EU) No 664/2014, no. 664/2014, European Commission (2013). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014R0664&from=en

European Comission. (2020, March 25). *EAmbrosia – the EU geographical indications register*. EAmbrosia – the EU Geographical Indications Register. https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/#

European Commission. (2019). *Monitoring EU agri-food trade: Developments in 2019*. https://ec.europa.eu/info/news/2019-record-year-eu-agri-food-trade-2020-mar-27_en

European Research Executive Agency. (2021). *Chafea*. Chafea - European Commission. https://ec.europa.eu/chafea/agri/en

Regulation (EU) No. 1151/2012, no. Regulation (EU) No. 1151, European Parliament and Council of the European Union (2012). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32012R1151&from=EN

Regulation (EU) No. 1306/2013, no. Regulation (EU) No. 1306/2013, European Parliament and Council of the European Union (2013). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R1306&from=en

Regulation (EU) No. 251/2014, no. Regulation (EU) No. 251 (2014). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014R0251&from=en

Regulation (EU) 787/2019, no. Regulation (EU) 787, European Parliament and Council of the European Union (2019). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019R0787&from=EN

European Union. (2020a, November 25). *Eurostat—Data Explorer*. Eurostat. http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

European Union. (2020b, November 25). *Statistics | Eurostat*. Https://Ec.Europa.Eu/Eurostat/Databrowser/View/Tps00001/Default/Table?Lang=en. https://ec.europa.eu/eurostat/databrowser/view/tps00001/default/table?lang=en

Regulation (EU) No. 1308/2013, no. Regulation (EU) No. 1308/2013, of the European Parliament and Council of the European Union (2013). https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013R1308&from=EN

Eurostat. (2020). *Main goods in extra-EU exports—Statistics Explained*. Main Goods in Extra-EU Exports. https://ec.europa.eu/eurostat/statistics-explained/index.php/Main_goods_in_extra-EU_exports

Fligstein, N. (1993). *The transformation of corporate control*. Harvard University Press.

Fligstein, N. (1996). Markets as Politics: A Political-Cultural Approach to Market Institutions. *American Sociological Review*, *61*(4), 656. https://doi.org/10.2307/2096398

Fligstein, N. (2001). Social Skill and the Theory of Fields. *Sociological Theory*, *19*(2), 105–125. https://doi.org/10.1111/0735-2751.00132

Fligstein, N. (2002). *The Architecture of Markets: An Economic Sociology of Twenty-first-century Capitalist Societies*. Princeton University Press.

Fligstein, N. (2008). *Euroclash: The EU, European identity, and the future of Europe*. Oxford University Press.

Fligstein, N., & Dauter, L. (2007). *The Sociology of Markets* (SSRN Scholarly Paper ID 1077634). Social Science Research Network. https://papers.ssrn.com/abstract=1077634

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, *91*(3), 481–510. JSTOR.

Granovetter, M. (2017). *Society and economy*. Harvard University Press.

Hodgson, G. M. (2006). What Are Institutions? *Journal of Economic Issues*, *40*(1), 1–25. https://doi.org/10.1080/00213624.2006.11506879

Ilbery, B., & Kneafsey, M. (1999). Niche Markets and Regional Speciality Food Products in Europe: Towards a Research Agenda. *Environment and Planning A: Economy and Space*, *31*(12), 2207–2222. https://doi.org/10.1068/a312207

Impulso de Denominaciones de Origen fortalecen producción Nacional | SAPI. (n.d.). Retrieved November 26, 2020, from http://sapi.gob.ve/impulso-de-denominaciones-de-origen-fortalecen-produccion-nacional/

INPI. (2020, November 26). *Pedidos de Indicação Geográfica no Brasil*. Instituto Nacional da Propriedade Industrial. https://www.gov.br/inpi/pt-br/servicos/indicacoes-geograficas/pedidos-de-indicacao-geografica-no-brasil

Instituto Nacional de Vitivinicultura. (2020). *Indicaciones Geográficas y Denominaciones de Origen Reconocidas y Protegidas de la República Argentina*

(https://back.argentina.gob.ar/sites/default/files/i.g._y_d.o.c._de_la_republica_argentina_web_inv_1.pdf_.pdf.pdf_.pdf).

International Monetary Fund. (2020, October). *Report for Selected Countries and Subjects—Mercosur*. IMF. https://www.imf.org/en/Publications/WEO/weo-database/2020/October/weo-report

Mackenzie, D. (2008). *An Engine, Not a Camera: How Financial Models Shape Markets*. MIT Press.

Mancini, M. C. (2013). Geographical Indications in Latin America Value Chains: A "branding from below" strategy or a mechanism excluding the poorest? *Journal of Rural Studies*, *32*, 295–306.

Mercosul. (1995). *Protocolo de harmonização de normas sobre propriedade intelectual no mercosul em matéria de marcas, indicações de procedência e denominações de origem*. https://www.mre.gov.py/tratados/public_web/DetallesTratado.aspx?id=2ooBwPZqYBYDyHTjMx+HmQ%3d%3d&em=lc4aLYHVB0dF+kNrtEvsmZ96BovjLlz0mcrZruYPcn8%3d

Mercosur. (n.d.). *Organigrama*. Retrieved March 8, 2021, from http://www.mercosur.coop/Organigrama

Mercosur. (2020, November 25). *Sitio Oficial del MERCOSUR*. MERCOSUR. https://www.mercosur.int/

Ministerio de Agricultura, Ganadería y Pesca. (2020, September 9). *Dirección Nacional de Alimentos y Bebidas—Indicación geográfica y denominación de origen*. http://www.alimentosargentinos.gob.ar/HomeAlimentos/IGeo/productos_reconocidos.php

Nau, H. H., & Steiner, P. (2002). Schmoller, Durkheim, and Old European Institutionalist Economics. *Journal of Economic Issues*, *36*(4), 1005–1024. https://doi.org/10.1080/00213624.2002.11506533

North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, *5*(1), 97–112. https://doi.org/10.1257/jep.5.1.97

Parrott, N., Wilson, N., & Murdoch, J. (2002). Spatializing Quality: Regional Protection and the Alternative Geography of Food. *European Urban and Regional Studies*, 21.

Powell, W. W., & DiMaggio, P. J. (2012). *The New Institutionalism in Organizational Analysis*. University of Chicago Press.

Prosur Proyecta. (2020, November 26). *Secreto Industrial*. Prosur Proyecta - Uruguay. https://www.prosurproyecta.org/uruguay/categoria-explorador/secreto-industrial/

Raud-Mattedi, C. (2005). A construção social do mercado em Durkheim e Weber: Análise do papel das instituições na sociologia econômica clássica. *Revista Brasileira de Ciências Sociais*, *20*(57). https://doi.org/10.1590/S0102-69092005000100008

Schneider, S. (2016). Mercados e Agricultura Familiar. In *MARQUES, F. C. (Org.); CONTERATO, M. A.. (Org.); SCHNEIDER, S. (Org) Construção de Mercados e Agricultura Familiar: Desafios para o desenvolvimento rural.* (1o., pp. 93–142). Editora da UFRGS.

Smelser, N. J., & Swedberg, R. (Eds.). (2005). *The handbook of economic sociology* (2nd ed). Princeton University Press ; Russell Sage Foundation.

Steiner, P. (2017). A Plea for a Weberian Economic Sociology—Mark Granovetter, Society and Economy. Framework and Principles (The Belknap Press of Harvard University Press, 2017). *European Journal of Sociology / Archives Européennes de Sociologie*, *58*(3), 545–547. https://doi.org/10.1017/S0003975617000352

Stone Sweet, A., Sandholtz, W., & Fligstein, N. (2001). *The institutionalization of Europe*. Oxford University Press.

Tonietto, J. (1993). *O conceito de denominação de origem: Uma opção para o desenvolvimento do setor vitivinícola brasileiro.* Empresa Brasileira de Pesquisa Agropecuária - Embrapa. http://www.infoteca.cnptia.embrapa.br/handle/doc/537226

Walder, A. G., Luo, T., & Wang, D. (2013). Social stratification in transitional economies: Property rights and the structure of markets. *Theory and Society*, *42*(6), 561–588. https://doi.org/10.1007/s11186-013-9203-2

Weber, M. (2019). *Economy and society: A new translation*. Harvard University Press.

White, H. C. (1981). Where Do Markets Come From? *The American Journal of Sociology*, *87*(3), 517–547.

White, H. C. (2002). *Markets from Networks: Socioeconomic Models of Production*. Princeton University Press.

WTO. (1994). *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)*. World Trade Organization. https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm

4. Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union

Abstract: The agrifood products market has never before contained as many niches than it does at this moment in history. The use of geographical indication (GIs) is one of the oldest ways of granting protection for and promoting these goods. Although they date back thousands of years, only since the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement has there been a common understanding in regard to their use. Although the GI system has the same structure globally, each region shows different performance. Therefore, the influence of institutions in this market is still an enigma to be explored. In this work, we sought to compare the performance of Mercosur and the European Union in relation to GI products and categories in this exchange arena by analyzing e-retail supermarkets. To do so, we collected data from 44 online supermarkets from both economic blocs and analyzed the relevant attributes of the products offered. Then, we compared both blocs through the use of graphics and economic sociology tools. We present novel results relating to differences in GI performance, discuss the reasons for such differences and examine the construction of the market. Our results show that the EU had significantly more products than Mercosur and had a wider variety of GI products on e-retail shelves. Moreover, in the EU, the advertised products originated mainly from within the economic bloc, whereas the majority of GI products advertised in Mercosur originated primarily from abroad. This difference indicates to dominance of the EU' systems, demonstrating that its institutions are effective in terms of trade and commerce development mechanisms. However, in both blocs, a restricted number of categories and registers were found.

Keywords: economic sociology; geographical indication; European Union; Mercosur; market arena; e-retail; comparative approach.

4.1. Introduction

The agrifood products market has never before contained as many niches as it does at this moment in history. One of those niches, in particular, has been around for thousands of years. However, it only gained official label status in the 18th century in the form of geographical indications (GIs). Official designations of this nature have their origins in Portugal, with Port wine, which had its production rules and characteristics established by the Marquis of Pombal who created a specific public company to deal with its case. In France, the pioneering Portuguese spirit was echoed years later by standardizing a protection system for agrifood products and wines based on

characteristics arising from their places of origin. According to Barham (2003), GIs establish their differentiation of products on natural, human and historical factors. The sum of these three factors comprises what Allaire (2018 p. 63), based on the work of Goodman (2002), refers to as "the immaterialization of food and the institutionalization of quality", a concept that goes far beyond the specific soil and climate of a region capable of providing specific characteristics to certain products.

Although they date back thousands of years, this type of product has only recently gained official character under French, Portuguese and Italian legislation, among those with greater prominence. However, this market is too complex to be formed solely by the institutional factors. Ilbery and Kneafsey (1999) demonstrate that the niche market for local specialty food products (SFPs) is located in the intersection between producers and institutional and consumer networks. The point of intersection of all these networks of actors is in the arena of exchange. A significant number of works focus on the products or consumers. However, little attention has been given to the arena itself. For this reason, this work's importance is to shed light on the materialization of commerce in the arena of economic action and the differences between Mercosur and the European Union on this matter.

Works such as that by Kenney et al. (1989) and Bonanno and Constance (2001) show the neo-Fordist process by diffusion of a model based on mass consumption and production. This process resulted in an increasing homogenization of agriculture and food production worldwide. This fact is highly relevant in such a specific nature since GI labels intend to promote a more authentic and unique food (Broude 2005). This paradox could result from the structural impacts of a global consuming/production process in different countries due to its socio-economic position (Wallerstein 2011). How institutional policies affect these products' impacts on the final customers is crucial for understanding this market's functioning (Fracarolli 2021). Recent work suggests that this differentiation reflects on retail prices (Deselnicu et al. 2013). Additionally, GI can function as a relevant marketing tool (Agostino and Trivieri 2014; Dogan and Gokovali 2012; Lamarque and Lambin 2015; Mancini 2013; Teuber 2010). The market theory proposed by Allaire (2010), Fligstein (1996, 2008a, 2008b) and Fligstein and Dauter (2007) might answer some of these issues.

Over the last few years, many efforts were taken to encourage the market to provide alternatives with intrinsic food values. One known origin-related path is localized agrifood systems (Fernández-Zarza et al. 2021; E. Barham and Sylvander 2011). Many

scholars have studied the strategy of trust-building through GI. However, Dias and Mendes (2018) show that, despite the growing number of published articles, most of them focus on southern European countries, are concentrated on four topics and are predominately empirical. Thus, there is a lack of literature comparing Mercosur and the EU, electronic commerce regarding such products, as well as multiple product market analysis, since most works focus on a single or a few products (Dias and Mendes 2018; Roselli et al. 2018; Teuber 2010; Renard 1999; Agostino and Trivieri 2014; Addor and Grazioli 2002). As such, the present work seeks to help fill the gap in the literature about this issue. Although this market has the same conformation structure globally, apparently, each region of the globe has a different proportion of each element. For example, the GI market in the European Union (EU) has reached incomparable numbers of registers compared to all other regions. In South America, on the other hand, the Southern Common Market (Mercosur) has an even greater area of production and a greater diversity of agrifood products. However, this diversity apparently has not developed in this specific market. To better understand this market's functioning, this work seeks to compare the difference between the performance of GI products and categories on this market exchange arena in Mercosur and the European Union by analyzing the e-retail supermarkets. To answer this question, this work understands that only a thorough investigation of this link in the market can provide the pieces of this complex puzzle. What are the characteristics of this market inin both blocs? What sort of goods do both markets address and sell? What are the commercialized products' origins in both blocs? Due to little comparative attention having been paid to the matter in terms of economic blocs, this work focuses on the market arena for GI products and its differences between Mercosur and the EU.

To answer that question, this initial research paper proposes to deepen the existing research by looking at the diversity of product offerings on the websites of significant retail supermarkets from selected countries of both the EU and Mercosur in a quantitative manner. The investigation considers e-retail supermarkets in Portugal, Spain, France, Italy, Germany, Greece and Poland on the European side. In addition, the research looks into e-retail supermarkets from Argentina, Brazil, Paraguay and Uruguay on the South American side. In the sections that follow, the work uses economic sociology to illuminate the market issue. Finally, both economic blocs' markets are analyzed to point out the differences between them on the practical effects of institutional support of Intellectual Property (IP) based on the data collected in the field.

By doing so, this work hopes to identify the practical functioning of the GI market in Mercosur and the EU's electronic supermarkets. Additionally, economic sociology theory is used with the intention to reveal corporate control issues, the embeddedness of the state and productive groups relation to this economic niche, and the market-driven strategy of promoting specific product categories.

The paper starts by presenting the formation of agrifood niches through the changing of food production–consumption logic due to globalization, followed by how economic sociology tries to explain market functioning through the theory of markets and institutional influence. Additionally, it develops the state of the art by bringing present considerations of the GI market into the findings on labeling efforts to decommodify it.

After this, it explains the methodology used for collecting data from available online supermarkets to characterize the products, the categories found and the origins of those products. Additionally, it graphically explains the phases of analysis followed in the present work.

Subsequently, the results found for the analyzed data are displayed, the graphic results are presented, and the major figures discovered relating to the collected material are described. This section is followed by a discussion of these results, including analyzing them, matching them to the existing economic sociology literature, and their implications on the market. Finally, the work ends with a summary of the developed work, its findings and suggestions for future works and policies towards market evolution.

4.2. Agrifood niche pathway

4.2.1. Production models

Globalization is a comprehensive, widespread phenomenon with conceptual divergences. However, regardless of the possible interpretations, this phenomenon affects the relations between people and communities (Held and McGrew 2007) and implies the massification and standardization of consumer goods inherited from Fordism (Bonanno and Constance 2001). Thus, it has an effect on the process of inserting and marketing commodities in the global agenda. Simultaneously, producers of other types of agricultural goods need other productive arrangements to achieve success and remain in the market. This adaptation is vital for those on the periphery and semi-periphery of the world (Wallerstein 2011).

With this productive logic in force on the planet, agricultural producers seek to differentiate their products to meet demand by adding value resulting from territorial

appreciation (Artêncio, Giraldi, and Galina 2019). However, as producers struggle as a result of globalization's impacts, consumers start to demand less standard or industrialized products due to food's mass production. This sort of demand is what Allaire and Sylvander call the "logic of quality" in opposition to a "productivist logic" (1997). This paradox impacts the change of the productive logic from scale to scope as it becomes impossible for certain rural actors to produce commodities and obtain gains by production volume.

Due to the intriguing effects produced in this adaptation of productive logic, most of the works investigating the GI market focused on how the producers address the economic aspects (Allaire 2010; Dervillé and Allaire 2014; Giovannucci et al. 2009; Menapace and Moschini 2012; 2014; Moschini, Menapace, and Pick 2008; Swinnen 2010; Tregear et al. 2007). However, there is a scarcity of studies seeking to unveil the general effects of how institutional policies, mainly arising from IP, reflect product offerings and prices on retail markets. Nevertheless, this broad approach is necessary and capable of providing clues beyond the local individual cases addressed by much of the literature. Additionally, it presents itself as necessary due to the recent increasing valorization of food quality, especially those relating to the origin and culture (Fernández-Zarza et al. 2021; Gocci and Luetge 2020). On this matter, culture plays a significant role through identity values imbued with the characterization of food, which are stated as a clash of tradition and global value chains (O'Brien and Creţan 2019; Olofsson et al. 2021; Truninger and Sobral 2011).

Globalization is a process of production and consumption of goods that impacts each country in different ways. When it comes to agriculture, there is no difference. This process impacts the agri-food sector by severely industrializing goods by concentrating those products on food corporations and over logistics of massive production (Bonanno and Constance 2001; Renard 1999). As an effect of such a process, authors such as McMichael (1996) point out that communities must reposition themselves through niches to resist globalization's pressure. Furthermore, such a process demands local, regional and national identities to sustain culture-related food (Beriss 2019). Through this it becomes clear that globalization impacts nation states differently in terms of their global position and pushes the market towards niche formation to preserve culture-related agrifood products such as GI.

4.2.2. Institutional mechanism

In the middle of this formatting process, the global system based on transnational trade, and the circulation of people and goods' circulation is continually increasing. However, price formation rarely results from an optimum trade between atomized buyers and sellers regulated by an invisible hand. Agrifood goods are no different. As pointed out by McMichael (1997, 630), "capitalist organization of agriculture is a political process, and is central to the dynamics of an evolving state system (including supra-statal institutions)."

The New Economic Sociology (NES) proposes the rejection of causal monism as an explanatory source of social causes. Granovetter proposes an embeddedness approach to economic action, an economically situated form of social action, and economic institutions as social constructions (1985, 1990, 2018). The author resumes the association of economics and sociology approached by Weber, Polanyi and Durkheim. Thus, from the NES, a strand addresses institutions as abstract structures that act as social constructions, socially related to other social constructions, that operate economic actions (Abramovay 2000, 2004; Fligstein 2001; Smelser and Swedberg 2010; Steiner 2017).

In the sociological field, the Theory of Markets points out possible paths to forming and stabilizing this niche. Fligstein and McAdam (2012) suggest that most social action occurs in "meso-level social orders" or fields. These fields are those in which the actors involved cooperate to create and stabilize a market. In the agrifood case, the detachment of market niches such as GI can obey similar cause and effect. By collaborating to cooperate and define the unique characteristics of their products, which, therefore, they need a different degree of protection, groups of producers or their representatives can create formal institutions. Such institutions then have a dialogue with the state. In turn, the latter can act by granting such differentiated treatment to a greater or lesser degree.

The construction of these institutions allows, through IP rights, the creation of a new, highly specialized, premium market, which has a reduced number of actors and is legally protected. Consequently, this newly created market is stabilized by legal devices designed and regulated by the state or suprastate entities. Thus, the theory developed by Fligstein (2002) does not restrict specific segments but offers a general conception of the varieties of capitalism resulting from globalization. This argument is analogous to that observed by Belletti, Marescotti, and Touzard (2017) when attending to the relationships between goods with GI and private, collective and public interventions.

It is precisely in this new market for protected agrifood products that the intention is to examine the retail market's practical effects. Thus, the existence of institutions with a greater or lesser degree of strength may have an impact on their final commercial stage.

4.2.3. Market scenario

Several works point out that premium agrifood products such as GI benefit from labeling, and the consequent price mark-up of them is the issue that collective producers look for when protecting this IP (Bureau and Valceschini 2003; Crespi and Marette 2003; Deselnicu et al. 2013; Chilla et al. 2020). Although the premium varies between products (Deselnicu et al. 2013), the effects of product offerings and the differences between both markets are objects of this work.

It is well-known that SFPs are more expensive than ordinary ones. However, recent findings show that consumers' willingness to pay for and preferences for SFPs show better results when based on trust and when studies are related to consumers rather than retail shops (Cacciolatti, Garcia, and Kalantzakis 2015; Calvo-Porral Cristina and Lévy-Mangin Jean-Pierre 2017; Giraud, Bond, and Bond 2005; Lamarque and Lambin 2015). Besides, there is little work in the comparative scope between Mercosur and the EU which may show the characteristics and mechanisms that make this market more functional. Such analysis of articles on the product categories or product origin is well developed on Dias and Mendes's (2018) work.

While in Europe, this market is consolidated and has a long regulatory history, it is still seen as a potential market in Latin America. However, with the signing of the broadest IP agreement in the 1990s, the Trade-Related Aspects of Intellectual Property Rights (TRIPS), it became clear that the development of protected brands and GIs is not limited to the normative aspect. Previous works point out GI as a strategy for rural development (Agarwal and Barone 2005; Agostino and Trivieri 2014; Barjolle, Paus, and Perret 2009; de Mattos Fagundes et al. 2012; Ilbery et al. 2001; Roselli et al. 2018). However, these works suggest that other factors, such as commercial strategies, public policies and product qualification, play an influential role. In short, in commercial terms, agrifood products have the potential for commercial success for participants since they are linked to other strategies besides IP protection.

While some authors differentiate the GI market from other forms of certification and labeling (Galtier, Belletti, and Marescotti 2008; Grote 2009; Laurent and Mallard 2020), others treat it analogously to other labels, such as organic labels (Aprile, Caputo, and

Nayga Jr 2012; Menapace et al. 2011; Roselli et al. 2018). The work of Galtier, Belletti, and Marescotti (2008), for example, addresses GI as a label qualitatively different from other certifications in the case of coffee. The authors understand that other certifications are only the standardization of qualitative attributes. At the same time, GI would be a genuine manner capable of "decommodifying" the market due to the unique characteristics (Galtier, Belletti, and Marescotti 2008) and also a way to strengthen the rural networks towards the development of smallholders (Oriana et al. 2021). The present work argues that IP's protective arrangements constitute institutions that create a new market and, therefore, allow different rules, which result in asymmetries concerning ordinary products.

In regional terms, just like the number of GI registrations, there is a predominance of works that address the European context in comparison to studies that consider Latin American countries. This scenario highlights the importance of addressing the theme, which is used worldwide, in comparative terms, to measure their differences. Likewise, the deepening of the retail market's effects in both the countries that make up Mercosur and the EU may show strategies used by producers and traders of products with GI to a greater or lesser degree of success. The economic blocs in question have built different agrarian models, which may or may not be part of the causal explanation of the proportionality of using this agrifood products market tool.

4.3. Methodology

As a comparative proposal of analysis, this work recognizes the necessity of adequate different realities. Social sciences often require the use of common concepts in both compared realities and acknowledge the sociocultural differences between them, and do not assume a universality (Mahoney, 2007; Smelser, 1967). Thus, this work compares the market in the same arena of the same modality of the IP protection of products and considers all the differences considered by Fracarolli (2021). Additionally, Sartori (1991) points out the need for a finalistic means of comparison, for which reason this work seeks to find out how the market in both regions differs and the reasons for that, including whether it could be improved.

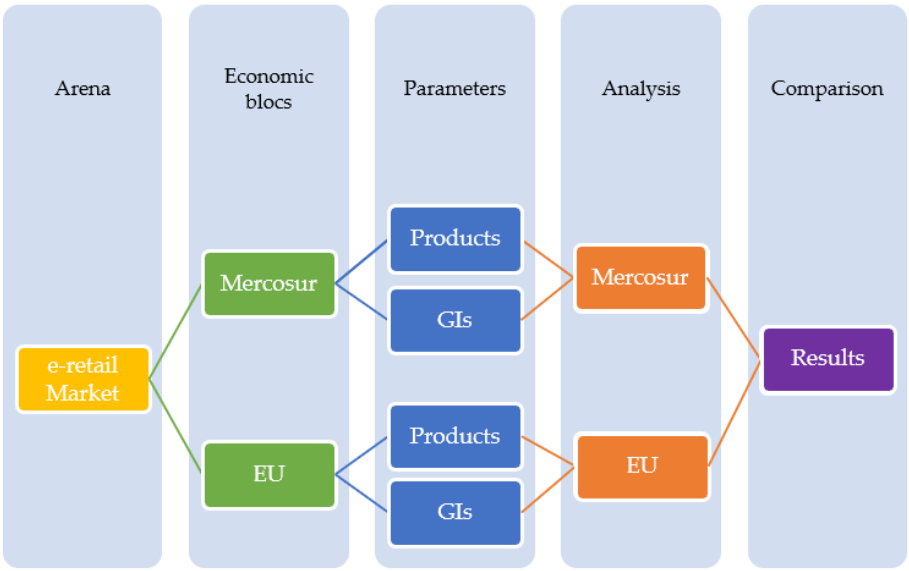
An alternate comparative approach proposed by Ragin (2014) describes a modern construction of the comparison, based on the calibration, of the qualitative outcomes and the set-theoretic relations regarding the different realities. This way, the present work

understands that a more in-depth explanation is required. Thus, it uses economic sociological tools as an interdisciplinary approach (Smelser, 2003) to address the problematic and leading causes and reasons, as the ones proposed by Swinnen (2010; 2016; 2007) on niche agrifood market formation and by Fligstein (2002; 2008a; 1996; 2008b) on how markets stabilize and are constructed. The quantitative data will be used to support the qualitative analysis. Hence, considering the contributions of both authors, the hypothesis assumed is that the EU's market will have a significantly more endogenous influence on its products. Additionally, the countries from southern Europe will have a substantial dominance in the markets of both economic blocs.

This work uses mixed methods of quantitative and qualitative research design. It compares the categories of product offerings, their origin, the penetration of GI products, and the difference between both economic blocs. In addition, the work maps the sources of GI agrifood products, excluding wine, aromatized wines and spirits. Finally, the work also evaluates the cultural aspects involved in constructing the niche market regarding IP.

This research consists of the comparison of three essential aspects of GI in retail markets. The first one is to analyze the offerings of GI agrifood products advertised by web retail supermarkets. The second is to map the origins of these goods, comparing Mercosur and the EU. The third one is to analyze the GI systems according to their inside and outside influence on web retail super- and hypermarkets. The sum of these three aspects can indicate how institutions build GI agrifood markets in each bloc.

The analysis consists of five parts. Firstly, the arena of exchange where the transaction of goods happens is selected—in this case, the chosen arena is the super- and hypermarkets available online, i.e., the e-retail market. Secondly, the regions where these trades happen are chosen—since this work aims to compare two economic blocs, Mercosur and the EU, these are the regions of the randomly selected e-retailers. Thirdly, data relating to the number of products and the variety of GIs present in online retail supermarkets of these blocs is collected. Fourthly, the analysis of these indexes is undertaken in both categories, considering GI categories and their origin. Finally, the comparison between Mercosur and the EU is conducted. After that, a discussion of the findings takes place and possible outcomes are debated. Over the following subsections, we detail each step of this analytical work according to Scheme 1.



Scheme 1. Methodology of analysis of the GI market arena

Since "markets are socially constructed arenas where repeated exchanges occur between buyers and sellers under a set of formal and informal rules governing relations among competitors, suppliers, and customers" (Fligstein & Calder, 2015, p. 1), they also need to be also investigated while considering these biases. Thus, the intention is to collect data indicating the GI products markets' differences from the perspective of both economic blocs.

Considering specific issues, it is necessary to clarify some details. This work involved a search for products and respective GIs on retail supermarkets and hypermarkets that allow web shopping. If the website requires an address to shop, the center of the country's most populated city is used. All GI agrifood products registered on the EU or Mercosur database were considered. Only agrifood products were collected and considered for this work; wines, spirits, and aromatized wines were not considered.

However, before searching the products sold across all countries, it was necessary to find the existing GIs. To do that, it is crucial to understand that there is a single register source for the EU, but there are independent ones for each of Mercosur's countries, according to Fracarolli (Fracarolli, 2021). Therefore, this work contemplated all EU registers and all registers in each Mercosur country. On the European side, this work examined the EU database at eAmbrosia (European Commission, 2020). Overseas, the considered data were from the available dataset from each authority from Argentina, Brazil, Paraguay and Uruguay (INPI, 2020; Ministerio de Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020); however, Paraguay is still in the process of registering

products and Uruguay only has registers of wine products. Since this work does not contemplate wines, spirits, or aromatized wines, there were no products from Uruguay or Paraguay.

For the data collection, we went through the websites of four major grocery retail supermarkets for all of the active members of Mercosur (Argentina, Brazil, Paraguay and Uruguay) and the most representative EU members (Italy, France, Spain, Portugal, Greece, Germany, and Poland). The criterion for choose these countries was the need to pick the most relevant GI markets of each. In the Mercosur case, all active members were selected due to most of the available countries allowing for comparison. Additionally, these countries chosen from the EU represent over 80% of the EU's GI registers, which ensures a significant number of registrations for a relevant comparison. For each supermarket, all products with a GI label registered in the respective country were considered.

This work uses the EU criteria to separate the products into comparable categories available at the European Commission on eAmbrosia (European Commission, 2020). The categories for agrifood products are: 1.1 Fresh meat; 1.2 Meat products; 1.3 Cheeses; 1.4 Other products of animal origin; 1.5 Oils and fats; 1.6 Fruits, vegetables and cereals fresh or processed (FVC); 1.7 Fresh fish, mollusks and crustaceans and derived; 1.8 Others such as spices; 2.1 Beers; 2.2 Chocolate and derived; 2.3 Bread, pastry, cakes and alike; 2.4 Beverages from plant extracts; 2.5 Pasta; 2.6 Salt; 2.7 Natural gums and resins; 2.8 Mustard paste; 2.9 Hay; 2.10 Essential oils; 2.11 Cork; 2.12 Cochineal; 2.13 Flowers and ornamental plants; 2.14 Cotton; 2.15 Wool; 2.16 Wicker; 2.17 Scutched flax; 2.18 Leather; 2.19 Fur and; 2.20 Feathers.

4.3.1. Analysis

The proper analysis of the captured data in a single presentation of the numbers does not represent the market's complexity. The use of graphical tools is significatively more representative and able to demonstrate in-depth aspects. Considering the broad-spectrum analysis, two approaches are necessary to bring light to this market. The first considers the number of GI products in the online markets of both Mercosur and the EU and the respective origins in each category. The second considers the diversity of GI registers in both economic blocs and their respective countries by category. To do so, using this data, a set of graphics will demonstrate the above mentioned.

The first analysis considers the number of products found over the 44 e-retail markets. Data will be analyzed from both Mercosur and the EU in terms of the origin of the found products and in terms of category representations on the product offerings. These data will show the most relevant type of products commercialized in Europe and Mercosur and which are the most appropriate sources of these products.

The second analysis relates to the diversity of the GI products commercialized in e-retail markets in both blocs. Data will be presented regarding the origin of the GIs found and the categories in which GI is sold in these markets. These results will show how these registers' diversity is presented and how this is reflected in the e-retail market.

After all data and graphics are presented, the paper analyses the numbers, perspectives and meanings of all of the data. The data and graphics will show how the market behaves in terms of the number of products and the sector's relevance. Each part of the graphics will appropriately represent the category's share and its influence on this market. Afterward, in order to be comparable, both Mercosur and the EU will be put side by side on the treemap so they can be more intuitively represented. By doing so, the work focuses on the embedded aspects of local/global issues, such as the importance of niche markets. This methodology aims to clarify some aspects, such as the role of origin-related production pointed out by McMichael (1996) and the market's consumer arena objective as questioned by Hinrichs (Hinrichs, 2000). Additionally, as demonstrated before by Belletti, Marescotti, and Touzard (2017), this work's results can improve the policy towards proper regulation and valorization through development by enhancing knowledge of this market.

4.3.2. Comparisons

After all data are collected and analyzed separately, quantitatively and qualitatively, it is possible to compare this research paper's two main aspects. Firstly, what is the difference between Mercosur and the EU for the reality of GI product commerce in online retail supermarkets? By comparing the number of products, we expect to see the difference between both in terms of product offerings and in terms of diversity of products. By comparing GI registers, we hope to see the reflection of how effective the system is in reflecting the registers into the actual market.

Secondly, by examining the treemap graphics, the comparison between both blocs will show the actual niche formation: i.e., from whom, to whom, and the categories of goods that are more relevant to this market. The results are expected to show how

significant the GI agrifood market is in the e-retail sphere in both economic blocs via a qualitative and quantitative approach.

4.4. Results

This collected data resulted from the scraping of 2184 products from 44 online supermarkets from 11 countries. This search presented the selling of 314 different GI registered products. GI products' search was conducted on four of the most popular grocery retail supermarkets in each country. Although some other relevant supermarkets could have been part of this research, many did not have an online shop. The results shown above are separated initially into economic blocs and posteriorly by the number of products and GI diversity.

4.4.1. European Union

The empirical results of the data collection contained information from 28 online supermarkets across the eight countries. The survey found 1784 products labeled as GI products. From those products, 462, or 25.90%, were found in French supermarkets, with France being the country with the most products. Spain, on the other hand, with 128, or 7.17%, meaning that it was the country with the least number of products. Besides, of the 1706 GI products from the countries surveyed, the research found 59 other products from Austria, Denmark, Netherlands, and Ireland within the economic bloc, a total of 98,93% of the GI products from the bloc. Besides, seven other GI products from the United Kingdom (UK) and 12 from Cambodia were from outside the bloc, a total of 19 or 1.07%. No products from the Mercosur were found. Nonetheless, 1005 or 56.33% of the products belonged from the 1.3 category, the most relevant one. The categories 1.9, 2.0, 2.2, 2.4, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19 and 2.20 presented zero products.

All these 1784 products constituted 289 different GIs. Besides the GIs from the surveyed countries, there were 276 different GIs from the surveyed EU countries, ten other GIs from other EU countries and three from outside the bloc. Italian markets showed 81, or 28.03%, different GIs from the researched countries, as the one with the greatest numbers. On the other hand, Poland has six, or 2.08%, different GIs, being the country with the lowest numbers. From the 10 GIs found from other EU countries, one belonged to the 1.2 category, and the other nine were found in the 1.3 category. With regards to the

products from outside the bloc, the survey found two different GIs from the UK and one from Cambodia. Additionally, category 1.3 not only had the greatest number of products but was also the most numerous relevant category in the number of different GIs. Category 1.3 had 105 different GIs, or 36.33%. Since the categories 1.9, 2.0, 2.2, 2.4, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19 and 2.20 presented zero products, no GIs could be summed up.

As presented, the variety of GIs from inside and outside the EU is significantly alike the number of products from inside and outside as well, as presented in Figure 2.

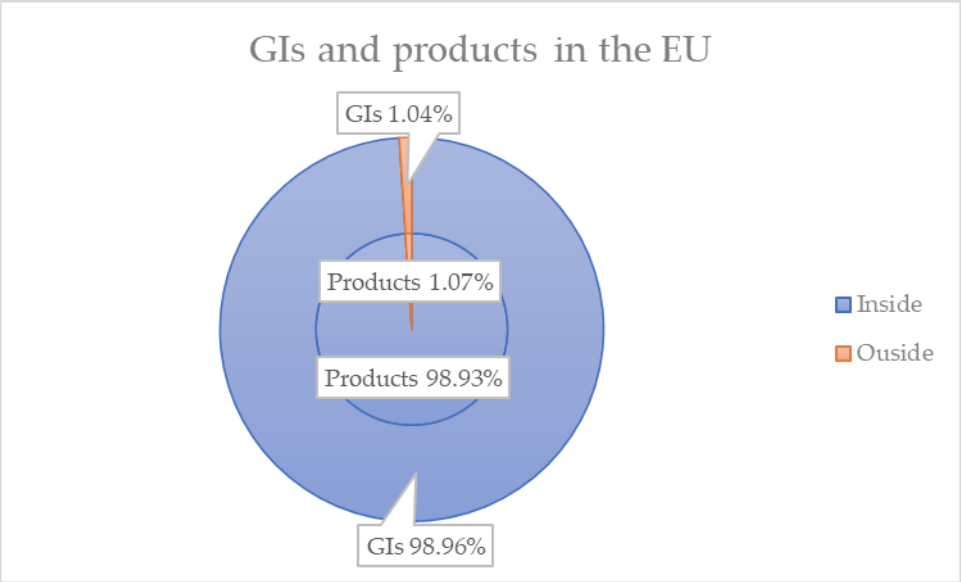


Figure 2. Origin of offered products and GI registers in e-retail markets of the EU.

Figure 2 shows that almost all of the products found in the survey come from countries that belong to the EU. Only about 1% of the products are from outside the bloc. The same happens when it comes to the varieties of GIs found in the EU e-retail markets survey. The GIs from outside the bloc found on the survey are barely representative, as it is only about 1%. This survey demonstrates how protective the bloc is of its own goods and how open it is to goods from outside. It demonstrates a severe protective system and the effectiveness of the EU policy towards valorization of inner goods.

On the other hand, there is a minor difference between GI registers and the number of products in the EU's e-retail markets regarding the categories of products. Such difference is clearly demonstrated in Figure 3.

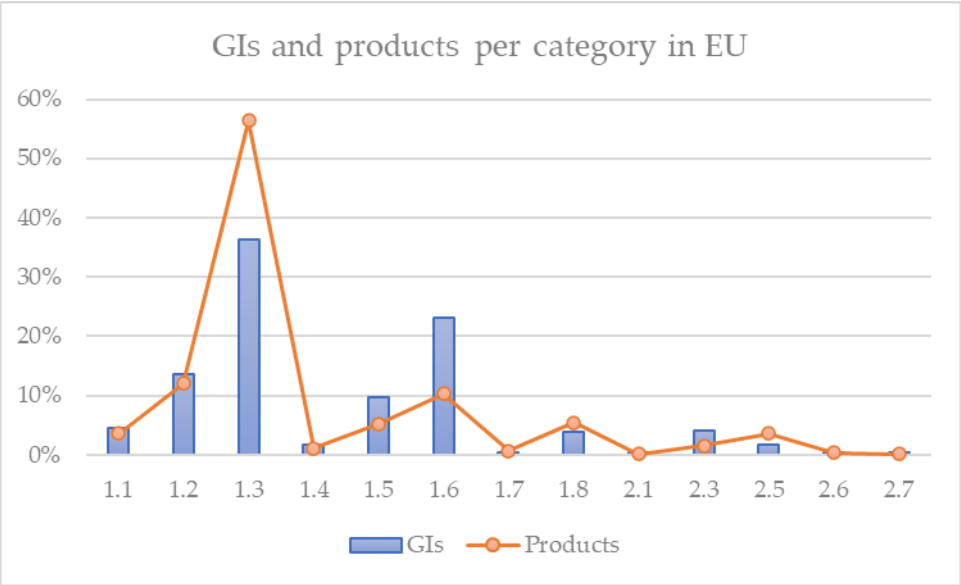


Figure 3. Products and GI registers in e-retail markets of the EU regarding categories.

This second graph (Figure 3) shows a different perspective. Concerning the products found over the course of the survey, it shows similar proportions of both products and varieties of GIs in each category. However, in terms of products, category 1.3 (cheese) has an evident distinctiveness from the others, consisting of almost 60% of products found. Furthermore, in terms of GI varieties categories 1.3 (cheese), 1.6 (FVC) and 1.2 (meat products) all consist of over 10% of products. However, these data also show the system's concentration on promoting a few select categories, predominantly the cheese category.

4.4.2. Mercosur

The results of the Mercosur bloc presented significantly different findings from those of the EU. The empirical results of the data collected information from among the 16 online supermarkets of the four countries. The survey found 388 products labeled as GI products. From those products, 180, or 46.39%, were found in Argentine supermarkets, with Argentina being the country with most products. Paraguay, on the other hand, with 43, or 11.08%, was the country with the least number of products. Additionally, the GI products found from within the bloc were 185, or 47.68%. Besides, all other GI products found were from the EU, a total of 203 or 52.32%. The categories 1.1, 1.4, 1.7, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19 and 2.20 presented zero products.

All these 388 products constituted 25 different GIs. The GIs from Mercosur constituted a total of six, and the remaining 19 were all from the EU. From within the economic bloc, Brazilian markets showed three, or 50%, being the country with the highest numbers. Neither Paraguay nor Uruguay had its products available. All other 19 different GIs were: five in category 1.2; ten in category 1.3; two in category 1.5; one in category 1.6; and one in category 1.8. The EU countries with GI products available across Mercosur's supermarkets were Italy, Spain, Greece, France, Denmark, and Portugal. Additionally, category 1.3 not only had the greatest number of products but was also the most numerous relevant category in terms of the number of different GIs. Nonetheless, 216 or 55.67% of the products belonged to category 1.8, the most relevant one, of which 169, or 78.24% of the 216 products were either coffee or Yerba Mate. All other products from this category were the Aceto Balsamico di Modena from Italy. Category 1.3 had 11 different GIs or 44% of all GIs found in Mercosur. Since the categories 1.1, 1.4, 1.7, 1.9, 2.0, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16, 2.17, 2.18, 2.19 and 2.20 presented zero products, no GIs could be summed up.

Conversely to the results presented in the above subsection, there is a significant difference between the number of products and the diversity of GI registers in Mercosur. Moreover, contrary to the EU, most products and GIs are from outside the economic bloc, as shown in Figure 4.

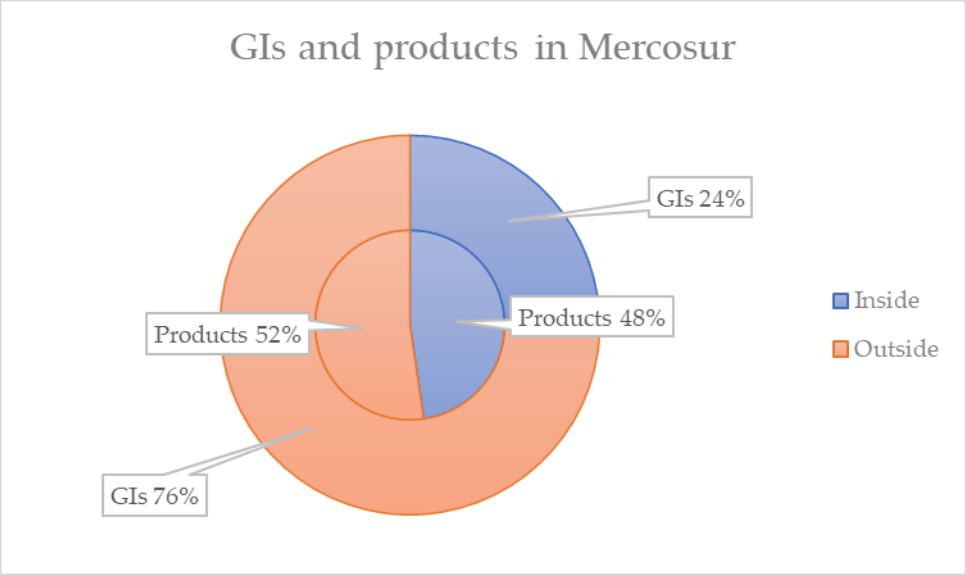


Figure 4. Origin of offered products and GI registers in e-retail markets of Mercosur.

On the Mercosur side, the data evidences a different situation from the EU. In terms of products, more than half of them were from outside the bloc. Likewise, the variety of GI that appeared in the results brings about a scenario where three-quarters of the GIs on the market come from outside the bloc. All of the products and GIs from outside the bloc come from the EU. This demonstrates the influence of the EU system over others, such as Mercosur. Additionally, the proportions demonstrated in this research show each system's capacity to overcome one another.

Regarding the categories that appeared on the South American side, fewer categories were present. Additionally, there is an unmatched proportion of GIs and products found between the categories 1.3 and 1.8, as demonstrated in

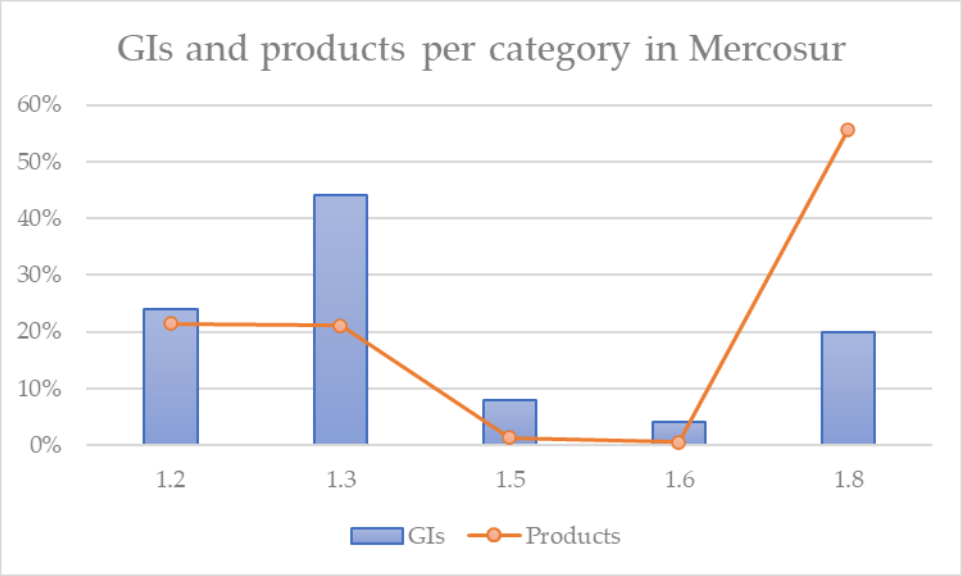


Figure 5. Products and GI registers in e-retail markets of Mercosur regarding categories.

In Figure 5, the results present a disordered situation. Mercosur's findings contained only five categories of products. Unlike the EU, Mercosur does not have registered products in all categories (INPI, 2020), and Paraguay and Uruguay have no registered agrifood products other than wine. Therefore, the results are more a sum of efforts than an aligned strategy. Even the category with the most products (1.8) is substantial due to only one product from inside the bloc (Yerba Mate, from Argentina) and a significant participation of a product from outside the bloc (Aceto Balsamico di Modena, from Italy). Moreover, over 40% of GIs found are European cheeses.

4.4.3. Overview

The overall results show a vast difference in GI products' online market performance between Mercosur and EU. Meanwhile, the number of GI products found is 388 at Mercosur supermarkets and 1784 in the EU, representing 97 products per country for the former and 254.9 for the latter, as shown in Figure 6. It shows the proportions of GI products by their origin found in each group of e-retail markets. The first observation allows the inference that most GI products found in the EU markets are from within its countries, mainly from the Mediterranean ones. On the other hand, in Mercosur's markets, about half of GI products are from outside. The GI products from within are mainly from Argentina.

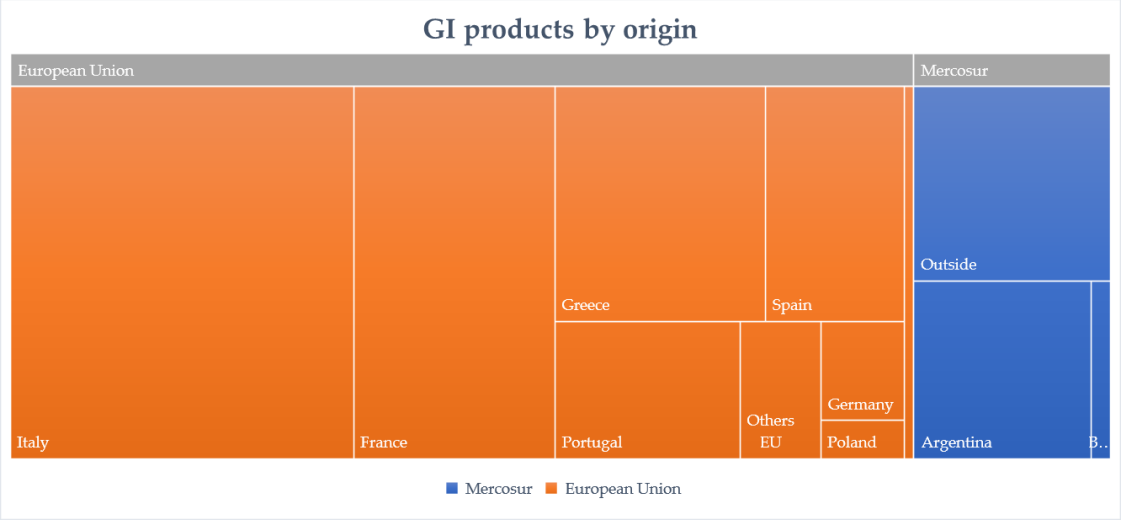


Figure 6. GI products in e-retail markets of Mercosur and the EU according to the origins.

Besides the products, the issue of the origin and proportions of the wide variety of GIs present on the markets of each economic bloc is another important issue to consider. In Figure 7, there is a clear demonstration of the data collected. This graphic shows that the products' origins have a similarity between the number of products and the number of registered GIs present in each bloc. However, there are a few differences, such as the proportion of the variety of GI in Mercosur, which is now more abundant from countries outside the bloc.

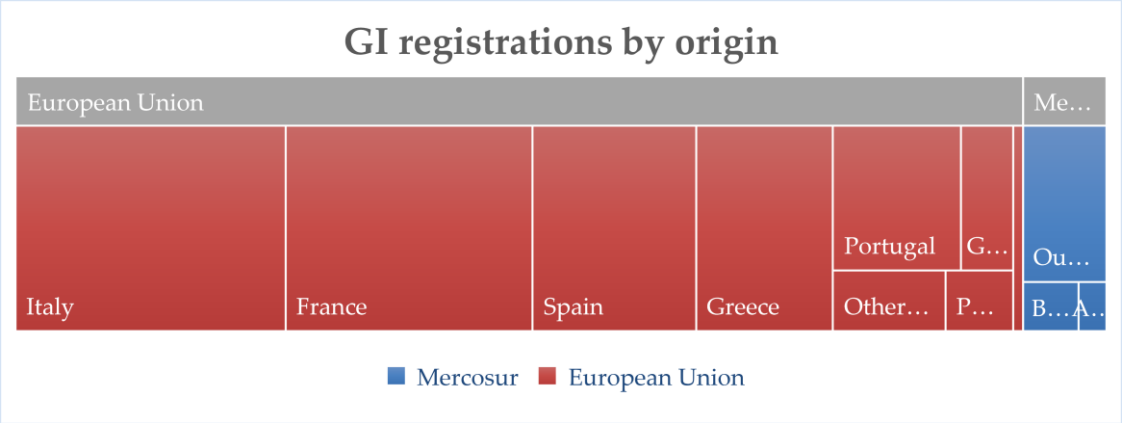


Figure 7. Presence of GIs registrations on Mercosur and in the EU in the e-retail market by country.

One other important aspect of the analysis is the issue regarding the number of registrations in each bloc and the number of GIs actually present on the e-retail market. As shown in Figure 8, only a small portion of registered products appeared in the survey for both blocs.

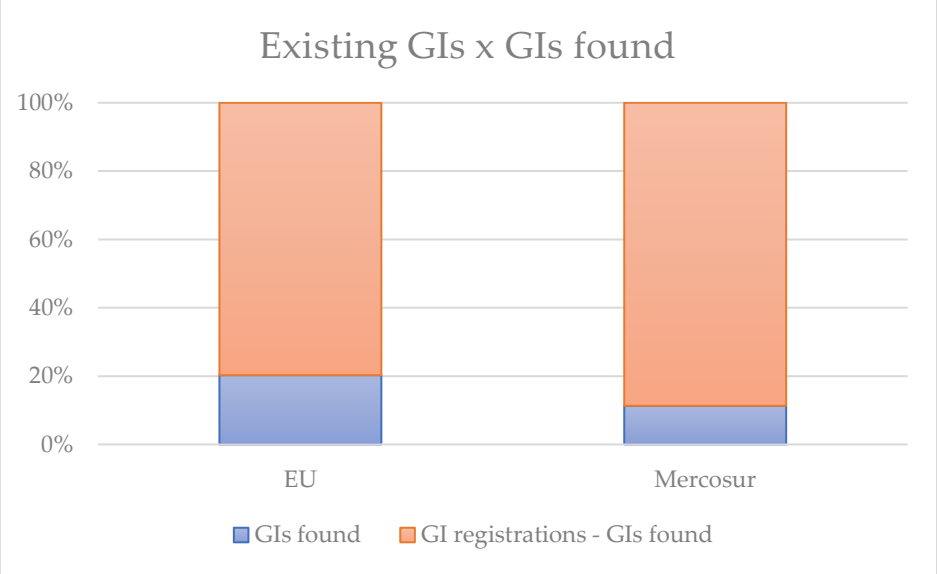


Figure 8. Difference of existing GIs versus GIs found in e-retail market in Mercosur and the EU.

Figure 8 shows that only 286, or 20.23%, GIs were found on the EU e-retail market from 1414 existing intrabloc registrations, while in Mercosur, only 6, or 11.32%, were found from 53 existing GIs. These results allow an inference that in the e-retail market, there is an absence of representation in both blocks, although, in Mercosur, the

representation is even more fragile. This graph demonstrates that even a substantial number of registrations do not guarantee a product's presence in the market—or at least in the e-retail market. Besides, this denotes that whichever economic bloc is in question has an underrepresentation of its protected products. However, considering the abundance of products in the absolute and relative terms that appeared on the survey, the results point to different reasons. The EU has demonstrated a significant number of products and GIs despite the poor results on representation. Therefore, the characteristics suggest that such a scenario is more related to a focused commercial strategy based on a robust institutional system, as is discussed later on. On the other side, considering the absence of products and barely representing GI varieties on major e-retail, the results suggest a discussion of the lack of systematic and coordinated policy towards developing the GI market. Nonetheless, all the possible causes and implications of such a path are discussed in the next section.

4.5. Discussion

The difference between the Mercosur and the EU is evident. Three aspects are crucial for understanding the differences between them: the number and diversity of GI products, the categories of these products and their GI diversity, and the products commercialized in this kind of arena.

The first one relates to the number of products. Figure 2 and Figure 4 show an enormous difference between the blocs on the number of products surveyed in e-retail markets. The EU presented 4.6 times more GI products than in the Mercosur region; however, this is not due to the number of countries, since the EU has 254.9 products per country and Mercosur has only 97. Additionally, the origin of those products is another important fact for this comparison. As presented inFigure 5, only 19 products were from countries outside the bloc, while in Mercosur, the number of products from outside the bloc was 203, more than half of the total. All of the 203 products found in Mercosur's markets were from the EU, and none of the foreign products in the EU were from Mercosur.

This asymmetry indicates that products' presence is not from bilateral agreements but due to a nontariff protectionist strategy of the agrifood market developed by the EU, as endorsed by some works and more relevant in the Mediterranean region (Huysmans, 2020; Huysmans & Swinnen, 2019; Josling, 2006). Additionally, in the EU, the

proportion of foreign products is similar to the variety of GI in the market. On the other hand, in Mercosur's e-retail markets, the proportion of inside products in the market is twice the proportion of the variety of GIs. This is due to the abundance of one specific product from within, Argentine Yerba Mate, as demonstrated in category 1.8 of

Consequently, such a scenario presents the assertiveness of Granovetter's (1985) approach on the association of economics and social action. The clear difference between inner products in each bloc demonstrates that the market is not only a matter of supply and demand but construction of the field. The detachment of this niche category through IP rights configure a field as theorized by Fligstein (2001) and Fligstein and McAdam (2012). Thus, the stabilization of this market involves strengthening the social relationship between the productive class and the state, as supported by Fracarolli (2021) and the argument pointed by Belletti, Marescotti, and Touzard (2017) on the influence on private and public interventions.

However, the creation of the GI label does not guarantee this new field. The institutional support of the state, as pointed by Fracarolli (2021), pushes the market stabilization and promotion not only within territories but towards a conception of control as conceptualized by Fligstein (2002) and tends to protectionist measures, as previously observed by Swinnen (2016; 2007) and Huysmans and Swinnen (2019).

> The second aspect regards the products' categories. There are significant differences between the economic blocs regarding the categories of products available via e-retail in both regions. In comparison, the EU has products in a broader diversity of categories. There were 13 categories of 30 on the electronic shelves of the EU. Among the products found, cheese products stand out, representing almost 60% of all products. On GI variety criteria, the cheese, FVC, meat products and oils represent more than 80% of GIs found, as shown in

Despite all categories, the products and GIs commercialized in e-retail supermarkets focus only on a few types of products. On the other side of the Atlantic Ocean, the scenario is even more restricted. Only five of all these categories had products on display in e-retail markets in Mercosur. Among these products found, such as the EU, the cheese category presented the most GIs on the market, as shown in However, it did not reflect on the number of products on the market. Regarding the products' criteria, category 1.8

had more than 50% of all found products. This is mainly due to the 153 "Yerba Mate" products and the 47 "Aceto Balsamico di Modena" products found in the supermarkets surveyed.

The difference in the variety of products found in both blocs brings the discussion onto the purposes of GI as a form of IP. Since fewer than half of the categories in both blocs had products available in e-retail markets, this raises a question on the reasons for such low performance and underrepresentation. Additionally, it needs to be asked where are these other products are sold and if they are sold. For such questions, further research is necessary. By number of registrations, wines, spirits and aromatized wines are the main focus of the EU GIs. However, this work looks only into agrifood products that exclude those beverages. There are few relevant protected categories for agrifood products presented by Figure 3 and Figure 5. The reasons for seeking such a modality of IP could be either counterfeit protection or economic enhancement and value-adding.

The results found in this research are in accordance with Dias and Mendes's (2018) work regarding the variety of GI products. As discussed by Meloni and Swinnen (2018), Huysmans and Swinnen (2019) and Josling (2006), the southern countries of Europe stand out in this market. Therefore, it is a natural assumption that their product categories are brought into the spotlight. Such an event raises questions about the reasons for these categories to stand out, being important factors to consider in addition to the valuation premium due to the label, an ordinary object of studies (Bureau & Valceschini, 2003; Chilla et al., 2020; Crespi & Marette, 2003; Deselnicu et al., 2013). The distribution of product categories demonstrates the strength of the EU's IP protection quality scheme and the strength of the federalism of the EU's institutions (Fligstein, 2008a). However, the research showed that most GI registers in Mercosur and the EU are not reflected by the actual market, specifically in electronic supermarkets. Moreover, such performance shows that IP rights protection does not guarantee market share, and there are possible dominant groups within the influential groups. However, such an assumption requires further studies.

The last aspect regards the number of existing registrations and the number found on the e-retail survey. Despite the significant difference between the proportions of both blocs, both severely lack absolute representation. The EU has only 20% GIs found, and Mercosur has only 11% from the existing ones. The vast majority of products not found over this survey need to be deeply investigated. If not e-retail, what kind of market is their arena of commerce? Much study has been done on wines (Addor & Grazioli, 2002;

Agostino & Trivieri, 2014; Meloni & Swinnen, 2018; Teuber, 2011) and other more consolidated agrifood markets (Dentoni et al., 2012; Hughes, 2006; Lamarque & Lambin, 2015; Roselli et al., 2018). Nevertheless, research on less famous products can bring light to the functioning of this market.

Further investigation is required on the current economic activity of GI registrations that did not appear in the survey. The variety of unrepresented products needs further investigation. The reasons for this could rely either on the failure of the value chain of economic activity, on strictly regional commerce or on the lack of socio-political performance to guarantee similar representation for other products in the same categories. Again, the stratification of these categories and the concentration of categories sustain Swinnen's (2016; 2007) argument that the embeddedness of social organizations and state institutions develop arrangements that favor particular groups. The underrepresentation of such GI products enlightens the market on the matter of the results of embeddedness between groups of producers, commerce arenas and state institutions. Markets are social actions, as stated previously by Granovetter (1985), Abramovay (2004), and Allaire (2010), which require interventions by all involved parties in order to build and stabilize. The GI market is no different and this is reflected on e-commerce as demonstrated. Consequently, the EU has a more stabilized and solid market, despite a significant lack of registered GIs in the arena.

Therefore, considering the EU and Mercosur results, the market's configuration approached points for strategic analysis. The EU, despite having a broader range of categories with significantly more registered GIs as well as translation of these GIs into products, there is a clear focus on goods such as cheese, meat products, oils and FVCs. On the other hand, Mercosur has only a few categories represented, not only in products available via e-retail but also on registrations (Fracarolli, 2021). The divergent focus on strategy between countries is reflected in a market that cannot develop its full potential. It indicates that the focus on some products may incentivize others to seek GI protection. The focus on categories of products can improve commerce and benefit others. This slow snowball effect can boost commerce relations and serve as a bargaining chip subject to include other matters, also requiring further investigation.

Nevertheless, the intensifying of trade can benefit "decommodified" networks of producers by cooperation. Such detachment of products allows the institutionalization of commerce to operate in an embedded way through the state, which can now bargain for differentiated economic treatment. In this case, the Mercosur–EU agreement in the final

stage involving GI products could benefit the market, although, some interest groups with higher tier state relations may operate to set asymmetric standards for privileged actors (Swinnen, 2010, 2016).

4.6. Conclusions

This work aimed to compare Mercosur and the European Union in terms of the performance of GI products and categories in this market exchange arena by analyzing e-retail supermarkets. To do such work, the investigation surveyed 44 e-retail supermarkets in 11 countries, seven of which were from the EU and four from Mercosur, in order to compare the GI market of both economic blocs in terms of product offerings, variety of products and effectiveness of registration. It consisted of a five-part analysis, according to Scheme 1. First, the research consisted of agrifood products labeled as GI, excluding wines, aromatized wines and spirits, resulting in 2184 products from 44 online supermarkets from 11 countries. This search presented the selling of 314 different GIs. Second, after the survey, the work classified the products according to the eAmbrosia database. Finally, it analyzed the collected data according to three essential aspects of GI in retail markets: GI offerings, the origin of the goods and the geographical influences from each bloc.

The survey of these websites revealed an expected difference between the two blocs. The differences are revelatory. The EU has a much more active GI market, well represented from within in terms of both products and GIs, and focused on specific goods categories, while Mercosur has a significantly less developed market shown on e-retail due to having fewer products and GIs in absolute and relative terms, a disadvantageous proportion of outside/inside products, and GI variety expressively for inner economy and production, along with a disordered strategy towards agrifood GI segments.

The global system leans toward expansionist capitalism, strengthening the mass production of agrifood goods by massification and standardization (Bonanno & Constance, 2001). However, it also results in a countermovement in search of different, more culturally relevant products. This phenomenon creates niche markets regulated by state or suprastate institutions in the case of GI products. These regulations are embedded between the state and interest groups of niche producers. Nevertheless, they can be beneficial for intensifying the trade in value-added products and supporting the primary sector on a broad spectrum, particularly smallholder agrifood farmers.

The evidence presented in this paper supports the premise initially stated that the EU and Mercosur have a significant market difference regarding the e-retail of GI products. The differences concern quantity, variety and representativity. Such differences find pathways by strengthening strategic sorts of goods that lead institutional mechanisms towards economic benefits. Despite the risk of agendas and equity treatments being hijacked by interest groups, state actions on economic and development policies can be beneficial to smallholder farmers and culture-related agrifood producers by institutionalizing the differentiation of these products. The difference in the category of products capable of pushing forward others still requires further investigation. However, a consistent strategy for the improvement of the economic bloc points to developing the whole protected system and products. The strengthening of the system can also serve as a positive commercial-driven strategy for the primary sector of the economy. Moreover, it can promote steps towards a culturally embedded with broader democratic spectrum in the agrifood sector. Likewise, by fostering such a niche economy, there can be a positive impact on other sectors such as tourism.

Additionally, the present work revealed three major issues regarding the present market. The first one relates to the number of products. The number of GI products that appeared on the survey on e-commerce in EU markets is significantly greater than in Mercosur. This is mainly due to the strength of the institutional arrangements of each bloc. Thus, the presence of GI products shows an apparent asymmetry of inner-bloc GI performance. The second aspect regards the products' categories; here too the EU has a broader representation than Mercosur. However, even in this scenario, only a few categories were represented in e-retail in both economic blocs. This also denotes the cruciality of political institutions and their relations with the producers of such categories. The last aspect concerns the absence and underrepresentation of most GI products in e-retail major supermarkets of both blocs. This discovery, despite being relevant to scientific enlightenment, needs further investigations to clarify its causes. Furthermore, the reasons rely either on the failure of the value chain of economic activity, on strictly regional commerce, or lack of socio-political performance. Overall, the creation of the GI label does not guarantee that a new field, as in Fligstein and McAdam's (2012) concept, prevails and finds favorable conditions in a niche market.

Finally, the present work brings novelty into the e-retail market of GI products in the EU and Mercosur. The mentioned findings present the importance of the socio-political construction of this market. It also points to the importance of market-oriented

normativity for the development of GI products and their culturally embedded aspects. Such properly planned construction can promote the development of agrifood products.

4.7. References

Abramovay, R. (2004). Entre Deus e o diabo: Mercados e interação humana nas ciências sociais. *Tempo Social*, *16*, 35–64.

Addor, F., & Grazioli, A. (2002). Geographical indications beyond wines and spirits: A roadmap for a better protection for geographical indications in the WTO/TRIPS agreement. *J. World Intell. Prop.*, *5*, 865.

Agostino, M., & Trivieri, F. (2014). Geographical indication and wine exports. An empirical investigation considering the major European producers. *Food Policy*, *46*, 22–36.

Allaire, G. (2010). Applying economic sociology to understand the meaning of "Quality" in food markets: Applying economic sociology to understand the meaning of "Quality" in food markets. *Agricultural Economics*, *41*, 167–180. https://doi.org/10.1111/j.1574-0862.2010.00498.x

Belletti, G., Marescotti, A., & Touzard, J.-M. (2017). Geographical indications, public goods, and sustainable development: The roles of actors' strategies and public policies. *World Development*, *98*, 45–57.

Bonanno, A., & Constance, D. H. (2001). Globalization, Fordism, and Post-Fordism in agriculture and food: A critical review of the literature. *Culture & Agriculture*, *23*(2), 1–18.

Bureau, J.-C., & Valceschini, E. (2003). European food-labeling policy: Successes and limitations. *Journal of Food Distribution Research*, *34*(856-2016–57155), 70–76.

Chilla, T., Fink, B., Balling, R., Reitmeier, S., & Schober, K. (2020). The EU Food Label 'Protected Geographical Indication': Economic Implications and Their Spatial Dimension. *Sustainability*, *12*(14). https://doi.org/10.3390/su12145503

Crespi, J. M., & Marette, S. (2003). Some economic implications of public labeling. *Journal of Food Distribution Research*, *34*(856-2016–57144), 83–94.

Dentoni, D., Menozzi, D., & Capelli, M. G. (2012). Group heterogeneity and cooperation on the geographical indication regulation: The case of the "Prosciutto di Parma" Consortium. *Food Policy*, *37*(3), 207–216.

Deselnicu, O. C., Costanigro, M., Souza-Monteiro, D. M., & McFadden, D. T. (2013). A meta-analysis of geographical indication food valuation studies: What drives

the premium for origin-based labels? *Journal of Agricultural and Resource Economics*, 204–219.

European Commission. (2020, November 26). *EAmbrosia*. EAmbrosia. https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/

Fligstein, N. (1996). Markets as Politics: A Political-Cultural Approach to Market Institutions. *American Sociological Review*, *61*(4), 656. https://doi.org/10.2307/2096398

Fligstein, N. (2001). Social skill and the theory of fields. *Sociological Theory*, *19*(2), 105–125.

Fligstein, N. (2002). *The architecture of markets: An economic sociology of twenty-first-century capitalist societies*. Princeton University Press.

Fligstein, N. (2008a). *Euroclash: The EU, European identity, and the future of Europe*. Oxford University Press on Demand.

Fligstein, N. (2008b). Markets as Politics: A Political-Cultural Approach to Market Institutions. In *Readings in Economic Sociology* (pp. 197–218). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470755679.ch11

Fligstein, N., & Calder, R. (2015). Architecture of Markets. In *Emerging Trends in the Social and Behavioral Sciences* (pp. 1–14). American Cancer Society. https://doi.org/10.1002/9781118900772.etrds0014

Fligstein, N., & McAdam, D. (2012). *A theory of fields*. Oxford University Press.

Fracarolli, G. S. (2021). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063476

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, *91*(3), 481–510. https://doi.org/10.1086/228311

Hinrichs, C. C. (2000). Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303. https://doi.org/10.1016/S0743-0167(99)00063-7

Hughes, J. (2006). Champagne, feta, and bourbon: The spirited debate about geographical indications. *Hastings LJ*, *58*, 299.

Huysmans, M. (2020). Exporting protection: EU trade agreements, geographical indications, and gastronationalism. *Review of International Political Economy*, 1–28. https://doi.org/10.1080/09692290.2020.1844272

Huysmans, M., & Swinnen, J. (2019). No Terroir in the Cold? A Note on the Geography of Geographical Indications. *Journal of Agricultural Economics*, *70*(2), 550–559. https://doi.org/10.1111/1477-9552.12328

INPI. (2020, November 26). *Pedidos de Indicação Geográfica no Brasil*. Instituto Nacional da Propriedade Industrial. https://www.gov.br/inpi/pt-br/servicos/indicacoes-geograficas/pedidos-de-indicacao-geografica-no-brasil

Josling, T. (2006). The war on terroir: Geographical indications as a transatlantic trade conflict. *Journal of Agricultural Economics*, *57*(3), 337–363.

Lamarque, P., & Lambin, E. F. (2015). The effectiveness of marked-based instruments to foster the conservation of extensive land use: The case of Geographical Indications in the French Alps. *Land Use Policy*, *42*, 706–717. https://doi.org/10.1016/j.landusepol.2014.10.009

Mahoney, J. (2007). Qualitative Methodology and Comparative Politics. *Comparative Political Studies*, *40*(2), 122–144. https://doi.org/10.1177/0010414006296345

McMichael, P. (1996). Globalization: Myths and Realities. *Rural Sociology*, *61*(1), 25–55. https://doi.org/10.1111/j.1549-0831.1996.tb00609.x

Meloni, G., & Swinnen, J. (2018). Trade and terroir. The political economy of the world's first geographical indications. *Food Policy*, *81*, 1–20. https://doi.org/10.1016/j.foodpol.2018.10.003

Ministerio de Agricultura, Ganadería y Pesca. (2020, September 9). *Dirección Nacional de Alimentos y Bebidas—Indicación geográfica y denominación de origen*. http://www.alimentosargentinos.gob.ar/HomeAlimentos/IGeo/productos_reconocidos.php

Prosur Proyecta. (2020, November 26). *Secreto Industrial*. Prosur Proyecta - Uruguay. https://www.prosurproyecta.org/uruguay/categoria-explorador/secreto-industrial/

Ragin, C. C. (2014). *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Univ of California Press.

Roselli, L., Giannoccaro, G., Carlucci, D., & De Gennaro, B. (2018). EU quality labels in the Italian olive oil market: How much overlap is there between geographical indication and organic production? *Journal of Food Products Marketing*, *24*(6), 784–801.

Sartori, G. (1991). Comparing and Miscomparing. *Journal of Theoretical Politics*, *3*(3), 243–257. https://doi.org/10.1177/0951692891003003001

Smelser, N. J. (1967). Notes on the methodology of comparative analysis of economic activity. *Social Science Information*, *6*(2–3), 7–21. https://doi.org/10.1177/053901846700600201

Smelser, N. J. (2003). On Comparative Analysis, Interdisciplinarity and Internationalization in Sociology. *International Sociology*, *18*(4), 643–657. https://doi.org/10.1177/0268580903184001

Swinnen, J. F. (2007). *Global supply chains, standards and the poor: How the globalization of food systems and standards affects rural development and poverty*. Cabi.

Swinnen, J. F. (2010). The political economy of agricultural and food policies: Recent contributions, new insights, and areas for further research. *Applied Economic Perspectives and Policy*, *32*(1), 33–58.

Swinnen, J. F. (2016). Economics and politics of food standards, trade, and development. *Agricultural Economics*, *47*(S1), 7–19. https://doi.org/10.1111/agec.12316

Teuber, R. (2011). Consumers' and producers' expectations towards geographical indications. *British Food Journal*.

5. Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves

Abstract: Economics has been trying to understand market functioning for a long time. However, the neoclassical approach does not satisfy the understanding of the mechanisms that operate in the construction, stabilization, and transformation of markets. For this reason, economic sociology proposes to provide subsidies from causal pluralism, rejecting explanatory theories of purely rational choices. Therefore, the use of sociological theories in the understanding of agri-food markets is also necessary. In this sense, this work aimed to compare the market for agri-food products with a geographical indication (GI) between the European Union (EU) and Mercosur, based on the performance of brands and supermarkets in both regions. For this, we used a data survey of thousands of products and respective GI registrations in the most prominent online markets of countries in both regions. We applied analyses that differentiated the economic blocs and used field theory to explain the phenomena found in the findings. The results indicated the formation of relevant bands in the GI market, a little voluminous, but capable of crossing borders, a second, with the majority of GIs found that are only commercialized locally, and a third invisible, where most products are located, which do not exist in these markets. Furthermore, supermarkets' own brands have great relevance and are decisive in building the market.

Keywords: geographical indication; field theory; market construction; e-retail; agri-food market; economic sociology

5.1. Introduction

Markets have been studied more deeply since the 18th century. The agri-food market is one of the firsts. To better understand the construction and the rules of the market, many economists, sociologists, and social scientists have worked on theories and observations of empirical facts. Say theorized the law of markets, which addressed the creation of demand through the production of goods and value creation as a defense of the laissez-faire idea for the capitalist economy (Say, 2017). Since then, the study of markets has taken new and different directions. Despite the relevant contributions on market functioning, the rules of exchange and the general parameters of supply and demand of neoclassical economics, this paper focuses on the economic sociology approach to bring new information and analysis on the market imperfections that break these rules.

Agri-food markets have different functioning mechanisms depending on the type of agricultural systems (Fracarolli, 2021a). One niche of this market regards products with a specific geographical origin, qualities, or a reputation that are due to that origin. These products are protected by intellectual properties and are called Geographical Indication (GI) products (World Intellectual Property Organization, 2021). These products are not only a differentiation tool for market purposes, but also a proposition to decommodify it (Galtier et al., 2008; Hinrichs, 2000). Barham points to these products' natural, human, and historical factors as key to differentiation (Barham, 2003). Allaire (2018, p. 63) refers to these factors as "the immaterialization of food and the institutionalization of quality," based on Goodman's work (Goodman, 2002).

Although GI is a type of intellectual property (IP) protected worldwide by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), the rules of economic blocs and countries on its details and institutional mechanisms vary significantly (Fracarolli, 2021c). Few studies have deepened the matter on the effects of these differences between the Mercosur and the (EU) (Fracarolli, 2021b), two major economic blocs with global economic impacts. Due to the presented gap regarding the arena and these two economic blocs, this work aimed to compare both regarding the brands in play in this niche market.

Although the most comprehensive agreement mentioned above took place in 1994, the development of protection systems and their respective markets took place in a globally heterogeneous manner. Therefore, the subject has gained scientific attention in recent years. However, it has been concentrated in Europe, where this market is more prominent. However, the reasons for this market to have developed in different ways, producing such different results still need to be understood. The formation of an economic bloc should facilitate economic relations among its members, and promote an alignment of ideas and goals for the development of its members. However, while the European Union has developed its own system for the recognition, protection, and promotion of these products, Mercosur, for example, does not have a unified system, depending on the isolated work of each of its members (Fracarolli, 2021c). Despite this fact, this is only one explanation aspect to approach the differences between the markets. Another potential influence on the development of these markets is the performance of private firms. Therefore, this work aimed to investigate the difference in the relationships between brands found in supermarkets in countries of both blocs, Mercosur and EU, and

the development of the market for agri-food products with GI through the variety of products and brands in the existing universe.

The resourcefulness of the European market in this market niche is notorious, even serving as a model for other countries. However, which reasons and factors explain the differentiated performance in the European market? The difference in the numbers demonstrates a more significant capacity concerning other blocs to materialize food culture. Nonetheless, does this expressive number of records also emerge in exchange arenas such as supermarkets? Moreover, do economic blocs influence the market for these products from a business point of view? The South American region in question has a great diversity of agri-food and cultural products. Therefore, studies that seek to understand the differences between the markets of different economic blocs beyond the normative ones are necessary.

Mercosur and the European Union are two economic blocs of global importance. Both were created with the purpose of promoting regional development policies for their members according to local characteristics and cultures through the improvement of extra-national governance. The EU presents a unified system for the bloc, while Mercosur does not. Their divergent performances in the agri-food products market partly reflect this normative difference. However, it is not a sufficient explanatory condition. Therefore, the investigation between these two blocs needs greater attention from the point of view of other actors involved in this market. In the present work, this refers to the firms.

The influence of institutions on markets has been vastly documented (Acemoglu & Johnson, 2005; Fligstein, 1996; Hodgson, 1988; North, 1991), even on agri-food markets (Allaire, 2009; Allaire & Wolf, 2004; Fracarolli, 2021c). However, there is more to find out and deepen the understanding of its functioning. Many works approach this market regarding producers (Agostino & Trivieri, 2014; de Mattos Fagundes et al., 2012; Dentoni et al., 2012; Teuber, 2011), development (Barjolle et al., 2009; Ilbery et al., 2001; Roselli et al., 2018), or consumer issues (Aprile et al., 2012; Bonnet & Simioni, 2001; Loureiro & McCluskey, 2000; Menapace et al., 2011). Moreover, there is also a need to approach this market from the arena's perspective. Little work has been done on the matter, especially in a comparative perspective of economic blocs. For this reason, this work regards the arena of exchange on the market of GI agri-food products.

Therefore, the objective of this work was to compare the e-retail market of GI agri-food products between Mercosur and the EU regarding the brands. To answer this question, this work used institutional approaches from sociological tools such as

economic sociology provided by theories of Fligstein (1993, 1996, 2001, 2002, 2008), Fligstein and Dauter (2007), and Allaire (Allaire, 2009, 2010; Allaire & Wolf, 2004; Dervillé & Allaire, 2014). The institutional perspective has been growing on economic approaches. However, since the formation of the classical and neoclassical schools, several economic questions have remained unanswered due to the limits of their explanatory capacity. This gap allowed new authors to propose theories of a sociological nature through the lens of social construction to investigate markets. Since the formation of the classical and neoclassical schools, several economic questions have remained unanswered due to the limits of their explanatory capacity. Since then, authors such as North have proposed including institutions as a structuring part of economic and social development (North, 1991). More recently, authors like Acemoğlu (Acemoglu et al., 2001, 2005; Acemoglu & Johnson, 2005; Acemoğlu & Robinson, 2016), Fligstein (Fligstein, 1996, 1997, 2001, 2002; Fligstein & Dauter, 2007), and Powell and DiMaggio (2012) have introduced new elements and enriched the debate about the involvement of institutions in the construction of markets.

To answer the present question, this work proposes to look at the brands on e-commerce of retailing supermarkets from both the EU and Mercosur's countries quantitatively. The supermarkets surveyed are from Portugal, Spain, France, Italy, Greece, Germany, and Poland on the EU side and Brazil, Argentina, Paraguay, and Uruguay on Mercosur's side. To analyze and properly compare both economic blocs, this work used an institutional perspective from the economic sociology approach to investigate the influence of brands on this market. The support will be provided from the collected data among the supermarkets from the countries mentioned above.

The present compared analysis hopes to collaborate to the market investigation of GI agri-food products and go further and reveal issues of market functioning. In addition, economic sociology will provide tools to understand the embeddedness of institutions and companies on GI agri-food towards market control.

Firstly, the work presents the major issues on the GI market, its origins, and production logic. Then, in the same section, it brings the state of the art of economic, sociological approaches, oriented by an institutional perspective, as well as the main theories, to sustain the future analysis. Finally, it ends the section by presenting the present situation of both economic blocs.

Then, the methodology is presented to build the parameters of data collection from e-retail supermarkets towards product characterization, brand specification, and visual tools in order to analyze and compare the GI markets on both blocs properly.

Afterward, we display the results expressed in the methodology section, containing the numbers found and graphical data. Then, we discuss the results according to the theoretical tools provided and their market implications, developing explanations to the differences and proposition to stakeholders. Finally, we summarize the findings and developments of the work and suggestions for future works, as well as commercial and public policies regarding geographical indication agri-food products.

The present study, by approaching the relationship of products and brands most present in online supermarkets in both regions, aims to contribute to the understanding of the operating mechanisms in this market niche. With this, elements are added to understand the behavior of private organizations in the construction of this market. Thus, this investigation presents new possible paths that still need to be further developed in specific fields in food sectors or other marketing channels.

5.2. Agri-Food GI Market

The globalization process pushed agri-food production towards massification and standardization of goods (Bonanno & Constance, 2001; Fracarolli, 2021a; Kenney et al., 1989). This process originates from the development of an intensification process of standardized products and the assembly line, defined as neo-Fordist (Campbell, 1990; Gahan, 1993; Wilson & Ewer, 1996). This transformation of capitalist world logic is based on homogenous production and consumption from low complexity production systems. However, as a countermovement of such a process, initiatives towards attribution of quality and meaning seek cultural-related agri-food products (Barham, 2003). GI products can answer this demand since localized agri-food systems bring valuable assets to this market (Barham & Sylvander, 2011; Fernández-Zarza et al., 2021).

Nevertheless, it is well-known that GI products also function as a significant marketing tool (Acemoglu & Johnson, 2005; Fligstein, 1996; Fracarolli, 2021b; Hodgson, 1988; North, 1991) and pay bonus prices (Cei et al., 2018; Deselnicu et al., 2013). Furthermore, it is necessary to look at this market from the retailers' and sellers' perspectives. However, there still lacks researches on this matter in recent literature. Moreover, most of these works regard only single or few products (Addor & Grazioli,

2002; Agostino & Trivieri, 2014; Dias & Mendes, 2018; Renard, 1999; Roselli et al., 2018; Teuber, 2010). Considering such a gap, this work focuses on studying GI products sold in retail supermarkets through e-commerce.

The agri-food sector addressed in this paper, despite being the result of historical constructions of products, has in e-retail a possible new path for marketing and expansion of the market. In the online field, there is still a lot to be studied and it shows up as ample room for advances. In this sense, studies show that the online marketing capacity of productive groups in their own channels still operates in a suboptimal capacity and is significantly heterogeneous (Cristobal-Fransi et al., 2020; Jorge-Vázquez et al., 2021). On the other hand, the price paid for these products is higher (Aprile et al., 2012; Carlucci et al., 2014; Chilla et al., 2020; Lin, 2021). However, the sales channels are still diffuse and there are few studies dedicated to the marketing of these products on online platforms.

The agrarian system developed in each region is significantly due to its formation. Such structure impacts the development of the GI niche. The significant difference can be seen in the numbers of registers on both blocs, which also reflects on academic work. Many of them focus on the European context due to its pioneers' system or the number of products. Nevertheless, few works approach the South American market and even less in a comparative manner, which justifies attention. The dimensional and populational differences between the European Union (EU) and the Southern Common Market (Mercosur) are abundantly clear. However, there is still much to investigate between the GI market differences between them. Despite the bloc difference, there are also differences intra-bloc (Dias & Mendes, 2018; Fracarolli, 2021c). Dias and Mendes, for example, show that most published papers regarding GI are about Mediterranean countries and are primarily empirical (Dias & Mendes, 2018). Thus, there is also a lack of a comparative approach to this niche market in different contexts and its effects and causes.

Since Adam Smith's (1994) and Say's (2017) works on economics and markets, much has been studied on market comprehension. Despite the numerous differences in assumptions and theoretical lines developed by researchers, the knowledge of economics has grown significantly. Early in history, the field of economics was dominated by an understanding that markets should be as free as possible with little or no interference by the state, sustained on liberal ideas. Such approach, developed over time, became dominant and is called classical, neoclassical, or even orthodox. However, other ideas gained life across the last century.

Nonetheless, at the beginning of the studies of economic phenomena, authors such as Weber, Durkheim, and Simmel used socially constructed methods to improve comprehension of such events. Thus, they founded the intersection between economics and sociology. These authors observed that institutions and other economic structures play some roles over economic issues. Furthermore, their work noticed that such phenomena are socially constructed through their relations with religion, social relations, state and other factors. However, the field of economic sociology remained dormant for years as an active academic area until recent events.

Despite the use of the term "embeddedness" firstly used by Polanyi (2001), it was Granovetter who developed its characterization. For Polanyi, economy and social relations cannot be dissociated. However, there must be an appropriate discussion on the embeddedness of both in market economies, characterizing his substantivist argumentation (Polanyi, 2001). In 1985, Granovetter wrote "Economic Action and Social Structure: The Problem of Embeddedness" (Granovetter, 1985), brought new life to the study of economic phenomena trying to fill the empty space left by orthodox economics. Among authors, Swedberg, White, Zelizer, MacKenzie, Beckert, and others led the analysis of economic matters towards new perspectives. This movement started to be called New Economic Sociology (NES). The NES "involves a body of study and research aimed at establishing the links between economic and social phenomena," as summarized by Trigilia (2008, p. 1).

Nevertheless, even the NES has its various approaches. The most common categorization of lines is that previously presented by Fligstein and Dauter (2007) and Fourcade (2007), three major theoretical paths to better comprehend the functioning of markets. These are networks (Burt, 2021; Granovetter, 1985, 2005; White, 1981, 2018), performativity (Beunza & Stark, 2004; Callon, 1998, 2020; MacKenzie, 2008; MacKenzie & Millo, 2003) and institutions (Dobbin, 1994; Fligstein, 1996, 1997, 2002; Powell & DiMaggio, 2012). Due to the embedded relations of the state on the construction and regulation of the market regarding IP-protected products, the present work betakes the institutionalist via.

Institutional economics focuses on the relationship between customs, state, and norms, formal or informal, among people or groups as market makers. Despite the differences between authors regarding the most appropriate definition, they all assume that markets and the economy result from complex interactions between participating actors, conditioned by the specific circumstances of each one. Such an interpretation of

the functioning and origins of economic phenomena places it as heterodox in this field by opposing to neoclassical economics approach.

The core of this theoretical line lay in learning, bounded rationality, and evolution. However, due to the theoretical progress of neoclassical economics, the NES also progressed and began to consider organizations, information, property rights, and transaction costs (Fligstein, 1997, 2002; Powell & DiMaggio, 2012) in the form of neo-institutionalism.

Since North developed an institutional theory toward economics by rejecting economic agents' pure rationality, much work has been done. The author first relied on the relevance of institutions on markets by defining constraint as a set of formal and informal rules in order to promote a stable environment on the market and society (North, 1991). Then, he developed a theory on how institutions operate towards reducing asymmetry to reduce transactions costs (North, 1992). His work brought new perspectives on market functioning due to multicausal factors and institutional relevance, despite his attachment to neoclassical thought.

After him, the NES was probably the field of research that has put major efforts into the involvement between institutions and the market. Authors such as Fligstein, Trigilia, and DiMaggio built theories on how these institutions affect markets. Block, for example, discussed the illusion of capitalist societies and economies by criticizing the common sense that markets are autonomous and self-regulated (Block, 2018). DiMaggio, on the other hand, focused more on organizations. In DiMaggio and Powell's work, the authors developed the argument related to the practices of organizations reaching for legitimacy in order to achieve trust and a tendency towards stability. Trigilia, on his side, built up a more conceptual formation of economic sociology and its sociological origins (Trigilia, 2008), although he also has worked on the analysis of local production systems development (Crouch et al., 2001) and, additionally to this work, is his theory on "'embedded autonomy' of political action," in which the author argues on the relativity of social capital and the interaction between it political institutions (Trigilia, 2001).

Another theoretical approached that gained relevance in market analysis and explanation is the field theory. It gained life with Bordieu's work based on an agency-structure framework. The functioning of these structures obeys a hierarchical basis resulted from the struggle of social actors subordinated by power and class relations towards dominant positions (Bourdieu, 1977, 1987). Bourdieu built his theory on the

habitus, understanding that the behavior of actors does not result from strictly rational decisions, but a set of their gut feelings and institutions (Bourdieu, 1977, 2000).

At last, Fligstein developed the concept of field theory based on the understanding that "most social actions occur in social arenas where actors know one another and take one another into account in their action" (Fligstein, 2015, p. 237). The author, along with McAdam, developed the theory on the premise that the world is made of constructed social orders in which incumbents and challengers compete to the dominance of the structure (Fligstein & McAdam, 2012, 2014). Fligstein argued on the existence of "meso-level" social orders. These orders are organized by individual and collective actors in hierarchical form and engage in disputes from towards dominance of a field. This struggle between incumbents and challengers leads to markets' creation, stabilization, and transformation (Fligstein & McAdam, 2014).

Finally, Fligstein also developed the concept of social skill as a trigger to induce cooperation in the theory of fields. By focusing on the construction of local orders, the author rejects both rational choice and pure sociological versions (Fligstein, 2001). Social skill, rooted in the symbolic interaction throughout the conceptions of Mead, Goffman, and Giddens, is based on the social process of assimilating the role of each actor according to their position in the field and how they behave in front of pre-existing rules. As a result, the behavior of the actors promotes its creation, stabilization, or transformation (Fligstein, 2001).

This paper develops under the neo-institutionalist frame to understand the difference of mechanics of Mercosur and the EU GI market. Or, in an adaptation of Fourcade, how do each embedded contexts of brands, supermarkets, and GI products operate to stabilize markets (Fourcade, 2007)? However, there is also a crucial component derived from the field theory. Nonetheless, the neo-institutionalist approach itself does not satisfy the full explanation of this aspect of the market. For that, field theory also will provide support.

5.3. Methodology

Considering that "markets are socially constructed arenas where repeated exchanges occur between buyers and sellers under a set of formal and informal rules governing relations among competitors, suppliers, and customers" Fligstein and Calder (Fligstein & Calder, 2015, p. 1), the data collected must be analyzed under these circumstances. Therefore, the present work collected data on all GI products on the markets and the

differences between both economic blocs. This work attempted to map the commerce of these products on retail supermarkets and hypermarkets through online shopping. To do such a survey on the market, on all supermarkets' websites, the address used to simulate was the city-center of the country's most populated city, if required. All GI agri-food products registered on the EU or Mercosur database were considered. Only agri-food products were collected and evaluated for this work; wines, spirits, and aromatized wines were not considered. The product categorization utilized was from the EU, as presented in Table 4.

Table 4. Product categorization.

Category	Description
1.1	Fresh meat
1.2	Meat products
1.3	Cheeses
1.4	Other products of animal origin
1.5	Oils and fats
1.6	Fruits, vegetables and cereals fresh or processed
1.7	Fresh fish, mollusks and crustaceans and derived
1.8	Others such as spices
2.1	Beers
2.2	Chocolate and derived
2.3	Bread, pastry, cakes and alike
2.4	Beverages from plant extracts
2.5	Pasta
2.6	Salt
2.7	Natural gums and resins
2.8	Mustard paste
2.9	Hay
2.10	Essential oils
2.11	Cork
2.12	Cochineal
2.13	Flowers and ornamental plants
2.14	Cotton

2.15	Wool
2.16	Wicker
2.17	Scutched flax
2.18	Leather
2.19	Fur
2.20	Feather

Source: Author. Own elaboration based on categorization provided by the EU (European Commission, 2020).

The first measure to be taken is to establish the parameters that allow the comparison performed in this work. The first and fundamental aspect is the comparison between economic blocs. Mercosur and the EU are institutions built and maintained by countries around the joint development of their member states, despite some differences in format. Both have agreements and rules regarding IP protection, and specifically in GI, with slight differences between the categories, as discussed by Fracarolli (Fracarolli, 2021c). However, for comparison purposes, some considerations should be kept. While Mercosur has five member states, one of which is currently suspended, and the EU has 27 member states. Consequently, we need a comparative adaptation. Furthermore, the number of agri-food products with GIs registered in the two blocs is significantly different (Fracarolli, 2021c). For these reasons, in order to ensure greater representation of both, it is reasonable to use a larger sample of EU countries to Mercosur. Therefore, it was possible to collect information from all active Mercosur members and a selection of seven countries was carefully picked from the EU, which account for more than 80% of the total number of registrations of GI products in the EU. Furthermore, for the results to become comparable, the figures must present numbers in relative terms and not in absolute terms so that there is no distortion.

Before searching the products sold in all countries, it was necessary to find the existing GIs. The universe of products and its classification and categorization used was the official listing of the EU and Mercosur's countries'. On the European side, this work examined the EU database at eAmbrosia (European Commission, 2020). Overseas, the considered data were from the available dataset from each authority from Argentina, Brazil, Paraguay, and Uruguay (INPI, 2020; Ministerio de Agricultura, Ganadería y Pesca, 2020; Prosur Proyecta, 2020). However, data from Paraguay and Uruguay still lack product registers, although Uruguay has GI wines. Since this work does not contemplate

wines, spirits, or aromatized wines, there were no products from Uruguay or Paraguay. The work considered the types of GIs according to the respective laws of each economic bloc or country since Mercosur and the EU have different mechanisms of protecting these IP products, as observed by Fracarolli (Fracarolli, 2021c) and presented in Table 5.

Table 5. Types of GIs.

Type	Description
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
TSG	Traditional Specialities Guaranteed
DO	Denominação de Origem (Designation of Origin)
IP	Indicação de Procedência (Indication of Source)
IG	Indicación Geográfica (Geographical Indication)

Source: Author.

The research contemplates four major grocery retail supermarkets from each country with an active and functional website for online shopping for data collection. Therefore, this work went through four supermarkets in each country of Mercosur, totalizing 16 supermarkets. In the EU, the investigation went through four supermarkets' websites in seven countries, totalizing 28 supermarkets. The criterion for the seven countries from the EU was the most relevant ones on this market. Thus, in Mercosur, all active members were considered and from the EU, representing over 80% of its GI registers, ensuring relevant representation. Furthermore, all products with a GI label registered in the respective country were considered for each supermarket. The collection of data was realized between 2 January and 28 February of 2021.

After the established research parameters, we accessed the website of the 28 supermarkets as discussed and registered all agri-food products with GI belonging to any database mentioned among all the products made available on the e-commerce platform of these retails.

5.4. Results

The results from the survey brought 289 different GIs on the EU's market and 25 different GIs on Mercosur's market, with 1784 and 388 different products, respectively. Additionally, the data in Supplementary Materials has information about the number of brands in each country.

The first notable aspect of the survey is the number of GI registers from within found face the number of existing GIs from within (Table 6). There is an underrepresentation of IP-protected products.

Table 6. GIs found versus existing GIs.

Economic Bloc	GIs Found	Existing GIs	Percentage
European Union	286	1414	20.23%
Mercosur	6	53	11.32%

Source: Author.

Table 6 shows a significant difference in the number of existent registered GIs and the ones found on the survey. The commerce through e-retail in major supermarkets has shown that most GI products do not belong to this channel. Only a small, however significant, portion of these products is sold to final customers this way.

5.4.1. European Union

Fracarolli's work demonstrated the difference in the legal structure between the EU and Mercosur and the institutional effects on the markets of each region (Fracarolli, 2021c). However, in addition to government involvement, there are also aspects that involve firms in this market.

Table 7 shows the number of brands that commercialize such products. It considers the brands by GI products, by category and the total amount. It is clear that only a few companies participate in this market through this way of commerce.

Table 7. The number of brands found in the EU.

Country	GI Category	Products Per Category	Total Products	Brands Per Category	Total Brands	Ratio Per Category	Total Ratio
France	1.1	6	462	3	83	2	5.57

	1.2	35		15		2.33	
	1.3	267		48		5.56	
	1.4	13		5		2.6	
	1.5	19		10		1.9	
	1.6	77		10		7.7	
	1.8	36		14		2.57	
	2.5	4		2		2	
	2.6	5		3		1.67	
Germany	1.2	46	174	12	43	3.83	4.05
	1.3	103		24		4.29	
	1.4	3		1		3	
	1.5	5		3		1.67	
	1.6	7		5		1.4	
	1.8	4		3		1.33	
	2.3	4		3		1.33	
	2.5	2		1		2	
Greece	1.2	3	283	2	87	1.5	3.25
	1.3	235		67		3.51	
	1.5	11		6		1.83	
	1.6	26		14		1.86	
	1.8	2		0		N/A [1]	
	2.3	4		3		1.33	
	2.7	2		0		N/A [1]	
Italy	1.1	1	330	0	65	N/A [1]	5.08
	1.2	67		22		3.05	
	1.3	130		18		7.22	
	1.4	1		0		N/A [1]	
	1.5	8		6		1.33	
	1.6	31		11		2.82	
	1.8	17		9		1.89	
	2.1	2		1		2	
	2.3	15		8		1.88	
	2.5	58		3		19.33	

Poland	1.2	21	208	10	61	2.1	3.41
	1.3	145		39		3.72	
	1.5	10		5		2	
	1.6	1		1		1	
	1.7	11		1		11	
	1.8	20		8		2.5	
Portugal	1.1	5	199	2	56	2.5	3.55
	1.2	27		14		1.93	
	1.3	94		29		3.24	
	1.4	2		2		1	
	1.5	38		12		3.17	
	1.6	23		3		7.67	
	1.8	10		4		2.5	
Spain	1.1	51	128	6	32	8.5	4
	1.2	16		10		1.6	
	1.3	31		16		1.94	
	1.5	1		1		1	
	1.6	18		8		2.25	
	1.8	7		3		2.33	
	2.3	4		2		2	

[1] Not Available. Source: Author.

The presented table shows the number of products and brands found on the EU's e-retail markets survey. It shows that the number of products varies significantly between the bloc countries and the number of brands. The overall ratio among EU countries is between 3.25 and 5.57 products per brand. France and Italy are the most concentrated markets. On the other side, Greece and Poland are the least concentrated.

Additionally, the cheese category has the most products in all countries, except in Spain, where meat products prevail. On isolated categories, the most concentrated are the pasta in Italy, fresh fish, mollusks, and crustaceans and derived in Poland, and fresh meat in Spain. On the other hand, the less concentrated with more than one product are other animal products from Portugal and Italy, and other products such as spices and bread, pastry, cakes, and alike from Germany and Greece. Finally, only 13 categories out of 28 appeared on the survey.

Another aspect of the market is the ratio of GI registers related to the number of brands found in the survey in each country. Figure 9 shows that most GIs do not appear in the market in many brands. Additionally, no country had more than 29% of GIs with four or more brands in its supermarkets in all surveyed countries. In this case, France was the one with the most relative variety of brands in GIs. On the other hand, Spain had 80% of the GIs found under only one brand or no brand.

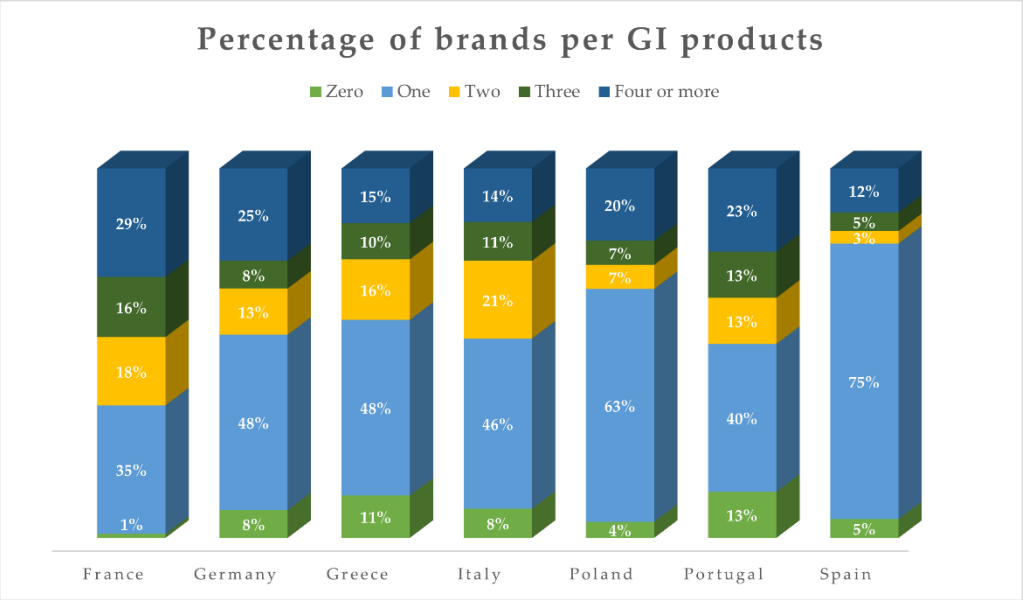


Figure 9. Percentage of brands per GI products in each country of EU. Own elaboration.

The data presented in Figure 9 demonstrate that most products with GI have very few players in all countries surveyed. The data presented in Figure 9 demonstrate that most products with GI have very few players in all countries surveyed. There are at least 36% of GIs with no or only one brand in all of them. France is the country with the lowest percentage. Likewise, it was also the country with the highest percentage of GIs with four or more brands on virtual shelves. The most prominent case is Spain, where 80% of the GIs found even have a brand. At the same time, it also proved to be the country with the lowest percentage of GIs represented by four or more brands.

Finally, in Figure 10, it is possible to observe the result of the research regarding the number of GIs where at least one of the supermarkets sampled has its own brand in the commercialization of agri-food products protected with this type of IP.

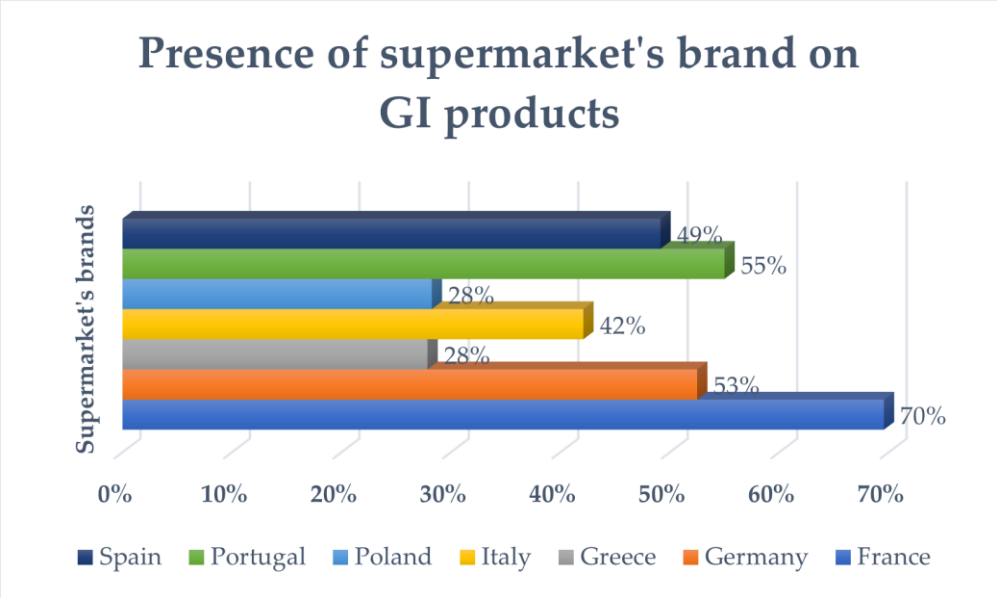


Figure 10. Presence of supermarket brands on GI agri-food products. Own elaboration.

Figure 10 above shows the result, in each EU sampled country, of the corresponding percentage of GIs with at least one private label among the supermarkets observed. The results point to a massive presence of these brands in the market in question. The lower highlights are due to Poland and Greece, where 28% of GIs have at least one brand of their own in the markets observed. At the other end, France stands out, where 70% of the GIs found have their own brands in the supermarkets sampled.

5.4.2. Mercosur

Beyond formal institutional and governmental influence, markets operate under informal rules that may vary in each region. In the following subsection, we present the results found on the South American e-retail supermarkets survey according to previously specified.

Table 8 shows the number of brands that commercialize such products. It considers the brands by GI products, by category and the total amount. It is clear that only a few companies participate in this market through this way of commerce.

Table 8. The number of brands found on Mercosur.

Country	GI Category	Products per Category	Total Products	Brands per Category	Total Brands	Ratio per Category	Total Ratio
Argentina	1.2	22	180	5	37	4.4	4.86

	1.3	10		7		1.43	
	1.8	148		25		5.92	
Brazil	1.2	16	60	7	23	2.29	2.61
	1.3	16		7		2.29	
	1.5	5		2		2.5	
	1.6	2		0		N/A [1]	
	1.8	21		7		3.0	
Paraguay	1.2	7	43	2	13	3.5	3.31
	1.3	13		6		2.17	
	1.8	23		5		4.6	
Uruguay	1.2	38	105	10	29	3.8	3.62
	1.3	43		12		3.58	
	1.8	24		7		3.43	

[1] Not Available. Source: Author. Own elaboration.

The presented table shows the number of products and brands found on the survey on Mercosur's e-retail markets. It shows that the number of products varies significantly between the bloc countries and the number of brands. The overall ratio among Mercosur's countries is between 2.61 and 4.86 products per brand. Argentina is the most concentrated market of this niche. On the other side, Brazil is the least concentrated.

Additionally, the 1.8 category (other such as spices) is the one with most products in all countries, except in Uruguay, where cheese prevails. On isolated categories, the most concentrated are the 1.8 category in Argentina, mainly due to mate. On the other hand, the cheese category is less concentrated with more than one product, also from Argentina. Finally, only five categories out of 28 appeared on the survey.

Another aspect of the market is the ratio of GI registers related to the number of brands found in the survey in each country. Figure 11 shows that most GIs do not appear in the market in many brands. Additionally, no Mercosur country had more than 18% of GIs with four or more brands in its supermarkets in all surveyed countries. In this case, Argentina was the one with the most relative variety of brands in GIs. On the other hand, Argentina also had 64% of the GIs found under only one brand or no brand at all, although very close to Brazil (62%) and Paraguay (63%). This fact demonstrates the relative uniformity of the bloc to brand concentration in Mercosur's market.

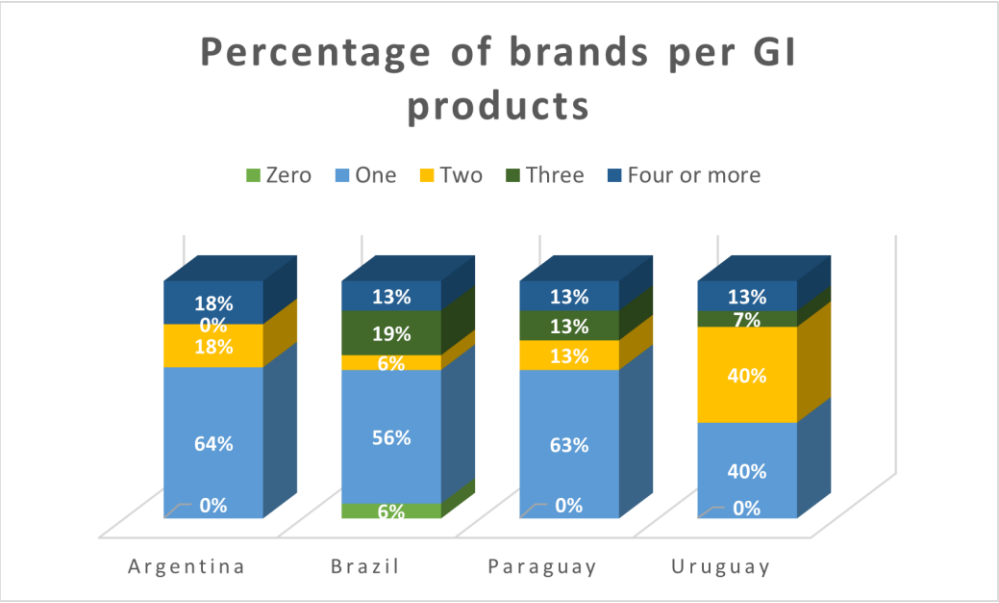


Figure 11. Percentage of brands per GI products in each country of Mercosur. Own elaboration.

The data presented in Figure 11 demonstrate that most products with GI have very few players in all countries surveyed. There are at least 40% of GIs with only one brand or none at all in all of them. Uruguay is the country with the lowest percentage. Likewise, Argentina had the highest percentage of GIs with four or more brands on virtual shelves (18%). At the same time, Uruguay, Paraguay, and Brazil tied on the percentage of GIs represented by four or more brands.

Finally, in Figure 12, it is possible to observe the result of the research regarding the number of GIs where at least one of the supermarkets sampled has its own brand in the commercialization of agri-food products protected with this type of IP.

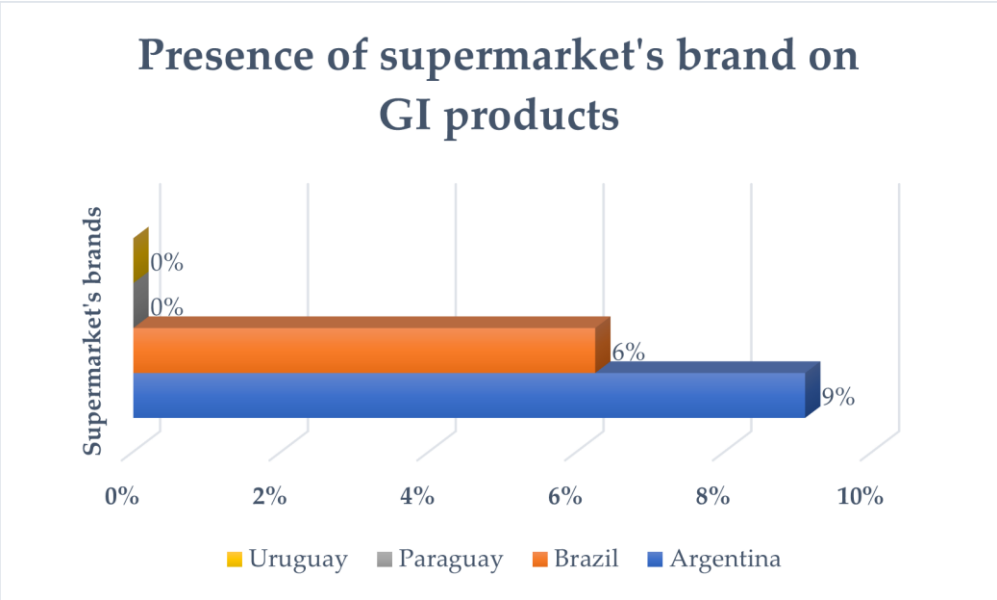


Figure 12. Presence of supermarket brands on GI agri-food products. Own elaboration.

Figure 12 above shows the result of the corresponding percentage of GIs with at least one private label among the supermarkets observed in each Mercosur sampled country. Again, the results point to a rare presence of these brands in the market in question. The lower highlights are due to Uruguay and Paraguay, where no GIs have a brand of their own in the markets observed. At the other end, Argentina stands out, where 9% of the GIs found have their own brands in the supermarkets sampled. Again, however, the demonstrated sample opposes that found in the EU.

5.5. Discussion

The following discussion is based on the results found from the samples performed as previously described. Since the sampling seeks to make the two blocs comparable, as they follow the same methodology, balanced by their proportionalities, the results express the existing reality and not sample weakness. Nevertheless, the glaring difference between the numbers found reinforces the need to understand the mechanisms that make the market for agri-food products with GI express such a difference.

The presented results bring new information about the market construction of GI agri-food products. The actors involved play a crucial role. The findings show that either in the EU or in Mercosur, the products found on the survey are from a restricted number of brands, which means that only major companies can penetrate the market. Each GI

indeed has its major players, although the number of brands per category and the number per GI allow us to infer that these companies are even more restricted and commercialize more than one product within the same category.

These results are in line with research carried out that point to the difficulty of productive groups to insert themselves in online marketing channels (Cristobal-Fransi et al., 2020; Jorge-Vázquez et al., 2021). Given the number of existing records, the potential of this market niche is clear, as well as the need to improve the flow and sale of goods.

Secondly, in both Mercosur and the EU, only a small percentage of the categories appear in the market (Fracarolli, 2021b). Nevertheless, among the categories of products found, some of them stand out. For example, category 1.3 (cheese) is the category with the highest number of brands (and products) in all countries surveyed. Although the proportion of products by brand varies between countries, the relevance of this type of product in this market is significant. Even across countries, there are slight differences in the global proportion of products by brands. From the perspective of economic blocs, Mercosur is slightly less concentrated. However, there are also fewer brands and fewer products.

The study of brands in this market remains poorly studied. However, a significant part of studies related to GIs focus on certain products such as olive oil (Carlucci et al., 2014; Menapace et al., 2011; Roselli et al., 2016, 2018) and wines (Addor & Grazioli, 2002; Agostino & Trivieri, 2014; Marlowe & Lee, 2018; Skuras & Vakrou, 2002) in European markets and coffee (Barjolle et al., 2017; Galtier et al., 2008; Quiñones-Ruiz et al., 2017; Renard, 1999; Teuber, 2010) in South American markets. Although wine is not part of this research, the others do not necessarily reflect the greater significance found in supermarket e-retail.

Thirdly, there is a clear difference in the number of products and the number of brands involved between Mercosur and the EU. The European market for agri-food products with GI has a more substantial presence in e-retail than in the South American market. There are a more significant number of companies involved in this market, although it is slightly more concentrated, due to the more significant number of products as well. In different ways, the role of the supermarkets' own brands in question is also relevant. The massive presence in European markets is notorious and almost non-existent in South American markets. Such presence denotes both the way supermarkets understand these products as strategic for the business and the effect caused by their entry, boosting and serving as a trigger for the products, like France, which has 70% of GIs with

at least one private label product in the markets for sale. Even Poland and Greece, which had the lowest percentages in European terms, are three times more significant than Argentina. This Mercosur country had the most prominent presence of supermarkets' own brands.

The low number of studies that look at the South American market has been previously evidenced, mainly in studies that deal with the market in a broad spectrum and not directed to specific products. However, some studies point to the preference between brands and GIs among producers as a differential factor (Boatto et al., 2011; Dentoni et al., 2012; Yue et al., 2013), while this does not necessarily need to be an option, but their combination, aligned with the productive segment and political configuration, may have more promising effects.

The results extracted from this research allow us to infer that few brands dominate this market both in Mercosur and in the EU. Moreover, in this market, where those who trade and place themselves simultaneously as an exchange arena and as one of the points, that of the seller, these products stand out and are made dynamic. Additionally, agri-food products with GI are restricted to a few categories, and a few GIs are represented.

Nevertheless, the demonstrated endogeneity of the market still suggests that it is not just a matter of valuing local products, but of a potential market protectionism, as previously discussed (Huysmans & Swinnen, 2019; Josling, 2006; Meloni & Swinnen, 2018; Swinnen, 2016), even though it needs to be further developed.

However, a few GIs manage to be marketed in countries outside their origin, but within the bloc. Even fewer products manage to be marketed outside the economic bloc. These players, despite being larger, constitute a very narrow product category, but with economic power and potentially influential in institutions. This group will be called the Upper Band. Thus, the actors in play closer or more embedded in the state have an advantage towards market control.

A significant part of the products sampled is only present in their countries of origin. The restriction, including intra-bloc, shows the low mobility and influence of local brands and supermarkets that sell these products. This fact configures the second level of products on the market that are restricted to local commerce, local brands, and have economic relevance. This group will be called the Intermediate Band.

Finally, a third and significant range of product categories are registered in their national and international systems, but do not appear in the markets, either because they no longer exist, or because they do not have brands capable of placing them in their

respective marketing arenas, such as supermarkets in urban centers, or because they are only marketed locally, through local exchange systems. This group will be called the Lower Band. All these bands designated above make up a market conformation system as set out in Figure 13.

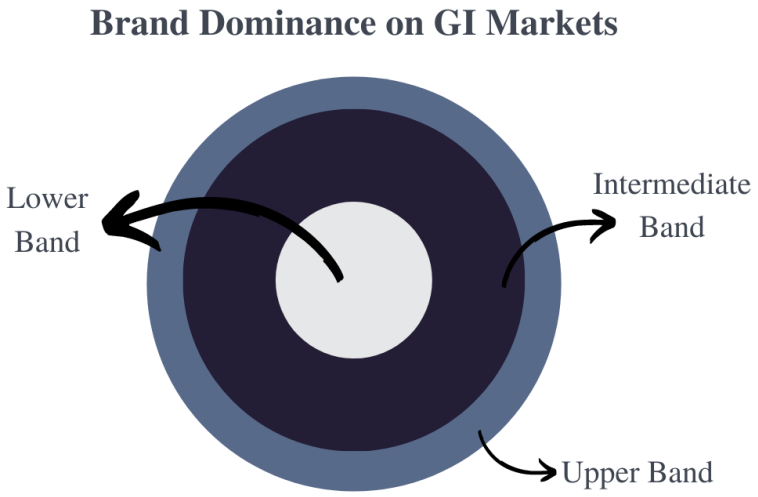


Figure 13. GI markets operating system for e-retail. Own elaboration.

As previously mentioned, the institutions provide the structure in which this market is built. The construction of this market, especially in this arena, places different categories of players in the dispute. As shown in Figure 13, the three distinct groups characterized by agri-food products compete for space in the respective market—different GIs postulate market dominance as theorized by Fligstein and McAdam (Fligstein & McAdam, 2012). However, in the present market, there are invisible actors who must be appropriately considered.

It is clear that the dispute between incumbents and challengers is settled and visible. However, other actors may be present trying to participate in the market, but they are not. Thus, considering that all GIs are registered in their respective systems, regardless of the country or economic bloc in which they are located, there is a detachment of the agri-food products niche. Thus, it configures the formation of this market due to their differentiation, through IP protection through GI, to the respective products.

Therefore, the protection afforded to the products and GIs found do justice to their existence and provide an existential nexus. These records provide the creation and

participation of a different market. However, according to Fracarolli (Fracarolli, 2021b), around 80% of GIs in the EU and 90% in Mercosur are not present in e-retail supermarkets. In this sense, it is understandable that producers seek to protect the fruit of labor, history, and their environments (Barham, 2003). A portion seeks registration as a form of protection for their intellectual property. Another portion sees registration as a marketing strategy, precisely to be able to participate in the market in question.

However, the significant portion of GIs that exist but are in a situation of invisibility raises the question of the very reason for their existence. These GIs neither protect these products nor serve as a marketing strategy, whether due to pressure from established GIs or inaccessibility to the market. In this sense, patrimonialization serves only as a productive or active whim for constructing regional identity but not as a market asset.

This same patrimonialization that materializes the local heritage is very useful to this product category (Gade, 2004). However, the expenditure of time and public resources in the registration of these products in order to grow the market brings a reflection on the need to build coordinated and strategic actions regarding the formation of policies for the development of these products capable of sharing economic, environmental, labor factors and cultural.

The phenomenon observed here refers to the massive number of GIs that exist and are not present in the markets. We will call the Mirage Principle those who seek protective registration due to a possible entry into the market and are unable to do so. Analogously, we will call the phenomenon that affects those who seek protection for a product that does not have the threat of usurpation of the region's reputation for the product as the Hollow Principle. All of these constitute invisible actors who, in some way, are present in the market as a socially constructed environment, but who are not perceived either by brands or by the exchange arenas.

Then, as Bordieu first developed (however applied to different contexts), the field GI product market is also ruled by fields (Bourdieu, 1987). It is a power field displayed by a set of products granted to supermarkets and major brands that end up struggling towards market dominance. This competition, however, leaves the actual products and productive effort on a secondary relevance.

Fligstein highlights the formation of social fields as a theoretical organizational proposal for forming markets (Fligstein, 2001). The proposal, as mentioned earlier, presents adequate and plausible explanations for this empirical study. Moreover, by situating the fields like construction and means of a dispute of firms, theory and practice

come closer, as shown in Figure 13. Likewise, the cooperation between actors in order to obtain gains in the present market, as is typical of the producers of this nature of products, without which there would be no formation of terroir, as a result of the previously discussed symbolic interactionism, and finally, how actors use the structures proposed by the State to build the market in question.

Among the proposals made by Fligstein in the article "Social Skill and the Theory of Fields" (Fligstein, 2001), some of them could be verified and applied in the present empirical work. Proposal 3 (p. 117), for example, "Skilled social actors incumbent groups in stable fields will use existing rules and resources to reproduce their power," demonstrates how the Upper Band GIs use the established rules of protection regulation to exercise power and dominate the market and defend their status quo, as proposed in 6 (p. 118). Such proposals are echoed in the findings of this research. The Upper Band as the incumbents and the Intermediate Band as challengers for the present market. The commercial success of the GI minority in the Upper Band works as a social skill that motivates others to cooperate in the same direction.

In addition to providing a theoretical framework for the market in question, Fligstein's proposals allow for discoveries about the functioning of markets. As discussed, although firms use the structural framework built by the State for market development (Allaire, 2010; Allaire & Wolf, 2004; Fracarolli, 2021c), the massive presence of invisible actors shows the degree of imperfection in the institutional performance of rule makers, even in different systems. Thus, in addition to the construction of regulation being decisive in the formation of markets of this nature, it is equally necessary that institutions act in a coordinated manner in order to make them more functional and inclusive.

Finally, this article fulfills its objective of comparing the Mercosur and EU economic blocs regarding the role of brands in constructing the market for agri-food products with geographical indication. To this end, it uses the organizational theory proposed by economic sociology. The findings of this study contribute to the development of explanations of the functioning of markets as a social construction and reject simplistic explanations arising from the actors' rational choices. Supported by neo-institutionalism, we find gaps in the State's role in making it more functional, despite the differences between regions. In this sense, further studies can advance the explanation and inclusion of invisible actors in this market. Likewise, more studies on consumer behavior towards these products can add value to academia and society.

5.6. Conclusions

This study sought to investigate the role of brands in the market for agri-food products with GI in Mercosur and the EU through data collected in e-retail supermarkets. To this end, it collected information on the products offered and their GIs in four markets of each active Mercosur member and four markets of the seven most significant countries in terms of EU GI registrations.

To properly understand the functioning of markets from the perspective of brands, we sought to use the theoretical basis of organizations and economic sociology. In this sense, we understand that the Theory of Fields, rooted in the propositions of Bourdieu and Fligstein, provides a solid basis for understanding the market in question. The theory proposes forming fields of influence in which the actors involved in constructing markets compete or cooperate in occupying market positions. Thus, as they occupy certain positions, they tend to be copied and challenged.

The findings in this investigation reveal the formation of fields of influence of brands and GIs on the market. This formation takes place in an Upper Band, where GIs that are in markets beyond the country of origin and even in other economic blocs are consolidated products made up of significant brands or used by supermarket brands. There is an Intermediate Band, made up of local products and marketed only locally and the majority appears in the markets. Moreover, there is also a Lower Band in which GIs do not show up in the markets and are most records. The latter is formed by invisible actors who either no longer exist, cannot enter markets, or exist only in a localized sphere. In this case, the IP registration through GI does not make sense from a commercial point of view, neither to protect immaterial goods nor as a marketing strategy, incurring in what we call the Mirage Principle or Hollow Principle. Therefore, in the search for the same success, the actors reproduce the search for GI as a strategy of the dominant actors (Giddens, 1984). However, most end up incurring in the Mirage Principle.

The participation of supermarkets regarding the use of private labels in agri-food products with GI was also evaluated. The results show that the participation of private labels is significantly more intense in the EU. This factor makes the market in this niche more dynamic and plays a crucial role in placing and providing visibility to some GIs. For example, in France, 70% of the GIs sold are also or only made by the markets' own brands. On the other hand, in Uruguay and Paraguay, supermarkets' own brands were not found in products with GI.

Likewise, although the State conceives the structure in which this market is constituted, some flaws are demonstrated by the number of invisible actors in it. By constituting the legal framework and IP parameters that differentiate and constitute a market niche, the State is an embedded part of this market, influencing and being influenced by the participating actors. Moreover, players use these structures to position themselves in the market and occupy positions of incumbents or challengers. Thus, we also add the invisible position. However, given the difference in results between the economic blocs, it is necessary to understand how the State acts on the formation, stabilization, and transformation of the market and the need for coordinated and strategic action in this regard. Even more research is needed to unveil triggers that can make this market more inclusive and functional.

However, despite advances in understanding the markets and the functioning of this niche, some issues still require advances. Significant contributions in expanding the coordinating and plural participation of organizations by the State proved to be necessary. However, there is still a need for further studies to delve into ways to do it. Likewise, some Mercosur and EU countries were addressed in this work. However, it is convenient that other countries and other economic blocs are also addressed.

As a continued battle to the first field, some other questions are left to be answered. The level of stabilization present in this market is, nonetheless, required further examination over time. Nevertheless, the understanding of these issues can be used both by academia, by the State, and by consumers, producers, and traders to boost trade. The use of evidence in market construction can have sustainable consequences and promote development.

Finally, the present work did not intend to broach specific products, but to provide an overview of the market for GI agri-food products and the differences between the EU and Mercosur regarding the most prominent sectors and the organizational influence. Therefore, its scope is limited in this scope, carried out in the period of collection of information and in the electronic means used.

5.7 References

Acemoglu, D., & Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, *113*(5), 949–995. https://doi.org/10.1086/432166

Acemoglu, D., Johnson, S., & Robinson, J. (2005). The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth. *American Economic Review*, *95*(3), 546–579. https://doi.org/10.1257/0002828054201305

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, *91*(5), 1369–1401. https://doi.org/10.1257/aer.91.5.1369

Acemoğlu, D., & Robinson, J. A. (2016). Paths to inclusive political institutions. In J. Eloranta, E. Golson, A. Markevich, & N. Wolf (Eds.), *Economic History of Warfare and State Formation. Studies in Economic History* (pp. 3–50). Springer.

Addor, F., & Grazioli, A. (2002). Geographical indications beyond wines and spirits: A roadmap for a better protection for geographical indications in the WTO/TRIPS agreement. *J. World Intell. Prop.*, *5*, 865.

Agostino, M., & Trivieri, F. (2014). Geographical indication and wine exports. An empirical investigation considering the major European producers. *Food Policy*, *46*, 22–36.

Allaire, G. (2009, August 16). Economics of Conventions and the New Economic Sociology and our Understanding of Food Quality and New Food Markets and Trade Institutions: What are markets that pure economics does not know? *Plenary Session 5 "The New Landscape and the Need for an Extension to the Agricultural Economics Toolkit."* 27th International Conference of Agricultural Economist, Beijing. https://doi.org/10.22004/AG.ECON.53203

Allaire, G. (2010). Applying economic sociology to understand the meaning of "Quality" in food markets. *Agricultural Economics*, *41*, 167–180.

Allaire, G. (2018). Quality in economics: A cognitive perspective. In *Qualities of food*. Manchester University Press.

Allaire, G., & Wolf, S. A. (2004). Cognitive Representations and Institutional Hybridity in Agrofood Innovation. *Science, Technology, & Human Values*, *29*(4), 431–458. https://doi.org/10.1177/0162243904265896

Aprile, M. C., Caputo, V., & Nayga Jr, R. M. (2012). Consumers' valuation of food quality labels: The case of the European geographic indication and organic farming labels. *International Journal of Consumer Studies*, *36*(2), 158–165. https://doi.org/10.1111/j.1470-6431.2011.01092.x

Barham, E. (2003). Translating terroir: The global challenge of French AOC labeling. *Journal of Rural Studies*, *19*(1), 127–138.

Barham, E., & Sylvander, B. (Eds.). (2011). *Labels of origin for food: Local development, global recognition*. CABI. https://doi.org/10.1079/9781845933524.0000

Barjolle, D., Paus, M., & Perret, A. O. (2009). *Impacts of geographical indications-review of methods and empirical evidences*.

Barjolle, D., Quiñones-Ruiz, X. F., Bagal, M., & Comoé, H. (2017). The Role of the State for Geographical Indications of Coffee: Case Studies from Colombia and Kenya. *World Development*, *98*, 105–119. https://doi.org/10.1016/j.worlddev.2016.12.006

Beunza, D., & Stark, D. (2004). Tools of the trade: The socio-technology of arbitrage in a Wall Street trading room. *Industrial and Corporate Change*, *13*(2), 369–400. https://doi.org/10.1093/icc/dth015

Block, F. L. (2018). *Capitalism: The Future of an Illusion*. Univ of California Press.

Boatto, V., Defrancesco, E., & Trestini, S. (2011). The price premium for wine quality signals: Does retailers' information provision matter? *British Food Journal*, *113*(5), 669–679. Scopus. https://doi.org/10.1108/00070701111131764

Bonanno, A., & Constance, D. H. (2001). Globalization, Fordism, and Post-Fordism in agriculture and food: A critical review of the literature. *Culture & Agriculture*, *23*(2), 1–18.

Bonnet, C., & Simioni, M. (2001). Assessing consumer response to Protected Designation of Origin labelling: A mixed multinomial logit approach. *European Review of Agricultural Economics*, *28*(4), 433–449.

Bourdieu, P. (1977). *Outline of a Theory of Practice* (R. Nice, Trans.; Reprint edition). Cambridge University Press.

Bourdieu, P. (1987). *Distinction: A Social Critique of the Judgement of Taste*. Harvard University Press.

Bourdieu, P. (2000). *Pascalian Meditations*. Stanford University Press.

Burt, R. S. (2021). *Structural Holes*. Harvard University Press. https://doi.org/10.4159/9780674029095

Callon, M. (1998). Introduction: The Embeddedness of Economic Markets in Economics. *The Sociological Review*, *46*(1_suppl), 1–57. https://doi.org/10.1111/j.1467-954X.1998.tb03468.x

Callon, M. (2020). What does it mean to say that economics is performative? In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), *Do Economists Make Markets?* Princeton University Press. https://doi.org/10.1515/9780691214665

Campbell, I. (1990). The Australian trade union movement and post-Fordism.-Revised paper presented to the Political Economy Conference (1989: Sydney). *Journal of Australian Political Economy, The*, *26*, 1–26.

Carlucci, D., De Gennaro, B., Roselli, L., & Seccia, A. (2014). E-commerce retail of extra virgin olive oil: An hedonic analysis of Italian Smes supply. *British Food Journal*, *116*(10), 1600–1617. Scopus. https://doi.org/10.1108/BFJ-05-2013-0138

Cei, L., Defrancesco, E., & Stefani, G. (2018). From geographical indications to rural development: A review of the economic effects of European Union policy. *Sustainability (Switzerland)*, *10*(10). Scopus. https://doi.org/10.3390/su10103745

Chilla, T., Fink, B., Balling, R., Reitmeier, S., & Schober, K. (2020). The EU Food Label 'Protected Geographical Indication': Economic Implications and Their

Spatial Dimension. *Sustainability*, *12*(14). https://doi.org/10.3390/su12145503

Cristobal-Fransi, E., Montegut-Salla, Y., Ferrer-Rosell, B., & Daries, N. (2020). Rural cooperatives in the digital age: An analysis of the Internet presence and degree of maturity of agri-food cooperatives' e-commerce. *Journal of Rural Studies*, *74*, 55–66. https://doi.org/10.1016/j.jrurstud.2019.11.011

Crouch, C., Gales, P. L., Trigilia, C., & Voelzkow, H. (2001). Local Production Systems in Europe: Rise or Demise? In *OUP Catalogue*. Oxford University Press. https://ideas.repec.org/b/oxp/obooks/9780199242511.html

de Mattos Fagundes, P., Padilha, A. C. M., Sluszz, T., & Padula, A. D. (2012). Geographical indication as a market orientation strategy: An analysis of producers of high-quality wines in Southern Brazil. *Journal of Database Marketing & Customer Strategy Management*, *19*(3), 163–178.

Dentoni, D., Menozzi, D., & Capelli, M. G. (2012). Group heterogeneity and cooperation on the geographical indication regulation: The case of the "Prosciutto di Parma" Consortium. *Food Policy*, *37*(3), 207–216.

Dervillé, M., & Allaire, G. (2014). Change of competition regime and regional innovative capacities: Evidence from dairy restructuring in France. *Food Policy*, *49*, 347–360.

Deselnicu, O. C., Costanigro, M., Souza-Monteiro, D. M., & McFadden, D. T. (2013). A meta-analysis of geographical indication food valuation studies: What drives the premium for origin-based labels? *Journal of Agricultural and Resource Economics*, 204–219.

Dias, C., & Mendes, L. (2018). Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (TSG): A bibiliometric analysis. *Food Research International*, *103*, 492–508. https://doi.org/10.1016/j.foodres.2017.09.059

Dobbin, F. (1994). *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*. Cambridge University Press.

European Commission. (2020, November 26). *EAmbrosia*. EAmbrosia. https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/

Fernández-Zarza, M., Amaya-Corchuelo, S., Belletti, G., & Aguilar-Criado, E. (2021). Trust and Food Quality in the Valorisation of Geographical Indication Initiatives. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063168

Fligstein, N. (1993). *The transformation of corporate control*. Harvard University Press.

Fligstein, N. (1996). Markets as Politics: A Political-Cultural Approach to Market Institutions. *American Sociological Review*, *61*(4), 656. https://doi.org/10.2307/2096398

Fligstein, N. (1997). Social skill and institutional theory. *American Behavioral Scientist*, *40*(4), 397–405.

Fligstein, N. (2001). Social skill and the theory of fields. *Sociological Theory*, *19*(2), 105–125.

Fligstein, N. (2002). *The architecture of markets: An economic sociology of twenty-first-century capitalist societies*. Princeton University Press.

Fligstein, N. (2008). *Euroclash: The EU, European identity, and the future of Europe*. Oxford University Press on Demand.

Fligstein, N. (2015). The Theory of Fields and Its Application to Corporate Governance. *Seattle University Law Review*, *39*, 237.

Fligstein, N., & Calder, R. (2015). Architecture of Markets. In *Emerging Trends in the Social and Behavioral Sciences* (pp. 1–14). American Cancer Society. https://doi.org/10.1002/9781118900772.etrds0014

Fligstein, N., & Dauter, L. (2007). The Sociology of Markets. *Annual Review of Sociology*, *33*(1), 105–128. https://doi.org/10.1146/annurev.soc.33.040406.131736

Fligstein, N., & McAdam, D. (2012). *A theory of fields*. Oxford University Press.

Fligstein, N., & McAdam, D. (2014). The Field of Theory. *Contemporary Sociology*, *43*(3), 315–318. https://doi.org/10.1177/0094306114531283a

Fourcade, M. (2007). Theories of Markets and Theories of Society. *American Behavioral Scientist*, *50*(8), 1015–1034. https://doi.org/10.1177/0002764207299351

Fracarolli, G. S. (2021a). Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges. *Land*, *10*(11). https://doi.org/10.3390/land10111182

Fracarolli, G. S. (2021b). Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union. *Economies*, *9*(2). https://doi.org/10.3390/economies9020084

Fracarolli, G. S. (2021c). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063476

Gade, D. W. (2004). Tradition, Territory, and Terroir in French Viniculture: Cassis, France, and Appellation Contrôlée. *Annals of the Association of American Geographers*, *94*(4), 848–867. https://doi.org/10.1111/j.1467-8306.2004.00438.x

Gahan, P. (1993). Mathews and the new production concepts debate.-Reply to Mathews, John. New production systems: A response to critics and a re evaluation; in no. 30, Dec 1992. *Journal of Australian Political Economy, The*, *31*, 74–88.

Galtier, F., Belletti, G., & Marescotti, A. (2008). Are Geographical Indications a way to" decommodify" the coffee market? *S.l.*, 15 p.

Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. University of California Press.

Goodman, D. (2002). Rethinking Food Production–Consumption: Integrative Perspectives. *Sociologia Ruralis*, *42*(4), 271–277. https://doi.org/10.1111/1467-9523.00216

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, *91*(3), 481–510. https://doi.org/10.1086/228311

Granovetter, M. (2005). The Impact of Social Structure on Economic Outcomes. *Journal of Economic Perspective*, *19*(1), 33–50.

Hinrichs, C. C. (2000). Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303. https://doi.org/10.1016/S0743-0167(99)00063-7

Hodgson, G. M. (1988). Economics and institutions. *Journal of Economic Issues*.

Huysmans, M., & Swinnen, J. (2019). No Terroir in the Cold? A Note on the Geography of Geographical Indications. *Journal of Agricultural Economics*, *70*(2), 550–559. https://doi.org/10.1111/1477-9552.12328

Ilbery, B., Kneafsey, M., Söderlund, A., & Dimara, E. (2001). Quality, imagery and marketing: Producer perspectives on quality products and services in the lagging rural regions of the European Union. *Geografiska Annaler: Series B, Human Geography*, *83*(1), 27–40.

INPI. (2020, November 26). *Pedidos de Indicação Geográfica no Brasil*. Instituto Nacional da Propriedade Industrial. https://www.gov.br/inpi/pt-br/servicos/indicacoes-geograficas/pedidos-de-indicacao-geografica-no-brasil

Jorge-Vázquez, J., Chivite-Cebolla, M. P., & Salinas-Ramos, F. (2021). The Digitalization of the European Agri-Food Cooperative Sector. Determining Factors to Embrace Information and Communication Technologies. *Agriculture*, *11*(6). https://doi.org/10.3390/agriculture11060514

Josling, T. (2006). The war on terroir: Geographical indications as a transatlantic trade conflict. *Journal of Agricultural Economics*, *57*(3), 337–363.

Kenney, M., Lobao, L. M., Curry, J., & Goe, W. R. (1989). Midwestern agriculture in US Fordism: From the new deal to economic restructuring. *Sociologia Ruralis*, *29*(2), 131–148.

Lin, C. (2021). An empirical study on decision factors affecting fresh e-commerce purchasing geographical indications agricultural products. *Acta Agriculturae*

Scandinavica Section B: Soil and Plant Science, *71*(7), 541–551. Scopus. https://doi.org/10.1080/09064710.2020.1834610

Loureiro, M. L., & McCluskey, J. J. (2000). Assessing consumer response to protected geographical identification labeling. *Agribusiness: An International Journal*, *16*(3), 309–320.

MacKenzie, D. (2008). *An Engine, Not a Camera: How Financial Models Shape Markets*. MIT Press.

MacKenzie, D., & Millo, Y. (2003). Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange. *American Journal of Sociology*, *109*(1), 107–145. https://doi.org/10.1086/374404

Marlowe, B., & Lee, S. (2018). Conceptualizing Terroir Wine Tourism. *Tourism Review International*, *22*(2), 143–151. https://doi.org/10.3727/154427218X15319286372298

Meloni, G., & Swinnen, J. (2018). Trade and terroir. The political economy of the world's first geographical indications. *Food Policy*, *81*, 1–20. https://doi.org/10.1016/j.foodpol.2018.10.003

Menapace, L., Colson, G., Grebitus, C., & Facendola, M. (2011). Consumers' preferences for geographical origin labels: Evidence from the Canadian olive oil market. *European Review of Agricultural Economics*, *38*(2), 193–212. https://doi.org/10.1093/erae/jbq051

Ministerio de Agricultura, Ganadería y Pesca. (2020, September 9). *Dirección Nacional de Alimentos y Bebidas—Indicación geográfica y denominación de origen*. http://www.alimentosargentinos.gob.ar/HomeAlimentos/IGeo/productos_reconocidos.php

North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, *5*(1), 97–112. https://doi.org/10.1257/jep.5.1.97

North, D. C. (1992). *Transaction costs, institutions, and economic performance*. ICS Press.

Polanyi, K. (2001). *The Great Transformation: The Political and Economic Origins of Our Time* (2nd edition). Beacon Press.

Powell, W. W., & DiMaggio, P. J. (2012). *The New Institutionalism in Organizational Analysis*. University of Chicago Press.

Prosur Proyecta. (2020, November 26). *Secreto Industrial*. Prosur Proyecta - Uruguay. https://www.prosurproyecta.org/uruguay/categoria-explorador/secreto-industrial/

Quiñones-Ruiz, X. F., Penker, M., Belletti, G., Marescotti, A., & Scaramuzzi, S. (2017). Why early collective action pays off: Evidence from setting Protected Geographical Indications. *Renewable Agriculture and Food Systems*, *32*(2), 179–192. Cambridge Core. https://doi.org/10.1017/S1742170516000168

Renard, M.-C. (1999). The Interstices of Globalization: The Example of Fair Coffee. *Sociologia Ruralis*, *39*(4), 484–500. https://doi.org/10.1111/1467-9523.00120

Roselli, L., Carlucci, D., & De Gennaro, B. C. (2016). What Is the Value of Extrinsic Olive Oil Cues in Emerging Markets? Empirical Evidence from the U.S. E-Commerce Retail Market. *Agribusiness*, *32*(3), 329–342. Scopus. https://doi.org/10.1002/agr.21454

Roselli, L., Giannoccaro, G., Carlucci, D., & De Gennaro, B. (2018). EU quality labels in the Italian olive oil market: How much overlap is there between geographical indication and organic production? *Journal of Food Products Marketing*, *24*(6), 784–801.

Say, J.-B. (2017). *A Treatise on Political Economy*. Routledge. https://doi.org/10.4324/9781351315685

Skuras, D., & Vakrou, A. (2002). Consumers' willingness to pay for origin labelled wine: A Greek case study. *British Food Journal*, *104*(11), 898–912. Scopus. https://doi.org/10.1108/00070700210454622

Smith, A. (1994). *The wealth of nations* (E. Cannan, Ed.). Modern Library.

Swinnen, J. F. (2016). Economics and politics of food standards, trade, and development. *Agricultural Economics*, *47*(S1), 7–19. https://doi.org/10.1111/agec.12316

Teuber, R. (2010). Geographical indications of origin as a tool of product differentiation: The case of coffee. *Journal of International Food & Agribusiness Marketing*, *22*(3–4), 277–298.

Teuber, R. (2011). Consumers' and producers' expectations towards geographical indications. *British Food Journal*, *113*(7), 900–918. https://doi.org/10.1108/00070701111148423

Trigilia, C. (2001). Social Capital and Local Development. *European Journal of Social Theory*, *4*(4), 427–442. https://doi.org/10.1177/13684310122225244

Trigilia, C. (2008). *Economic Sociology: State, Market, and Society in Modern Capitalism*. John Wiley & Sons.

White, H. C. (1981). Where Do Markets Come From? *American Journal of Sociology*, *87*(3), 517–547. https://doi.org/10.1086/227495

White, H. C. (2018). *Markets from Networks: Socioeconomic Models of Production*. Princeton University Press. https://muse.jhu.edu/book/61080

Wilson, B., & Ewer, P. (1996). 'New' Production Concepts: Implications for Union Strategy. *Labour & Industry: A Journal of the Social and Economic Relations of Work*, *7*(2), 123–143. https://doi.org/10.1080/10301763.1996.10669164

World Intellectual Property Organization. (2021, June 29). *Geographical Indications*. https://www.wipo.int/geo_indications/en/index.html

Yue, C., Marette, S., & Beghin, J. C. (2013). How to promote quality perception: Brand advertising or geographical indication? In *Front. Econ. Globalization* (Vol. 12, p. 98). Emerald Group Publishing Ltd.; Scopus. https://doi.org/10.1108/S1574-8715(2013)0000012008

6. Rural development and institutions in the agri-food market: The Brazilian case

Abstract: National development results from the stability and political orientation of institutions. It is no different for rural areas. This paper investigates how institutions' construction influences the GI market development and favors specific productive arrangements in Brazil by combining different theoretical approaches. These theories are confronted with the sociological formation of the country's institutions analytically and critically. The results point to a State with occasional changes in value chains without changing production structures. Institutions have remained semi-unaltered since colonization, still privileging the production of commodities and constraining the internal and diversified supply of agri-foodstuffs. The article demonstrates the path dependence of Brazilian institutions on maintaining colonial interests and economic preferences of specific groups conflicting with GI market development. Thus, the model adopted in the country leads to the country's politically oriented rural development, guided by the construction of institutions focused on specific and politically oriented value chains. The findings also conclude the existence of a so-called institutional paradox of rural development. This paradox is a situation in which institutions operate for the benefit of specific groups to the detriment of the economic and social development of the majority to ensure stability.

Keywords: geographical indication; field theory; market construction; e-retail; agri-food market; economic sociology

6.1. Introduction

The development of nations involves a strategy planned by local governments and carried out by institutions. The nation-states' relative position in a world-system configuration significantly influences the production of goods and services (Wallerstein, 2011). In order to develop, institutions must guide political-economic directions and operate according to their genesis and the agents involved (Fracarolli, 2021a). Currently, agrarian policy and governance are influenced by different economic and social sectors by various institutions and objectives (Giménez & Shattuck, 2011).

When Wallerstein developed his understanding of the capitalist system in three categories (1. Core, 2. Semi-periphery and 3. Periphery), the author refers to the division of labor and the capital flow. In this form of division, developing countries tend to be at the end of Wallerstein's world system (2011). These countries have economies sustained in producing standardized and homogenized goods and services and are importers of

added value, more industrialized, and highly technological goods. Countries like Brazil, Mexico or Eastern Europe are located in an intermediate zone, called by the author semi-periphery, having characteristics of the center for the most peripheral and periphery for the most central.

The Brazilian case, typically semi-peripheral, plays a central political-economic role for the other South American countries. However, it is on the periphery of countries like Canada, the USA and Western Europe. Its economy is driven by oil and mineral extraction and agricultural commodities, such as soybean, corn, and sugar.

The production of goods and services by a nation-state affects all economically active sectors. The agricultural sector is no different and is significantly relevant to the economy of many countries. Nations in development tend to be more dependent on primary sectors. The strategic design of agricultural development is also inherent to its position in the world system and exerts influence on national policy to its economic-political importance.

One of the markets asymmetrically impacted by the development of the capitalist system is that of products with GI. Therefore, comprehending how institutions are built is crucial to understanding the market's functioning and its impact in each region.

The work aims to critically analyze institutional effects on the country's Geographical Indication (GI) development. In order to do it, the work discusses the construction of the country's institutions and the consequent effect on GI. The topic is increasingly relevant due to the growing debate about food, the environment, and food systems toward sustainable, healthier and meaningful development (Garnett T. et al., 2013; Giménez & Shattuck, 2011; Godfray et al., 2010). Thus, the present work hopes to contribute to a better understanding of why the country has a relatively small market compared to other parts of the world.

The discussion of food systems feeds another issue. The importance of value-adding food commerce such as organic, local, GI or fair trade (Bowen, 2010; Lambin et al., 2014; Martinez et al., 2010; Raynolds, 2000, 2018; Renard, 2003). The present work pays special attention to the agricultural development linked to products with added value through geographical indication due to their ability to translate a significant set of intrinsic values.

This work will qualitatively analyze institutions' historical construction and how they impact the GI market to fulfill the task. Furthermore, the work will discuss the Brazilian agrarian scenario through the lens of different theories. By doing so, it will be able to build the causal link between institutional formation and the GI market in the country.

6.2. Institutional formation

Market results do not happen by mere chance or the free action of an invisible hand. Instead, markets result from social constructions and the embeddedness of factors, such as networks, performance and institutions (Fligstein & Dauter, 2007; Granovetter, 1985; Smelser & Swedberg, 2010; Steiner, 2017). For this reason, market studies must not restrict to consequences and actors' behavior but also understand the mechanisms that build these markets.

The present work consists of a qualitative analysis of the country's institutional structure toward sustainable development. Consequently, it relates the country's history of social and economic construction with the existing literature on development processes. The methodology adopted is supported by previous and consolidated works on the subject and analyzed through theoretical dialectics applied to the present case (Daniel, 2022; Fracarolli, 2021a; Lawson, 2022; Patton, 1999; Wesz Junior, 2022).

This is a sociological, qualitative and theoretical work. Despite bringing numerical data, they support the argumentation on different aspects discussed. Thus, to adequately address the subject, the present work uses interpretive methods in the face of the dialectic of theories presented. The choice of this analytical path is justified in the explanatory capacity of understanding the reasons for functioning beyond the form of the institutions' operating mechanisms.

Thus, this work does not follow an order of reporting empirical experiments but a logical sequence that allows the theoretical contextualization of the Brazilian historical and social formation. Next, it presents data from official sources to confront the theoretical support shown.

The theoretical ballast used to support this paper is not idle or empty. Since the 1980s, economic sociology has come back to life (Granovetter, 1985). The branch sees economic actions as social action and seeks phenomena explanations on embeddedness. Among its subdivisions, one of them seeks explanations of economic phenomena in the involvement of institutions. Therefore, this is the path used in this work to explain the agricultural GI market in Brazil. In short, the institutional path understands that formal or informal arrangements in the design of rules between actors foster or constrain social actions (Fligstein, 1996, 2008; Pierre & Rothstein, 2011; Scott, 2013). However, institutions will be better explained later.

Since this is not a literature review, the references do not follow a specific timeframe or database. However, to fulfill its objectives and adequately analyze institutional tools that influence the construction of the Brazilian agri-food market, it is necessary to build the study on the previous reference works on the sociological construction of the country's elites. Therefore, this section regards the explanation of the mechanics required to discuss the proposed issue.

Then, this paper consists of a logical sequence of knowledge construction. The theoretical support provided is divided into four fundamental aspects of the construction: Development so that it is possible to analyze the path taken and to be covered by the sector; Institutions, in order to understand the mechanism of action of social structures and implications of the embeddedness between the various actors and the market and; The agri-food market, regarding the construction of agri-food systems and human relations; Lastly about new theoretical perspectives to provide future paths.

The analysis was carried out through the disengagement of each related aspect regarding the sociological characterization of institutional construction, development, institutions and the agri-food market. From a critical perspective, this work builds the bridges between these three issues. Complementarily, it points to the consequences of employing institutions in this sense. The dismemberment of theories about each subject allows for a more assertive and comprehensive approach. Thus, it becomes possible to analyze the functioning of institutions operating in this market and the relationships with the type of development underway. Therefore, through the critical analysis of these institutions, it will be possible to establish a correlation and build a causal nexus between their origins and consequences.

Thus, it establishes not only a mere correlation between certain aspects and the present situation but provides sufficient subsidies to establish a multi-referential causal nexus of the structure of the institutions operating in the Brazilian agri-food market. However, it also has limitations since they are not the only elements capable of showing how institutions operate. Elements such as the political representation of the components of the legislature and the executive responsible for the sector's governmental guidelines would also compose a relevant structural aspect. Therefore, this subject needs to be the target of future research.

After bringing the theories for analysis, the work will discuss the institutional scenario for GIs in Brazil. This way, it can make a deeper analysis without running the risk of mere correlation. The analysis of these theories is the most appropriate method to

address the construction of the structures of this market. This way, it can analyze how Brazilian colonization was decisive in constructing the national GI agri-food market, establishing a path dependence.

In the conception of the new institutional economics, it is possible to analyze the performance of institutions from multiple factors. In this way, the present case allows for an endless number of factors through which institutions manifest themselves and actively act in the construction of this market. Considering these possibilities, we analyzed four mechanisms by which institutions act on markets.

Lastly, new empirical works could add value to this research by focusing on practical elements, such as land ownership, land tenancy, agrarian reforms, structural changes, government agricultural and food policy, extension system, farmers' organizations, and local governments and NGOs. This opens up the possibility of using these other factors in future analyses.

6.3. Development, institutions and agri-food

6.3.1. Development

There are several development concepts and theories coined over time. If, in the beginning, the term was more related to an economic issue and progress, today, other aspects are also considered, as detailed by (Du Pisani, 2006). For that, the linkage between the concepts of sustainability and development is essential. Otherwise, the concept is reduced and does not live up to a modern worldview.

If initially development was based on an economic concept, embedded in the notion of monofocal performance of firms, more recently, sustainability began to share conceptual support by adding the environment and the social to the economy. However, if economics is not enough to conceptualize development, neither is there is room for environmental and social improvement without it. Nevertheless, even after successive attempts to theorize development over time, there is still relevance in applying them in observing phenomena that exist today. Next, we will consider some theories and point out perspectives most relevant to the present case.

While some authors reduce development theories to modernization and dependence (Du Pisani, 2006), others add world-system and globalization (Mensah, 2019). Still, others prefer to emphasize the nuances that characterize conventional, unconventional and critical theoretical strands and proposals for the future (Peet & Hartwick, 2015).

Modernization theory is based on liberal values and the division of traditional and modern societies (Du Pisani, 2006; Mensah, 2019; Peet & Hartwick, 2015). The former have their development restricted by norms, beliefs and values, responsible for holding back progress, assuming the latter as models supported by the free market (Mensah, 2019). The theory also assumes that Western countries are references for modernization and social evolution. Therefore, it assumes that traditional societies are backward and lack development-oriented virtues.

Thus, "modern" societies were associated with rationality and efficiency towards the industrial model in the liberal sense (Mensah, 2019; Peet & Hartwick, 2015). Therefore, traditional societies should only follow and copy the models of modern nations' models to become developed (Du Pisani, 2006; Peet & Hartwick, 2015). However, history has shown that this model not only failed but widened differences between nations, often between Europe and its former colonies, assuming an ethnocentric premise.

On the other hand, dependency and world-system theory, coined neostructural Marxism, is allied to critical thinking. These theories were conceptualized by So (1990, p. 262) as "a set of externally imposed, exploitative, dependent, economic relationships incompatible with development." These theories focus on the relationship of economic domination by countries at the center of capitalism's power to nations on the system's margins. Hence, this relationship of domination of the center over the periphery remains even after the colonial era. Thus, this new perspective rejects the vision of the first and third worlds. Therefore, the relationship between nations is hierarchical and unequal in the world economy.

Consequently, these theories remain current in economic analysis between the countries. The ones in the capitalism center are sustained at the expense of the resources and labor of developing and peripherical countries, compromising their development (Peet & Hartwick, 2015; Petras, 1981; Wallerstein, 2011). Despite criticisms, such as over-jumping the market and underestimating production relations, analyses such as Fracarolli's (Fracarolli, 2021a) still demonstrate that the issues that maintain the market orientation are still relevant.

As for Brazil, Cardoso (Cardoso & Faletto, 2021) and Santos (1970) coined the dependency theory as the appropriate way of analyzing the Brazilian case. Santos (1970) points to the entry of Latin America into the capitalist system through trade-oriented toward meeting the demands of the colonial center to the detriment of its needs. Thus, for the author, regional power was constituted through the export of goods in order to satisfy

elite consumption. The argument is ratified by Frank (1967, 1969, 1979) when he points out the expansion of capitalism to the periphery of the system as the leading cause of underdevelopment. In short, the periphery's underdevelopment results from the center's development, financed by surplus loss.

The above arguments apply specifically to the agricultural case defended by Emmanuel (1972). His theory of unequal exchange points out that these products focus on exports from peripheral countries and imports of industrialized ones from the center. Thus, it demonstrates capital's mobility and workforce immobility. This phenomenon causes rich nations to get richer on the impoverishment of developing countries.

So, Santos (1970) understands that the dependency system remains in a thesis similar to that of Furtado (Furtado, 2000; Tavares et al., 2000) regarding the penetration of foreign corporations in Latin American countries, maintaining the development of the capitalist center.

Further on, Furtado (2000) and Peet & Hartwick (2015) observes that it is wrong to reconstruct an abstract model of development disconnected from his historical experience. The author also points out the importance of industrialization in the European economic transformation, thus favoring the penetration of modern capitalist companies in archaic structures (Furtado, 2000). This process forces import substitution policy in developing countries, consolidating underdevelopment in the third world.

Despite the limitations of the theories presented, in a complementary way, they strengthen the analysis of the developmental process and add to the understanding of the formation and present situation of Latin America and Brazil in particular.

Lastly, Peet and Hartwick (2015) defend a new theoretical development perspective. The authors propose a democratic development, supported by a "radical democracy," granting all institutional decisions to popular participation as a form of inducing development. Although it is based on an idealistic proposition, it is also based on a Western concept of democracy. Thus, despite this, it finally allows national development decisions to emanate endogenously, even if the influence of external thinking is inevitable due to the very formation of institutions in the Brazilian case (Fracarolli, 2021a).

6.3.2. Institutions

Despite the different conceptualizations used for institutions, most of them have similarities. Since the Weberian approach, institutionalism has gained new contours in recent decades and has come to be called neo-institutionalism. North, for example,

defined institutions as "the humanly devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)" (North, 1991, p. 97). For Scott (2013), institutions are a set of structures and activities to provide stability and meaning. While Fligstein (1996, p. 658), states that they refer to "shared rules, […] held in place by custom, explicit agreement, or tacit agreement. These institutions enable actors in markets to organize themselves, to compete and cooperate, and to exchange". On the other hand, Lounsbury and Crumley (2007, p. 996) understand institutions as "sets of material activities that are fundamentally interpreted and shaped by broader cultural frameworks such as categories, classifications, frames, and other kinds of ordered belief systems." In sum, today's neo-institutionalist approach can encompass an endless range of problems without consensus on the definition of the problem (Alvesson & Spicer, 2019). However, this work does not intend to establish a definition.

Although there is no consensus on a precise definition, as Pierre and Rothstein (2011) argued, based on the Weberian conception of institutions, it promotes trust between states, citizens, and the market due to its construction design. Thus, it creates a general rule that promotes security (Pierre & Rothstein, 2011, pp. 2–3). In this case, security should be comprehended as stability, a key factor for institutions. However, the Weberian model needs updates due to expanding the format's understanding in which the rules are put into play.

Therefore, the adoption of Fligstein's conception is due to developing both a definition and a market-oriented theory. Furthermore, as the present work deals with the agri-food market in the Brazilian context, his definition embraces the scope of this research.

Thus, if formal or informal institutions allow or constrain social and economic actions, they also interfere in national development. In this way, the orientation of institutions is decisive in how nations develop. For example, specific economic sectors are boosted or overlooked depending on the institutional formation.

For this reason, in deepening the understanding of the relationships between institutions and the context of colonization, Acemoglu, Johnson, and Robinson (Acemoglu et al., 2001) pointed to an asymmetry in nations' economic and social development. The authors (Acemoglu et al., 2001), looking back at the African and South American continents, demonstrated that the purpose of colonization implies significant

differences in the subsequent development of nations. The conclusion focuses on the final purpose of colonization. Where colonization was intended only to exploit primary goods to supply the capital, it constrained local development in the long term. On the other hand, where colonization took place for permanence, the construction of institutions allowed its development. The argumentation uses as premises three central factors: types of colonial policies, the feasibility of settlements, and those institutions' persistence to the present.

Acemoğlu, in other works, also points to significantly essential aspects of local development (Acemoglu et al., 2011; Acemoglu & Robinson, 2006; Acemoğlu & Robinson, 2016). The author points out that interest groups operate in democratic institutions to influence the state apparatus according to their interests to maintain privileges. Therefore, institutions' commitment is established not toward nation's development but with biased toward dominant groups in the institutions. Complementarily, Zald and Lounsbury walk in the same direction when they point to the influence of elites in positions of power in maintaining social order (Zald & Lounsbury, 2010).

It may seem misplaced that the present work uses works from the beginning/middle of the 20th century. However, the in-depth analysis of these works and the unaltered Brazilian bureaucratic structure, together with the incompleteness of transformation of the Brazilian State, justify its uses. In this manner, works such as those by Buarque de Holanda (2015) and Faoro (2021) are timeless works in the sociological dissection of the functioning of Brazilian institutions.

Prado Jr, Buarque de Holanda, and Faoro wrote their main works on the formation of the Brazilian State between the 30s and 50s, therefore contemporary. At that time, Brazil consolidated itself as an independent country for over a hundred years. Also, it became a republic at the end of the 19th century. Thus, the context at that time is of significant transformations regarding the productive forms unfolding in Europe.

As conceived by the author, Prado Jr (2011) uses a Marxist approach to analyze the Brazilian context. The author uses historical materialism to analyze national facts, processes and structures to explain the country's social and economic inequalities and contradictions. In his work's development, the author points to the meaning of colonization exercised in the country as a form of capitalism. For him, the Brazilian social and economic formation was sustained in the colonization by extensive and speculative exploitation to supply the empire essentially with primary agricultural products, such as

sugar, coffee, and minerals, using the hand of slave work. That would be the meaning of national development from colonization.

Unlike Prado Jr (2011), Buarque de Holanda (2015) and Faoro (2021) use Weberian approaches to propose explanations for the formation of Brazil. Buarque de Holanda's essay is a Brazilian sociological landmark (Buarque de Holanda, 2015). Like Prado Jr, he argues that colonization's legacy explanations regarding the cultural formation and personalist legacy in constructing the State in the American continent. In addition, the author points out the slavery and colonial heritage, rooted in a weak economy, a despotic elite and an authoritarian society.

Similar to Acemoglu (Acemoglu et al., 2001), Buarque de Holanda (2015) also credits the difference between the colonization of South and North America. However, they differ in the reasons for the success of the incursion on the continent. However, the author analyzes Brazilian colonization differently from Prado Jr, seeing more feudal characteristics than capitalists, despite both seeing the historical moment as based on extractivism and export plantation. Still, he points to the formation of rural and patriarchal society with the development of this type of economic activity in the region, even compromising the development of the industrialization process and republican transition supported by an essentially rural elite.

Finally, Faoro's (2021) work brings together the points opened by Buarque de Holanda and Prado Jr. Published shortly after the others, "Os Donos do Poder" (The Owners of Power), describes the formation of the patrimonial structure in the Brazilian State (Faoro, 2021). However, he denies the feudal characteristics due to the absence of relations between sovereigns and vassalages. This situation occurs from the development of politically oriented capitalism, featuring a bureaucratic State, in which the real owners of power benefit, heirs of the then absolutist Portuguese State, taken to colonial Brazil.

In this way, the formation of the Brazilian State is based on the construction of patrimonial institutions, essentially rural oriented towards the export of agricultural and mining products on a large scale to supply industrialized centers. This whole context results from colonization oriented to benefit the absolutist power heirs' remaining in the institutions until the present. This model is what gives meaning to the capitalism practiced in the country.

6.3.3 Agri-food and local issues

Agrarian models have been crucial for developing collectivity since the Neolithic period. At that time, societies began to settle down due to the domestication of plants and animals.

Fracarolli's work (Fracarolli, 2021a) demonstrated the evolution of agrarian systems over time based on the theory of Mazoyer and Roudart (2010). Through theory, it is possible to understand the field as a multifactorial result over time and space, as well as the interactions between societies and land use. The author travels through history and shows systems' evolution and adaptations to meet food needs as urbanization progresses (Fracarolli, 2021a).

However, agri-food systems, constantly reformed by incrementally changing the forms of production, also underwent some revolutions. Such revolutions result from significant transformations in the food production process. In the industrial revolution process, also agricultural revolutions occurred in the countryside.

The industrial revolution brought paradigm shifts to this sector and how food is produced and consumed. Forged within Taylorism, the agrarian impact was colossal (Bonanno & Constance, 2001). Agrarian systems had to adapt to massive food production. As a result, there was a need for standardization and homogenization of production (Bonanno & Constance, 2001; Fracarolli, 2021a). Besides reducing the possibility of productive diversification in these areas, it also reduced the social and ecological interactions (Fracarolli, 2021a; Mazoyer & Roudart, 2010). The need to meet the growing demand for food meant that, instead of consumer goods with surplus commercialization, food became the end, thus becoming commodities and being subject to financialization. According to Clapp and Isakson (2018), this process increases inequality between the actors in these systems, makes socio-ecological resilience vulnerable, and compromises collective action.

Throughout industrialization, the demand for workers in cities also increased. It also started a mechanization process in the countryside. So workers tended to migrate from the countryside to urban centers (Mazoyer & Roudart, 2010). However, the need for food was increasing as the population also grew. Thus, colonies and ex-colonies were pushed to the periphery of capitalism and tasked with producing food within a global spectrum of labor division (Wallerstein, 2011). Hence, in the face of the neoliberalization of world agriculture, the impact between the countries involved becomes asymmetrical (Bernstein, 2021; Wallerstein, 2011).

Land uses have different impacts on the food system and sustainability unevenly and globally interconnectedly (Meyfroidt et al., 2022). These highly intensified monoculture systems are antagonistic to traditional and environmentally sound systems. This context is where GIs can act as a tool (Belletti et al., 2015). This type of product still depends on the collective efforts of its members and favorable institutional arrangements (Fracarolli, 2021d; Quiñones-Ruiz et al., 2016). Consequently, GIs can be essential instruments for market decommodification and agri-food production (Galtier et al., 2008, 2013; Hinrichs, 2000).

As a former Portuguese colony and occupant of this shaded site between center and periphery, Brazil was tasked to be the "barn of the world" in a tropical environment favorable to food production. However, the country maintains a highly concentrated structure of lands due to the distribution of land and titles in a patrimonial way during the colonial period.

Brazil has gone through a process of intensification of land use and has advanced into the countryside (Barretto et al., 2013; Lapola et al., 2014). However, even the reform process favored the agrarian elite due to the market character interpreting the dominant classes' productivity and property rights (Escher, 2020; Wolford, 2005). Public policies for family farming favor market stability and farmers' autonomy (Wittman & Blesh, 2017). Also, the sector has development potential despite structural institutional constraints (Medina et al., 2015). However, State endorsement of the agribusiness sector (Vale, 2018) can compromise it. Likewise, policies oriented toward solving land problems are recommended due to the inability of the market to self-regulate and strengthen family farming (Grisa & Porto, 2015; Lapola et al., 2014).

The current process still accentuates the commoditization (Robles, 2018; Sauer et al., 2018) of production and implies an increase in the price of land in the country (Sauer & Leite, 2013). Such a scenario corroborates the severe concentration of gross value production (GVP) of 85% on only 8% of rural establishments (Alves & Rocha, 2010).

In the last 20 years, the country has seen a contradictory relationship between the government, social movements, and rural elites, maintained only by the latter group in the present government (Escher, 2020; Sauer, 2019; Sauer et al., 2018). This scenario reinforces the maintenance of the structural orientation of institutions focused on rural areas in the country.

Thus, understanding how institutional instruments operate in the construction of agrarian systems is crucial to understanding the reasons for the success of certain

production chains. The analysis presented below will contribute to the understanding and propose possible paths for more sustainable development, environmentally, economically and socially, in the Brazilian context.

In Brazil, agricultural products or their derivatives are among the most significant volumes of the trade balance. In 2021, for example, of the total US$ 280.6 billion exported, soybeans, sugars and molasses, beef, soybean meal, poultry, cellulose, and unroasted coffee, among others, are among the main ones, along with iron ore and crude oil (Ministério da Economia, 2022).

According to data from the last Agricultural Census (IBGE, 2019), Brazil has 579.5 thousand agricultural establishments associated with cooperatives, which is equivalent to 11.4% of the country, including a significant regional disparity, despite the 67.3% increase from the 2006 census, those establishments correspond to only 70.5 million hectares or 20% of the area of all establishments. In time, 410 thousand of these establishments, or 71.2%, are family farms. This result is the concentration of collective productive arrangements among family farmers. However, it represents an insignificant area of the country.

This scenario impacts the type of agriculture and agrarian systems built in the country. For example, simpler agrarian systems tend to yield less diversity of products and markets, such as commodities with less human involvement. On the other hand, in constructing agri-food markets, it is possible to verify the high human involvement in specialized markets, such as the market for products with GI, in which human involvement is crucial for their development.

According to the World Intellectual Property Organization (WIPO), a GI "is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. In order to function as a GI, a sign must identify a product as originating in a given place." (World Intellectual Property Organization, 2021). The market for these products is built on complex agrarian relationships and influenced by institutions (Fracarolli, 2021a, 2021d).

For example, by prioritizing value chains in markets without added value, Brazil does not develop markets such as GI. For example, the number of GI registrations in Mercosur countries, which share historical similarities and value chains, is significantly lower than in EU countries (Fracarolli, 2021c, 2021b). Nevertheless, it is relevant to notice that wine and spirits are separated from other agri-food products due to different treatment in European legislation.

Table 1. Comparison of the number of GI products between European and South American countries.

Country	Agri-food GIs	Wines and Spirits GIs
Argentina [1] [2]	9	105
Brazil [3]	54	13
Portugal [4]	141	51
Italy [4]	313	560
France [4]	257	490
Spain [4]	200	160
Greece [4]	113	162
Poland [4]	34	2

[1] (Ministerio de Agricultura, Ganadería y Pesca, 2022)

[2] (Instituto Nacional de Vitivinicultura, 2018).

[3] (Instituto Nacional da Propriedade Industrial, 2022).

[4] (European Commission, 2022).

The table shows the difference in GIs registered between South American and European countries that stand out in this market. Despite the difference in area between the countries of the two continents, the numbers found in Europe vastly exceed those of South America. This fact represents the nature of the agrarian systems used in both regions. While the involvement of one side favors human involvement, the other prioritizes simplified agrarian systems that generate uniform and standardized products.

These results only represent the capacity and orientation of agrarian policy in developing different types of markets. Low involvement in collective production systems makes developing value-added markets that express cultural factors challenging.

6.3.4 Interrelationships and future challenges

The factors mentioned above, development, institutions and agri-food systems had transversal impacts. In coining the New Economic Geography, Krugman, for example, analyzed commercial phenomena from a regional perspective (Krugman, 1991a, 1991b). The author sought answers to economies of scale in regional and spatial dynamics and pointed to competitive advantages in regions that concentrate production (Krugman, 1991a, 1991b). In contrast, Krugman's proposal to approach international trade from a center-periphery structure focuses on economic aspects; this critical-sociological

proposal is based on institutional mechanisms. However, in the defined scope of the Brazilian agri-food market.

On the other hand, authors such as Williamson see the functioning of firms as a type of market (Williamson, 1981, 2002). The author analyzed information's influence on long-term contractual relationships' impact (Williamson, 1981, 2002). His approach coined the term New institutional economics. This new branch sought explanations for economic phenomena outside mainstream economics. The works of authors such as Williamson (1981, 2002), Coase (1937, 1960) and Ostrom (1990, 2012) demonstrate the influence of social, political, historical and cultural factors in the construction of the economy. In the present case, like Ostrom's approach, we approach through the historical-materialist dialectic the influence of colonization in constructing institutions that shape the Brazilian agri-food market. The author, mainly applied to environmental agendas, demonstrates the relevance of collective construction in public decision-making (Ostrom, 1990), the importance of institutional diversity (Ostrom, 2005) and the active participation of States in the functioning of markets (Ostrom, 2012), for example. Here, analogously, we try to demonstrate how the State participates in constructing this market based on the roots of national institutions.

These approaches lead us to raise questions about the resolution of the agrarian question in the country. Since institutions presumably act in constructing these markets, how do they affect the Brazilian scenario? The editorial of Agrarian South: Journal of Political Economy expressed the need and relevance of discussing the agrarian question from new perspectives ("The Agrarian Question: Past, Present and Future," 2012). If initially, it focused on the dichotomy of the transition between feudalism and socialist or capitalist modes of production, today, there are more profound questions. Thus, when considering the concept of "agrarian transition" established by Byres (1986), it is still necessary to analyze its impacts in the Brazilian case regarding more current issues beyond industrialization and production mode.

Still, the Brazilian agrarian transition must be analyzed in the light of capitalism as a country in the semi-periphery. Authors have already pointed to the relevance of analyzing classes in this context from the political economy perspective, considering political economy approaches and possible paths in the modern world (Bernstein, 1996, 2021; Byres, 1986; Goodman & Redclift, 1981). Along with these authors, some other works point expressly to the country and emphasize the topic's relevance from the local context as an unresolved issue (de Medeiros, 2007; Escher, 2020, 2021). Therefore, this context

claims for a multifactorial analysis of construction and institutional effects since there is a presumed influence.

6.4. Discussion and critique

The present work approached the process of construction of the Brazilian rural space. This institutionally oriented process favors specific productive groups focused on broad markets such as commodities. This model results from a historical process derived from the colonialism exercised in the country.

Thus, starting with the colonial period, we situate the rural scenario addressed by the authors mentioned above and then forward through the transformations in the republican period. Finally, we analyze the agrarian configuration in the country through the structure of institutions in favor of a development model and how this promotes political stability.

As previously discussed, Brazil based its economy on exploiting wood and sugar cane to benefit the European metropolis in the colonial period. The economy was strictly rural, in the form of a plantation, supported by slave labor. This form of production had a clear direction to benefit landholders in simplified agrarian systems, as discussed by Mazoyer and Roudart (2010) and Fracarolli (2021a).

In the following period, with the end of slavery, the monarchy and the country's independence, a new agrarian cycle began. However, as addressed by Prado Jr (2011), coffee and sugarcane remained with significant relevance. This historical moment, also portrayed by Buarque de Holanda (2015), is based on a weak economy, despotic elite, and authoritarian society.

This process was based on the metropolis' supply by exploiting the colony's labor and natural resources. Over time, there was a product substitution, but not the form of production. The successive exchanges of crops kept some constant.

The first constant concerns the nature of what is produced. Over time, all predominant crops are commodity-based. Whether wood, sugar cane, coffee or soybeans, they are all products that aim to be marked by undifferentiated products that can be marketed on a large scale.

The second is land use: In all prevailing production models, it was only possible if based on large portions of land, consolidating the interest of dominant groups.

The third refers to the precariousness of the workforce: sometimes an enslaved person, sometimes an immigrant in similar conditions and sometimes exploited through low remuneration, precarious conditions, mechanization and overexploitation.

The fourth is the lack of interest in industrialization. By prioritizing commodities and primary products, industrialization would become uninteresting. The collateral effect would be the transfer of the economic sector and the consequent involvement of other groups.

The fifth is in the orientation of production: By maintaining these production models, it is constant that these commodities are always destined for the foreign market. The destination of these products is outside the country, sold in more valued currencies, increasing the profit margin of these groups.

The sixth is the consolidation of the import/export relationship: Again, with the production of commodities and de-industrialization, the permanent relationship between the export of primary products and import of manufactured or technological products is sustained.

The seventh is the suppression of differentiated markets: In order for the above conditions to be maintained, it is necessary that more sustainable production models, with added value and destined for the domestic market, be suppressed. In this way, the development of the GI market is compromised to the interest of specific groups.

The argument supported by the authors (Buarque de Holanda, 2015; Faoro, 2021; Prado Jr, 2011) was based on the concentration of land in an elite that the political control of the country related to power relations derived from this same relationship with rural production, a pillar of the national economy.

Thus, the formation of this rural elite based on low-complexity models has consequences. On the one hand, they compromise the economy, development and domestic supply of value-added products. Nevertheless, on the other hand, it favors privileged minority groups, perpetuating a paradoxical social structure for its national interests.

Regarding family farming, it is a more complex agrarian segment capable of entering into another logic of the agricultural market and not necessarily obeying the Fordist logic of production and including social factors. On the one hand, there is a process of accentuation of commoditization (Robles, 2018; Sauer et al., 2018). On the other hand, family farming is an alternative to rural concentration, favoring the stability of markets (Wittman & Blesh, 2017). However, the State's action through public policies is necessary

(Grisa & Porto, 2015; Lapola et al., 2014). Also, when highly intensified monocultures and traditional systems with an environmental bias are opposed (Belletti et al., 2015), family farming can serve as a driving force for differentiated GI markets.

So, the arguments of Santos (1970), Frank (1967, 1969, 1979) and Furtado (2000) remain valid. They concluded that relegating industrialization compromises development. Also, the penetration of foreign capital keeps underdevelopment on the periphery, sustaining the development of the capitalist center.

Another aspect is that the main Brazilian exports are agricultural commodities. Complementarily, it is related to the same commodity chains among the main imported products in financial volume. This way, the structure of large-scale production is perpetuated to benefit a relatively small portion of farmers. These few supply the foreign market, strengthening foreign industries to the detriment of a productive domestic sector. Therefore, it reduces financing capacity and links to an incompatible form of production. This condition implies a paradox of rural development. Moreover, by conditioning the country's structures aimed at specific groups to provide institutional stability, it constrains development since the most favored production model is incompatible with the benefit and interests of the majority of society and the support of economic, social and environmental sustainability.

The Brazilian agri-food market compromises the development of more specialized markets focused on value chains by orienting itself to this production model. Table 1 corroborates findings in other studies and reflects a model that privileges the individual over the collective. As a result, Brazil, like other countries with a similar colonial history and production structure, despite having more extensive agricultural areas, does not have a comparable performance with European countries, for example (Table 1). Therefore, the criticism developed by Prado Jr (2011) remains present when pointing out that the country's structure is essential to explaining economic and social contradictions and inequalities.

At this point, Acemoglu's theoretical construction on the impact of differentiating the formation of institutions due to differences in colonization responds to the explanation of the construction of Brazilian agricultural markets. Above all, the understandings of Faoro (2021) and Buarque de Holanda (2015) remain current when they characterize the country as politically oriented capitalism in favor of a rural elite that compromises its industrialization and sustainable development. According to both, Brazilian colonization structured institutions to benefit this rural elite, whose legacy remains. If initially a

monoculture model was adopted to bring sugar and wood to the metropolis, later, it started to strengthen coffee production. Currently, the country diversifies products into other commodities destined for the foreign market, still benefiting an elite to the detriment of the majority, creating a situation of path dependence established in the colonization framework.

Finally, the GI market development is compromised in Brazil due to the maintenance of the interest and privilege of specific groups. This relationship consolidates the country in a peripheral position, perpetuating the supply of capitalism's center, either industrialized or value-added agri-foodstuffs.

Thus, the country's agrarian question remains unresolved and its relative position in the world capitalist order is indisputably through structural change in agricultural production systems and agrarian ordering. For this, public policies aimed at adding value are essential and recommendable, however insufficient. Nevertheless, national and global sustainable development cannot be based solely on the economy and move away from sustainable production models in the environment and society. It is at this point that GI products can promote greater sustainability.

In this sense, institutions consolidate the maintenance of archaic systems that harm sustainable national development. Thus, it characterizes the causal relationship between colonization and the commitment of the GI agri-food market.

6.5. Conclusions

Finally, this work investigated the effects produced by institutional structures on the development of Brazilian agri-food markets. The present work's development confirms that institutions are oriented towards economic development, prioritizing value chains that specific benefit groups, such as commodity producers, to the detriment of the development of GI agri-food products.

The first and most significant is the confirmation of the hypothesis suggested at the beginning of the work. Structuring institutions involved with the Brazilian agri-food sector benefits a rural elite by producing commodities at the expense of value chains capable of more significant social, environmental and economic development. This occurs through the maintenance of archaic agrarian systems.

Other conclusions from the present work refer to the path dependence from Brazilian colonization, based on constants along time in the agrarian scenario. Likewise, privileging

this production model compromises the development of others, such as GIs and industrialization. Furthermore, the promotion and creation of public policies aimed at changing the productive structure of the sector, privileging collective aspects and greater human involvement, can bring benefits to the country's social development without economic losses.

Thus, Brazilian development, and more specifically the development of the agri-food sector, is embedded in the construction of national institutions. This way, it tends to accentuate social inequality and compromise the improvement of the quality of life of the majority of the population. This embeddedness of institutions in the market is significantly due to the colonization process that allowed the formation of a rural elite, holder of power. Nevertheless, it is still significantly relevant in the constitution of political and economic power. As a result, this agri-food market construction creates a paradox of rural development among the institutions.

Without prejudice, the study of mechanisms of action of institutions, the involvement of actors in these, in-depth approaches to value chains, and econometrics of the factors addressed in this work can bring tremendous value to expanding the understanding of institutions and colonization processes. Likewise, studying the same scope in other countries with a similar history to Brazil may contribute scientifically and to developing policies capable of bringing social improvement.

In the main conclusion, the present country's agri-food market institutions directly relate the path dependence to colonization. Therefore, maintaining the agrarian and productive systems of the agri-food markets will also keep Brazil from the systemic capitalist center. Consequently, the structural transformation of the predominant productive system for value chains such as GI can promote the country's sustainable development without compromising the economic sector.

Ultimately, this work does not intend to exhaust the topic but to add to the discussion about the impacts of historical-sociological formation on construction and impacts on the Brazilian agri-food market. Thus, it is limited to an exercise of panoramic nature, and future complementary empirical works can add that. Moreover, work on localized realities can express possible different realities depending on the country's diversity. However, we hope this work can be relevant for academics in understanding Brazilian and South American reality. Furthermore, this can be helpful for commercial groups in understanding the reality and awareness of the consequences of actions in the Brazilian

market and for the political and bureaucratic class in conducting public policies suited to the intended future.

6.6 References

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, *91*(5), 1369–1401. https://doi.org/10.1257/aer.91.5.1369

Acemoglu, D., & Robinson, J. A. (2006). *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.

Acemoğlu, D., & Robinson, J. A. (2016). Paths to inclusive political institutions. In J. Eloranta, E. Golson, A. Markevich, & N. Wolf (Eds.), *Economic History of Warfare and State Formation. Studies in Economic History* (pp. 3–50). Springer.

Acemoglu, D., Ticchi, D., & Vindigni, A. (2011). Emergence and Persistence of Inefficient States. *Journal of the European Economic Association*, *9*(2), 177–208. https://doi.org/10.1111/j.1542-4774.2010.01008.x

Alves, E. de A., & Rocha, D. de P. (2010). Ganhar tempo é possível? In *A Agricultura Brasileira Desempenho, Desafios e Perspectivas* (pp. 275–293). Ipea.

Alvesson, M., & Spicer, A. (2019). Neo-Institutional Theory and Organization Studies: A Mid-Life Crisis? *Organization Studies*, *40*(2), 199–218. https://doi.org/10.1177/0170840618772610

Barretto, A. G. O. P., Berndes, G., Sparovek, G., & Wirsenius, S. (2013). Agricultural intensification in Brazil and its effects on land-use patterns: An analysis of the 1975–2006 period. *Global Change Biology*, *19*(6), 1804–1815. https://doi.org/10.1111/gcb.12174

Belletti, G., Marescotti, A., Sanz-Cañada, J., & Vakoufaris, H. (2015). Linking protection of geographical indications to the environment: Evidence from the European Union olive-oil sector. *Land Use Policy*, *48*, 94–106. https://doi.org/10.1016/j.landusepol.2015.05.003

Bernstein, H. (1996). Agrarian questions then and now. *The Journal of Peasant Studies*, *24*(1–2), 22–59. https://doi.org/10.1080/03066159608438630

Bernstein, H. (2021). *Class Dynamics of Agrarian Change* (pp. 1–152). Practical Action Publishing. https://doi.org/10.3362/9781788532174

Bonanno, A., & Constance, D. H. (2001). Globalization, Fordism, and Post-Fordism in agriculture and food: A critical review of the literature. *Culture & Agriculture*, *23*(2), 1–18.

Bowen, S. (2010). Embedding local places in global spaces: Geographical indications as a territorial development strategy. *Rural Sociology*, *75*(2), 209–243. Scopus. https://doi.org/10.1111/j.1549-0831.2009.00007.x

Buarque de Holanda, S. (2015). *Raízes do Brasil*. Companhia das Letras. https://www.companhiadasletras.com.br/detalhe.php?codigo=13938

Byres, T. J. (1986). The Agrarian Question, Forms of Capitalist Agrarian Transition and the State: An Essay with Reference to Asia. *Social Scientist*, *14*(11/12), 3–67. JSTOR. https://doi.org/10.2307/3517162

Cardoso, F. H., & Faletto, E. (2021). *Dependency and Development in Latin America*. University of California Press. https://doi.org/10.1525/9780520342118

Clapp, J., & Isakson, S. R. (2018). *Harvests: Financialization, Food and Agriculture* (pp. 1–168). Practical Action Publishing. https://doi.org/10.3362/9781780449920

Coase, R. H. (1937). The Nature of the Firm. *Economica*, *4*(16), 386–405. https://doi.org/10.1111/j.1468-0335.1937.tb00002.x

Coase, R. H. (1960). The Problem of Social Cost. *The Journal of Law & Economics*, *3*, 1–44. JSTOR.

Daniel, G. R. (2022). Multiracial Identities in the United States: Towards the Brazilian or South African Paths? *Social Sciences*, *11*(5). https://doi.org/10.3390/socsci11050204

de Medeiros, L. S. (2007). Social movements and the experience of market-led agrarian reform in Brazil. *Third World Quarterly*, *28*(8), 1501–1518. https://doi.org/10.1080/01436590701637359

Du Pisani, J. A. (2006). Sustainable development – historical roots of the concept. *Environmental Sciences*, *3*(2), 83–96. https://doi.org/10.1080/15693430600688831

Emmanuel, A. (1972). *Unequal Exchange: A Study of the Imperialism of Trade*. Monthly Review Press.

Escher, F. (2020). Class Dynamics of Rural Transformation in Brazil: A Critical Assessment of the Current Agrarian Debate. *Agrarian South: Journal of Political Economy*, *9*(2), 144–170. https://doi.org/10.1177/2277976020928832

Escher, F. (2021). BRICS varieties of capitalism and food regime reordering: A comparative institutional analysis. *Journal of Agrarian Change*, *21*(1), 46–70. https://doi.org/10.1111/joac.12385

European Commission. (2022, March 24). *EAmbrosia*. The EU Geographical Indications Register. https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/

Faoro, R. (2021). *Os donos do poder: Formação do patronato político brasileiro*. Companhia das Letras.

Fligstein, N. (1996). Markets as Politics: A Political-Cultural Approach to Market Institutions. *American Sociological Review*, *61*(4), 656. https://doi.org/10.2307/2096398

Fligstein, N. (2008). Markets as Politics: A Political-Cultural Approach to Market Institutions. In *Readings in Economic Sociology* (pp. 197–218). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470755679.ch11

Fligstein, N., & Dauter, L. (2007). The Sociology of Markets. *Annual Review of Sociology*, *33*(1), 105–128. https://doi.org/10.1146/annurev.soc.33.040406.131736

Fracarolli, G. S. (2021a). Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges. *Land*, *10*(11). https://doi.org/10.3390/land10111182

Fracarolli, G. S. (2021b). Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves. *Agronomy*, *11*(12). https://doi.org/10.3390/agronomy11122385

Fracarolli, G. S. (2021c). Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union. *Economies*, *9*(2). https://doi.org/10.3390/economies9020084

Fracarolli, G. S. (2021d). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063476

Frank, A. G. (1967). *Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil*. Monthly Review. https://monthlyreview.org/product/capitalism_and_underdevelopment_in_latin_america/

Frank, A. G. (1969). *Latin America: Underdevelopment or Revolution*. Monthly Review. https://monthlyreview.org/product/latin_america/

Frank, A. G. (1979). *Dependent Accumulation and Underdevelopment*. Monthly Review. https://monthlyreview.org/product/dependent_accumulation_and_underdevelopment/

Furtado, C. (2000). Desenvolvimento e subdesenvolvimento. In *Cinqüenta anos de pensamento na CEPAL* (Ricardo Bielschowsky, Vol. 1). Record.

Galtier, F., Belletti, G., & Marescotti, A. (2008). Are Geographical Indications a way to" decommodify" the coffee market? *S.l.*, 15 p.

Galtier, F., Belletti, G., & Marescotti, A. (2013). Factors Constraining Building Effective and Fair Geographical Indications for Coffee: Insights from a Dominican Case Study. *Development Policy Review*, *31*(5), 597–615. https://doi.org/10.1111/dpr.12027

Garnett T., Appleby M. C., Balmford A., Bateman I. J., Benton T. G., Bloomer P., Burlingame B., Dawkins M., Dolan L., Fraser D., Herrero M., Hoffmann I., Smith P., Thornton P. K., Toulmin C., Vermeulen S. J., & Godfray H. C. J. (2013).

Sustainable Intensification in Agriculture: Premises and Policies. *Science*, *341*(6141), 33–34. https://doi.org/10.1126/science.1234485

Giménez, E. H., & Shattuck, A. (2011). Food crises, food regimes and food movements: Rumblings of reform or tides of transformation? *Journal of Peasant Studies*, *38*(1), 109–144. Scopus. https://doi.org/10.1080/03066150.2010.538578

Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., Pretty, J., Robinson, S., Thomas, S. M., & Toulmin, C. (2010). Food security: The challenge of feeding 9 billion people. *Science*, *327*(5967), 812–818. Scopus. https://doi.org/10.1126/science.1185383

Goodman, D., & Redclift, M. (1981). From peasant to proletarian: Capitalist development and agrarian transitions. *From Peasant to Proletarian: Capitalist Development and Agrarian Transitions.* https://www.scopus.com/inward/record.uri?eid=2-s2.0-84973002308&partnerID=40&md5=e4ac8a3ca26e8c9aac5fd0369bfd1f61

Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, *91*(3), 481–510. https://doi.org/10.1086/228311

Grisa, C., & Porto, S. I. (2015). Dez anos de PAA: As contribuições e os desafios para o desenvolvimento rural. In *Políticas públicas de desenvolvimento rural no Brasil.* (pp. 155–180). Editora da UFRGS.

Hinrichs, C. C. (2000). Embeddedness and local food systems: Notes on two types of direct agricultural market. *Journal of Rural Studies*, *16*(3), 295–303. Scopus. https://doi.org/10.1016/S0743-0167(99)00063-7

IBGE, I. B. de G. e E. (2019). *Censo Agropecuário 2017* (Instituto Brasileiro de Geografi a e Estatística-IBGE). https://censoagro2017.ibge.gov.br//resultados-censo-agro-2017.html

Instituto Nacional da Propriedade Industrial. (2022, March 24). *Pedidos de Indicação Geográfica no Brasil*. Pedidos de Indicação Geográfica no Brasil. https://www.gov.br/inpi/pt-br/servicos/indicacoes-geograficas/pedidos-de-indicacao-geografica-no-brasil

Instituto Nacional de Vitivinicultura. (2018, September 13). *Protección del Origen—Indicaciones Geográficas (IG) y Denominación de Origen Controlada (DOC)*. Argentina.gob.ar. https://www.argentina.gob.ar/inv/proteccion-del-origen

Krugman, P. (1991a). Increasing Returns and Economic Geography. *Journal of Political Economy*, *99*(3), 483–499. https://doi.org/10.1086/261763

Krugman, P. (1991b). *Geography and Trade*. MIT Press.

Lambin, E. F., Meyfroidt, P., Rueda, X., Blackman, A., Börner, J., Cerutti, P. O., Dietsch, T., Jungmann, L., Lamarque, P., Lister, J., Walker, N. F., & Wunder, S. (2014). Effectiveness and synergies of policy instruments for land use governance in tropical regions. *Global Environmental Change*, *28*(1), 129–140. Scopus. https://doi.org/10.1016/j.gloenvcha.2014.06.007

Lapola, D. M., Martinelli, L. A., Peres, C. A., Ometto, J. P. H. B., Ferreira, M. E., Nobre, C. A., Aguiar, A. P. D., Bustamante, M. M. C., Cardoso, M. F., Costa, M. H., Joly, C. A., Leite, C. C., Moutinho, P., Sampaio, G., Strassburg, B. B. N., & Vieira, I. C. G. (2014). Pervasive transition of the Brazilian land-use system. *Nature Climate Change*, *4*(1), 27–35. https://doi.org/10.1038/nclimate2056

Lawson, J. (2022). Mounting Turbulence in Neoliberal Globalization: Political Economy, Populist Discourse, and Policy in Alberta, Canada. *Social Sciences*, *11*(5). https://doi.org/10.3390/socsci11050221

Lounsbury, M., & Crumley, E. T. (2007). New Practice Creation: An Institutional Perspective on Innovation. *Organization Studies*, *28*(7), 993–1012. https://doi.org/10.1177/0170840607078111

Martinez, S., Hand, M., da Pra, M., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Lohr, L., Low, S., & Newman, C. (2010). Local food systems: Concepts, impacts, and issues. In *Local Food Systems: Backgr. And Issues* (pp. 1–75). Nova Science Publishers, Inc.; Scopus. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85029651743&partnerID=40&md5=565ae38c0a68903505be77f0ea7cf005

Mazoyer, M., & Roudart, L. (2010). *História das agriculturas no mundo* (1st ed.). Editora UNESP. http://editoraunesp.com.br/catalogo/9788571399945,historia-das-agriculturas-no-mundo

Medina, G., Almeida, C., Novaes, E., Godar, J., & Pokorny, B. (2015). Development Conditions for Family Farming: Lessons From Brazil. *World Development*, *74*, 386–396. https://doi.org/10.1016/j.worlddev.2015.05.023

Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. *Cogent Social Sciences*, *5*(1), 1653531. https://doi.org/10.1080/23311886.2019.1653531

Meyfroidt, P., de Bremond, A., Ryan, C. M., Archer, E., Aspinall, R., Chhabra, A., Camara, G., Corbera, E., DeFries, R., Díaz, S., Dong, J., Ellis, E. C., Erb, K.-H., Fisher, J. A., Garrett, R. D., Golubiewski, N. E., Grau, H. R., Grove, J. M., Haberl, H., … zu Ermgassen, E. K. H. J. (2022). Ten facts about land systems for sustainability. *Proceedings of the National Academy of Sciences*, *119*(7), e2109217118. https://doi.org/10.1073/pnas.2109217118

Ministério da Economia. (2022, March 22). *Comex Stat—ComexVis*. http://comexstat.mdic.gov.br/pt/comex-vis

Ministerio de Agricultura, Ganadería y Pesca. (2022, March 24). *Dirección Nacional de Alimentos y Bebidas—Indicación geográfica y denominación de origen*. http://www.alimentosargentinos.gob.ar/HomeAlimentos/IGeo/productos_reconocidos.php

North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, *5*(1), 97–112. https://doi.org/10.1257/jep.5.1.97

Ostrom, E. (2012). *The Future of the Commons: Beyond Market Failure and Government Regulations: Beyond Market Failure & Government Regulations*. Institute of Economic Affairs.

Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. https://doi.org/10.1017/CBO9780511807763

Ostrom, E. (2005). *Understanding Institutional Diversity* (Illustrated edition). Princeton University Press.

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, *34*(5 Pt 2), 1189–1208. PubMed.

Peet, R., & Hartwick, E. (2015). *Theories of Development, Third Edition: Contentions, Arguments, Alternatives* (3rd Edition). Guilford Publications.

Petras, J. (1981). Dependency and World System Theory: A Critique and New Directions. *Latin American Perspectives*, *8*(3/4), 148–155. JSTOR.

Pierre, J., & Rothstein, B. (2011). Reinventing Weber: The role of institutions in creating social trust. *The Ashgate Research Companion to New Public Management*, 405–416.

Prado Jr, C. (2011). *Formação do Brasil contemporâneo* (1ª edição). Companhia das Letras.

Quiñones-Ruiz, X. F., Penker, M., Belletti, G., Marescotti, A., Scaramuzzi, S., Barzini, E., Pircher, M., Leitgeb, F., & Samper-Gartner, L. F. (2016). Insights into the black box of collective efforts for the registration of Geographical Indications. *Land Use Policy*, *57*, 103–116. https://doi.org/10.1016/j.landusepol.2016.05.021

Raynolds, L. T. (2000). Re-embedding global agriculture: The international organic and fair trade movements. *Agriculture and Human Values*, *17*(3), 297–309. Scopus. https://doi.org/10.1023/a:1007608805843

Raynolds, L. T. (2018). Forging new local/global links through fair trade agro-food networks. In *Glob., Localis. And Sustain. Livelihoods* (pp. 57–68). Taylor and Francis Inc.; Scopus. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070818510&partnerID=40&md5=bfdcd18ffa41113569ddea20ac8ca866

Renard, M.-C. (2003). Fair trade: Quality, market and conventions. *Journal of Rural Studies*, *19*(1), 87–96. Scopus. https://doi.org/10.1016/S0743-0167(02)00051-7

Robles, W. (2018). Revisiting Agrarian Reform in Brazil, 1985–2016. *Journal of Developing Societies*, *34*(1), 1–34. https://doi.org/10.1177/0169796X17749658

Santos, T. D. (1970). The Structure of Dependence. *The American Economic Review*, *60*(2), 231–236. JSTOR.

Sauer, S. (2019). Rural Brazil during the Lula Administrations: Agreements with Agribusiness and Disputes in Agrarian Policies. *Latin American Perspectives*, *46*(4), 103–121. https://doi.org/10.1177/0094582X16685176

Sauer, S., Balestro, M. V., & Schneider, S. (2018). The ambiguous stance of Brazil as a regional power: Piloting a course between commodity-based surpluses and national development. *Globalizations*, *15*(1), 32–55. https://doi.org/10.1080/14747731.2017.1400232

Sauer, S., & Leite, S. P. (2013). Agrarian structure, foreign investment in land, and land prices in Brazil. In *The New Enclosures: Critical Perspectives on Corporate Land Deals* (pp. 267–292). Routledge.

Scott, W. R. (2013). *Institutions and Organizations: Ideas, Interests, and Identities*. SAGE Publications.

Smelser, N. J., & Swedberg, R. (2010). *The handbook of economic sociology*. Princeton university press.

So, A. Y. (1990). *Social Change and Development: Modernization, Dependency and World-System Theories*. SAGE.

Steiner, P. (2017). A Plea for a Weberian Economic Sociology. *Archives Européennes de Sociologie*, *58*(3), 545.

Tavares, M. da C., Oliveira, F. de, Fiori, J. L., Guimarães, J., Nabuco, M. R., Bacelar, T., & Cano, W. (2000). *Celso Furtado e o Brasil*. Fundação Perseu Abramo. http://bibliotecadigital.fpabramo.org.br/xmlui/handle/123456789/281

The Agrarian Question: Past, Present and Future. (2012). *Agrarian South: Journal of Political Economy*, *1*(1), 1–10. https://doi.org/10.1177/227797601200100101

Vale, H. F. do. (2018). Local-global linkages in the food regime: Global history and the internationalization of Brazilian agribusiness. *Revista Brasileira de Política Internacional*, *61*. https://doi.org/10.1590/0034-7329201800110

Wallerstein, I. (2011). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century* (Vol. 1). Univ of California Press.

Wesz Junior, V. J. (2022). Soybean production in Paraguay: Agribusiness, economic change and agrarian transformations. *Journal of Agrarian Change*, *22*(2), 317–340. https://doi.org/10.1111/joac.12436

Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology*, *87*(3), 548–577.

Williamson, O. E. (2002). The Theory of the Firm as Governance Structure: From Choice to Contract. *The Journal of Economic Perspectives*, *16*(3), 171–195. JSTOR.

Wittman, H., & Blesh, J. (2017). Food Sovereignty and Fome Zero: Connecting Public Food Procurement Programmes to Sustainable Rural Development in Brazil. *Journal of Agrarian Change*, *17*(1), 81–105. https://doi.org/10.1111/joac.12131

Wolford, W. (2005). Agrarian Moral Economies and Neoliberalism in Brazil: Competing Worldviews and the State in the Struggle for Land. *Environment and Planning A: Economy and Space*, *37*(2), 241–261. https://doi.org/10.1068/a3745

World Intellectual Property Organization. (2021, June 29). *Geographical Indications*. https://www.wipo.int/geo_indications/en/index.html

Zald, M. N., & Lounsbury, M. (2010). The Wizards of Oz: Towards an Institutional Approach to Elites, Expertise and Command Posts. *Organization Studies*, *31*(7), 963–996. https://doi.org/10.1177/0170840610373201

7. EU-Mercosur Agreement: The challenges of the geographical indication market

Abstract: The agreement between the European Union and Mercosur aims to improve trade between the blocs and impacts in different areas, including the market for products with a Geographical Indication. The negotiations resulted in a broad spectrum protection document. The agreement advances by establishing recognition parameters and recognizing a relatively large number of products from both. However, by not establishing differentiated measures to affect the market, it is subject to accentuating the imbalance in the market for these products.

Keywords: Geographical Indication; Institutions; European Union; Mercosur; Inequalities.

7.1. Introduction

The market construction of Geographical Indication (GI) products has developed asymmetrically across the globe. Mercosur and the European Union (EU) represent clear examples of such differences. The number of registered products between both is expressive (Fracarolli, 2021c). Nevertheless, there is still much to investigate how these differences progressively changed and shaped this market.

In 2019, the EU and Mercosur announced a broad and ambitious agreement. However, despite the signature, the agreement is not under operation yet. As so, GIs are also part of its themes. However, how will it impact this market between both economic blocs? The present work aims to analyze the agreement regarding GIs to answer that question. To do so, this work will use economic sociology as a theoretical foundation from an institutional perspective of the agreement's construction and its impacts on both blocs. Understanding markets as a result of social constructions is crucial to understanding the dynamics of how it develops (Fligstein & Dauter, 2007). Observing it not as a sequence of strictly rational decisions but due to its development context allows for a more in-depth and concrete analysis of reality.

The present agreement between the economic blocs may benefit the countries involved, producers, consumers, industry and commerce. However, institutions must coordinate strategies toward mutual public policies development to promote this type of product and market. In that case, the agreement may result in instabilities and increased inequality. Moreover, since the relationship between GI legal structures and public goods depends

on the context in which they are inserted (Belletti et al., 2017), their construction plays a crucial role in market development.

7.2. Methods

This work aims to qualitatively analyze the terms of the free trade agreement concluded between the EU and Mercosur (European Commission, 2021) regarding GI issues and developmental impact in both regions in the light of the institutions. To this end, priority will be given to the previous documents of the free trade agreement between the EU and Mercosur resulting from the discussions in light of sustainable development. Therefore, it will analyze the documents in general terms regarding the intentions and the specific chapters. Furthermore, to help, it will compare the GI records between the blocks and compare them with the existing literature.

Finally, after analyzing the introductory text of the agreement, it will discuss the implications of the agreement according to the cited literature on GIs, development and economic sociology, focusing on the embeddedness between institutions and the market.

7.3. The agreement's results

7.3.1. Overview

The first aspect to be addressed refers to the fundamental principles of the agreement. Thus, we must observe the purposes for which the document was established. In the document resulting from the meetings, 17 initial items are set, which the agreement will deal with. In general terms, the agreement points out (European Commission, 2021) in item 1, "Trade in goods," a broad liberalization of trade barriers between the two blocs. After the transition period, the document states that the EU and Mercosur will liberalize 92% and 91% of their imports. This item also highlights access to industrial and agricultural goods markets (European Commission, 2021).

Considering the trade balance between both blocs, it is noteworthy that in 2021, 77.1% of EU imports were of primary products. On the other hand, 82.8% of the value exported to Mercosur was manufactured (European Commission, 2022). However, the agreement highlights beef, sugar and soy.

The text highlights that the negotiations resulted in substantive results regarding the GIs. The agreement includes the protection of 355 European GIs and 220 Mercosur GIs.

These numbers represent a small fraction of registered European GIs and almost all of the existing GIs in Mercosur (European Commission, 2021).

However, despite the agreement recognizing a relatively significant number of European GIs and almost all of Mercosur, these numbers are not reflected on supermarket shelves and are partially dominated by brands (Fracarolli, 2021a, 2021b).

7.3.2. Specifics

In the chapter and specific article on the subject, the agreement aims to protect GIs already established broadly in the protective sense in an egalitarian way. The agreement also aims at cooperation actions between the parties in order to curb the use of allusive terms such as "type," "style," or similar and includes three annexes referring to the legislation of each of the members, a listing of the GIs mentioned above and non-agricultural GIs from Brazil and Paraguay (European Commission, 2021).

The text also reinforces the commitment to prevent the GIs already recognized from falling into generic use (European Commission, 2021). Furthermore, there is a commitment on the parties to guarantee the effective application of the registrations and prevent the use by brands, considering the necessary exceptions.

7.3.3. Trade and sustainable development

Concerning sustainable development, also addressed in the agreement, the chapter above clarifies that it aims to enhance the integration of sustainable development between the parties. For a better definition, it lists several international agreements such as Agenda 21 and the United Nations document "Transforming our World: the 2030 Agenda for Sustainable Development" (European Commission, 2021). In this way, it reinforces the concept of sustainable development by integrating the social and environmental dimensions and the economic ones.

The document makes clear the intention to achieve the Sustainable Development Goals and collaborate on this through measures and policies considering the different realities and levels of development among the members (European Commission, 2021). To this end, it makes explicit intentions of working together to address climate change, biodiversity and forest management, among others. Thus, it shows that these rules and intentions guide all trade between the parties.

7.4. Discussion and conclusion

For this agreement to be analyzed and properly discussed, it is crucial that the factors addressed are done together and not as the sum of the parts. The agreement in question is an essential framework for cooperation between the parties and brings relevant advances to trade development between the members. However, it also has imperfections that can be improved.

By establishing standardized and uniform rules and intentions between the parties, the agreement not only contradicts itself when it claims to consider the differences between the members but also fosters inequality. In its present form, the agreement does not consider the differences between institutions (Fracarolli, 2021c), promotes production models incompatible with sustainable development, does not effectively propose ways to mitigate trade differences in GIs, and maintains non-tariff protectionism (Josling, 2006), but embedded in institutions. Thus, without effective public policies, the agreement in this form tends to accentuate the inequalities between the blocks, mainly about the GIs.

7.5. References

Belletti, G., Marescotti, A., & Touzard, J.-M. (2017). Geographical indications, public goods, and sustainable development: The roles of actors' strategies and public policies. World Development, 98, 45–57.

European Commission. (2021). EU-Mercosur trade agreement: The Agreement in Principle and its texts. Available online: https://trade.ec.europa.eu/doclib/press/index.cfm?id=2048 (accessed on 26 March 2022).

European Commission. (2022). EU-Mercosur Trade in goods with Mercosur. Available online: https://ec.europa.eu/trade/policy/countries-and-regions/regions/mercosur/ (accessed on 01 April 2022).

Fligstein, N., and Dauter, L. (2007). The Sociology of Markets. Annual Review of Sociology, 33(1), 105–128. ttps://doi.org/10.1146/annurev.soc.33.040406.131736

Fracarolli, G. S. (2021a). Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves. Agronomy, 11(12). https://doi.org/10.3390/agronomy11122385

Fracarolli, G. S. (2021b). Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union. Economies, 9(2). https://doi.org/10.3390/economies9020084

Fracarolli, G. S. (2021c). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. Sustainability, 13(6). https://doi.org/10.3390/su13063476

Josling, T. (2006). The War on Terroir: Geographical Indications as a Transatlantic Trade Conflict. Journal of Agricultural Economics, 57(3), 337–363. https://doi.org/10.1111/j.1477-9552.2006.00075.x

Török, Á., Jantyik, L., Maró, Z. M., & Moir, H. V. J. (2020). Understanding the Real-World Impact of Geographical Indications: A Critical Review of the Empirical Economic Literature. Sustainability, 12(22). https://doi.org/10.3390/su12229434

8. Conclusion

Finally, a series of considerations and closings must be made. During the development of this thesis, experiments, tests and theoretical discussions were carried out. As a result, five scientific articles and a short paper were published, given the work carried out. In each chapter, compose a thread about the construction and development of the agri-food market of GIs between the EU and Mercosur blocs. The published articles that make up this thesis rely on practical and theoretical, quantitative and qualitative approaches in order to provide elements of a broad spectrum for a better understanding of this market without the intention of exhausting it. During this work, it was possible to observe:

1. How the construction of different agri-food production systems develops and forms different markets; (Fracarolli, 2021a)
2. How the difference between institutions is shown in the regulatory framework and is crucial in the development of markets; (Fracarolli, 2021d)
3. How, despite the differences in the number of GIs between Mercosur and the EU, only an insignificant portion is represented in retail electronic commerce and how certain groups dominate the market and condition their interests; (Fracarolli, 2021c)
4. How certain brands are relevant to e-commerce for products with GI and form different bands of influence; (Fracarolli, 2021b)
5. How, in a specific case like Brazil, the historical process of formation of institutions shapes the present market of agri-food products and can compromise the development of culturally linked foods, such as GIs.
6. Still, in the practical case, as the recent agreement between Mercosur and the European Union affects the market for products with GI between both, it can lead to imbalances and favor actors already in a situation of advantage.

This work mentioned above resulted from the effort spent on the articles and will be further explained below. Each of the works that make up the component chapters of this thesis addresses steps that build a logical line of thought and market construction. Thus, each conclusion will be explained and followed by a possible closing in front of the works presented.

8.1 Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges

The first article of this thesis, "Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges" (Fracarolli, 2021a), theoretically discusses the embedding of institutions, supported by critical theory. The work aims to relate the complexity of agrarian systems in the formation of markets and the respective construction of institutions through the dominance of interest groups. Based on this correlation, the article discusses and articulates how critical theory addresses these issues and draws conclusions from this perspective.

After analysis and discussion, the article concludes that products such as GI are imbued with cultural values derived from favorable environmental conditions and due know-how. Such conditions are only possible in complex agrarian systems. Furthermore, as agrarian systems become more complex, so does the number of products (and consequently the market) of this kind. On the other hand, where less complex agrarian systems predominate, these products are compromised in the long term.

In addition, it concludes that the formation of the elite is decisive for developing the complexity of agri-food systems, being more plural where the elite develops in the industrial sector. In the same way, colonization is decisive in forming institutions (Acemoglu et al., 2001, 2011; Acemoğlu & Robinson, 2016) and contributes to maintaining nation-states in positions related to Wallerstein's theory (Wallerstein, 2011).

Finally, according to Gramscian theory (Gramsci, 1971), institutions tend to reproduce their interests where colonization favored the formation of rural oligarchic elites. Thus, colonization in an exploratory way favors the formation of these rural elites capable of influencing institutions in the maintenance of less complex agrarian systems and, therefore, less favorable to the emergence of products with added cultural value, such as GI.

8.2 The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU

In the second work included in this thesis, "The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU" (Fracarolli, 2021d), the approach turns to how the orientation of institutions is manifested in their bureaucratic performance and the agreements and treaties signed.

This work sought to compare both economic blocks in terms of the legal framework to analyze how institutions operate in the market for agri-food products with GI. The results showed that it is immense despite not being able to condition only on the number of product registrations between the blocks.

The results showed that the EU's legal structure is politically, culturally and commercially favorable to the bloc concerning other structures, such as Mercosur, supported by Fligstein's theoretical development (Fligstein, 2008a). Still, under the author's argument, the pioneering spirit of establishing rules and the consequent strengthening of institutions tends to build a "conception of control" to be sought (Fligstein, 1993, 2008b; Fligstein & Calder, 2015).

The work concludes that the standardization and uniformization of the legal norms and understanding among the bloc members. Although signing protocols and treaties is an important step, it does not guarantee the development of the GI market. However, the establishment of stricter rules tends to strengthen standardization and institutions.

Other points in the article are also highlighted. The establishment of promotional and development measures tends to strengthen the institutional mechanisms of this market beyond merely protective measures. There is a trend towards trade facilitation when institutions act cooperatively and dedicatedly.

In short, the last conclusion of the article is very relevant to the functioning of this market. The construction of more reliable, standardized and functional institutions reflects the trustworthiness of the system and the involvement of producers and consumers in the market.

8.3 Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union

In the third and fourth papers presented in this work, "Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union" (Fracarolli, 2021c), we make a series of analyzes regarding the scenario revealed about the GIs found in the electronic retail of countries from both blocks. The findings were approached from different perspectives. In the third paper, from the perspective of the GIs found and their origin. In the fourth paper, from the perspective of the brands

found in the GIs. The two articles complement each other in the analysis of the products found.

The third paper presented a significantly more active trade in agri-food products with GI in the EU than in Mercosur countries. The result was skewed in both absolute and relative numbers. However, both markets differ in quantity, variety and representativeness.

The results demonstrate that the institutional mechanisms adopted by the EU strengthen the development of the market for products with GI. However, the embeddedness relationship between interest groups and the State creates more favorable situations for certain productive groups. However, the measures adopted are mainly beneficial to producers of this type of product.

Furthermore, the study concluded that the EU has a greater representation of products than Mercosur, despite few European GIs being identified in South American retail. No South American products with GI have been identified in European markets. Above all, the asymmetry between the markets of both blocks proved to be an indicator resulting from the institutional structure between them. However, other asymmetries are identified between the different sectors of agri-food production.

Finally, the article explains the market asymmetries between the two economic blocks and the respective asymmetries between productive segments. The number of GIs found compared to the number of existing records is insignificant in both. The highlights of representativeness of categories reside in cheeses, meats and fruits, vegetables and cereals. Furthermore, the number of GIs and products with GIs from outside the bloc is significantly relevant in Mercosur and irrelevant in the EU.

8.4 Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves

The fourth paper of this thesis, "Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves" (Fracarolli, 2021b), as previously mentioned, deals with the analysis of the survey carried out in the electronic retail markets of Mercosur and EU countries from the perspective of the brands included in agri-food products with GI. For an appropriate analysis, the article used the Field Theory.

The investigation found the formation of fields of influence between the brands selling these products. A first, Upper Band, where GIs are inserted in markets in countries other than their own and consolidated in another economic bloc in significant brands or supermarkets; A second, Intermediate Band, made of products with GIs marketed nationally: And a Lower Band, where GIs do not appear in the markets and constitute the majority.

The Lower Band is formed by actors that no longer exist, cannot enter the market, or exist only in a strictly local scope. Here, the article makes one of the most relevant findings of the research: The fact that some products in some specific categories are successful creates what we call the Mirage Principle, where the other actors see success linked to this modality of intellectual property, but it is restricted to a relatively insignificant amount in the existing universe.

Furthermore, the article explores, in conclusion, the relevance of supermarkets' own brands present in products with GI. It notes that it constitutes a significant portion of the products sold and is more relevant among the existing markets in the European bloc compared to the South American one.

Finally, the text concludes that the State has its interests and relationships embedded in this market, therefore co-responsible for market asymmetries, as an actor that formulates and regulates the structure that protects this type of intellectual property. Therefore, despite promoting the development of sectors that need intervention, it also lacks adjustments for better functioning.

8.5. Institutional path dependence: A critical analysis of Geographical Indication in Brazil.

In the fifth paper, a constituent of Chapter 6 of this thesis, there is a study of the specific case of Brazil, as a member of Mercosur, from a theoretical perspective. To carry out this study, a historical-materialist sociological analysis was used to be consistent with the thesis.

To delve deeper into the Brazilian case, the study starts from general sociology assumptions about development and institutions. Then, it presents the specific case of Brazil, illustrating the historical formation of the construction of the country's rural sector. From there, together with the formation of agrarian structures and respective

complexities, the cause and effect relationship of colonization for this market in the country is assembled.

From the critical analysis carried out, the investigation concludes the direct influence of Portuguese colonization in Brazil in the formation of institutions centered on rural elites that shaped the country's agrarian scenario, orienting to low-complexity productive systems, to commodity markets and directed to specific groups. Therefore, by influencing this construction, the formation and development of markets for value-added products from more complex agrarian systems are hampered.

In line with previous works that demonstrate the influence of colonization on the development of countries mainly in the southern hemisphere (Acemoglu et al., 2001, 2005; Acemoglu & Johnson, 2005), this article demonstrates through dialectics the impact also on the construction of agri-food markets. In Wallerstein's theory (Wallerstein, 2011), products with GI thus portray the most genuine figure of market construction and structural perpetuation relative to these products concerning their position in the world capitalist system.

8.6. EU-Mercosur Agreement: The challenges of the geographical indication market

The short paper in question, "EU-Mercosur Agreement: The challenges of the geographical indication market," as it is a work done for an event and still under development, provides an analysis that allows for further discussions.

The short paper analyzes the trade agreement concluded between the EU and Mercosur blocs agri-food products with GI. For this, it uses the agreement documents regarding intentions and objectives and compares them with economic data from both blocs and existing literature.

Finally, it concludes that the agreement brings advances in regulation and improves trade and cooperation between the blocs. However, standardizing the rules between the parties not only contradicts itself but also promotes asymmetries and widens inequalities by fostering models incompatible with sustainable development. Thus, it maintains non-tariff barriers and needs compensatory public policies in order to mitigate these effects.

8.6. Final marks

Finally, this thesis aimed to address the issue of institutions in constructing and developing markets for agri-food products with Geographical Indication between the European Union and Mercosur. To accomplish this, tools, methodologies, and perspectives from economic sociology were employed in all chapters. The work represents the culmination of various articles produced, published, or in progress throughout the dedicated doctoral study of this market.

The findings throughout this study do not claim to exhaust the subject, but rather aim to contribute to the understanding of how this market is shaped by influences and mechanisms that extend beyond the mere exchange of goods. The research sheds light on the construction of this market through a socio-analytical lens, revealing the outcome of a social construction process rooted in the distinct cultural contexts of each region. In the European context, historical circumstances have fostered an agrarian complexity that facilitated the emergence of products with Geographical Indication. Conversely, in South America, particularly within the Mercosur region, the colonization process and the socio-political structure have limited the development of complex agrarian systems capable of producing such goods.

The trajectory followed throughout this research, employing theoretical discussions to critically analyze the contextual formation of this market, examining documents pertaining to the formal aspects of market institutionalization, and employing empirical methods to capture the situational dynamics of the market, has provided insights and conclusions in each chapter. Moreover, this investigation has illuminated the fact that the construction and stabilization of this market are the outcomes of distinct historical processes, which have had asymmetric impacts on the observed economic blocs.

Hence, this pronounced asymmetry between the blocs is a striking manifestation of market failure, exerting asymmetric impacts on institutions, producers, markets, and states both endogenously and exogenously. Furthermore, this market failure disproportionately affects the more vulnerable and fragile segments, rendering them susceptible to the vicissitudes stemming from the political-economic pressures that shape and define institutional frameworks.

Thus, the initially proposed objectives have been successfully achieved in examining the underlying causes of the observed disparities. It becomes evident that the

answers to this inquiry lie within the realm of institutional construction, which serves as the driving force, catalyst, and regulatory mechanism for the market. Consequently, the pivotal role of institutional influence in shaping the asymmetrical development of markets for agri-food products with Geographical Indication is underscored.

It is worth noting that, by acknowledging its limitations, this study also paves the way for future research in the field. By focusing on investigations in the online retail sector, it creates room for future inquiries to be conducted in other physical or specific markets. Similarly, regionalization of the research can shed light on the particular differences present within each geographic subdivision.

Furthermore, it is crucial to investigate the processes that have shaped European agrarian structure. Equally important is the need for further investigation into the colonizing effects on the Americas in institution-building, as well as their lasting impacts.

The findings of this study aim to contribute to the reduction of asymmetries and ensuing inequalities stemming from institutional actions within the current market. Consequently, it is recommended that institutions undergo substantial transformations to promote the inclusion of marginalized stakeholders, fostering the development of increased agrarian complexity and the creation of more sophisticated markets capable of producing culturally significant agri-food products. Such changes should also prioritize environmental justice and aim to mitigate the impacts of capitalism on the market.

8.7. References

Acemoglu, D., & Johnson, S. (2005). Unbundling Institutions. *Journal of Political Economy*, *113*(5), 949–995. https://doi.org/10.1086/432166

Acemoglu, D., Johnson, S., & Robinson, J. (2005). The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth. *American Economic Review*, *95*(3), 546–579. https://doi.org/10.1257/0002828054201305

Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, *91*(5), 1369–1401. https://doi.org/10.1257/aer.91.5.1369

Fligstein, N. (1993). *The transformation of corporate control*. Harvard University Press.

Fligstein, N. (2008a). *Euroclash: The EU, European identity, and the future of Europe*. Oxford University Press on Demand.

Fligstein, N. (2008b). Markets as Politics: A Political-Cultural Approach to Market Institutions. In *Readings in Economic Sociology* (pp. 197–218). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470755679.ch11

Fligstein, N., & Calder, R. (2015). Architecture of Markets. In *Emerging Trends in the Social and Behavioral Sciences* (pp. 1–14). American Cancer Society. https://doi.org/10.1002/9781118900772.etrds0014

Fracarolli, G. S. (2021a). Global Markets, Local Issues: The Hegemonic Process of Agri-Food Construction to Present Challenges. *Land*, *10*(11). https://doi.org/10.3390/land10111182

Fracarolli, G. S. (2021b). Mapping Online Geographical Indication: Agri-Food Markets on E-Retail Shelves. *Agronomy*, *11*(12). https://doi.org/10.3390/agronomy11122385

Fracarolli, G. S. (2021c). Mapping Online Geographical Indication: Agrifood Products on E-Commerce Shelves of Mercosur and the European Union. *Economies*, *9*(2). https://doi.org/10.3390/economies9020084

Fracarolli, G. S. (2021d). The Effects of Institutional Measures: Geographical Indication in Mercosur and the EU. *Sustainability*, *13*(6). https://doi.org/10.3390/su13063476

Gramsci, A. (1971). *Selections from the Prison Notebooks* (Q. Hoare & G. N. Smith, Eds.; Reprint, 1989 edition). International Publishers Co.

Wallerstein, I. (2011). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century* (Vol. 1). Univ of California Press.

Annex

Specifications table

Subject	*Social Sciences*
Specific subject area	*Survey of Geographical Indication agri-food products in e-retail supermarkets*
Type of data	Table
How the data were acquired	*The survey was done on the website of 28 supermarkets towards finding all geographical indication agri-food products displayed and classified by their register and category.*
Data format	Raw Analyzed Filtered
Description of data collection	*The survey collected data from 4 supermarkets of 11 countries, seven from the EU and four from Mercosur. The data collection considered all GI registered products in either of the systems in force of the regions involved. All products were classified according to their registration and category. In addition, Mercosur's products were classified according to the EU's categorization of products to be standard and comparable.* *All data were separated by country.* *The data collection also counted the number of brands and if there were supermarket brands displayed.* *Only agri-food products were considered. Wines, aromatized wines and spirits were not considered.* *If the website required a delivery address, the city center of the country's most populated city was used.*
Data source location	*Data was collected from the following websites: Provide the information requested below. If any of the bullet points do not apply, please delete them:* *France:* • *Auchan, retrieved on https://www.auchan.fr/* • *Carrefour, retrieved on https://www.carrefour.fr/* • *Intermarché, retrieved on https://www.intermarche.com/* • *E.Leclerc, retrieved on https://www.e.leclerc/* *Germany:* • *Edeka, retrieved on https://www.edeka.de/* • *Rewe, retrieved on https://www.rewe.de/* • *Real, retrieved on https://www.real-markt.de/* • *Kaufland, retrieved on https://www.kaufland.de/*

Greece:

- *Alfa-Beta Vassilopoulos, retrieved on https://www.ab.gr/*
- *Sklavenitis, retrieved on https://www.sklavenitis.gr/*
- *Masoutis, retrieved on https://www.masoutis.gr/*
- *My Market, retrieved on https://www.mymarket.gr/el-GR/home*

Italy:

- *Crai, retrieved on https://www.craispesaonline.it/*
- *Conad, retrieved on https://www.conad.it/*
- *Carrefour, retrieved on https://www.carrefour.it/spesa-online/*
- *Coop, retrieved on https://www.e-coop.it/*

Poland:

- *Auchan, retrieved on https://www.auchan.pl/pl*
- *Eurocash, retrieved on https://eurocash.pl/*
- *Carrefour, retrieved on https://www.carrefour.pl/*
- *Polski Koszyk, retrieved on https://polskikoszyk.pl/*

Portugal:

- *Continente, retrieved on https://www.continente.pt/*
- *Pingo Doce, retrieved on https://www.pingodoce.pt/*
- *Auchan, retrieved on https://www.auchan.pt/*
- *Spar, retrieved on https://www.spar.pt/*

Spain:

- *Alcampo, retrieved on https://www.alcampo.es/compra-online/*
- *Dia, retrieved on https://www.dia.es/compra-online/*
- *Carrefour, retrieved on https://www.carrefour.es/*
- *Mercadona, retrieved on https://tienda.mercadona.es/*

Argentina:

- *Coto, retrieved on https://www.coto.com.ar/*
- *Dia, retrieved on https://diaonline.supermercadosdia.com.ar/*
- *Walmart, retrieved on https://www.walmart.com.ar/*
- *Carrefour, retrieved on https://www.carrefour.com.ar/*

Brazil:

- *Pão de Açúcar, retrieved on https://www.paodeacucar.com/*
- *Extra, retrieved on https://www.clubeextra.com.br/*
- *Carrefour, retrieved on https://www.carrefour.com.br/*
- *Sonda, retrieved on https://www.sondadelivery.com.br/*

Paraguay:

- *Salemma, retrieved on https://www.salemmaonline.com.py/*
- *Gran Vía, retrieved on https://granviaelid.com.py/*
- *Superseis, retrieved on https://www.superseis.com.py/default.aspx*
- *Casa Rica, retrieved on https://www.casarica.com.py/*

	Uruguay: • *Disco, retrieved on https://www.disco.com.uy/* • *Devoto, retrieved on https://www.devoto.com.uy/* • *Géant, retrieved on https://www.geant.com.uy/* • *Tienda Inglesa, retrieved on https://www.tiendainglesa.com.uy/*
Data considerations	*The supermarkets on the tables were converted to numbers and do not necessarily correspond to the order disposed here due to ethical reasons.*
Period of data collection	*All data collected was done from January 2nd and February 28th of 2021.*

*Category	
1.1	Fresh meat
1.2	Meat products
1.3	Cheeses
1.4	Other products of animal origin
1.5	Oils and fats
1.6	Fruits, vegetables and cereals fresh or processed
1.7	Fresh fish, mollusks and crustaceans and derived
1.8	Others such as spices
2.1	Beers
2.2	Chocolate and derived
2.3	Bread, pastry, cakes and alike
2.4	Beverages from plant extracts
2.5	Pasta
2.6	Salt
2.7	Natural gums and resins
2.8	Mustard paste
2.9	Hay
2.10	Essential oils
2.11	Cork
2.12	Cochineal
2.13	Flowers and ornamental plants
2.14	Cotton
2.15	Wool
2.16	Wicker
2.17	Scutched flax
2.18	Leather
2.19	Fur
2.20	Feather

**Type	
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
TSG	Traditional Specialities Guaranteed
DO	Denominação de Origem (Designation of Origin)
IP	Indicação de Procedência (Indication of Source)
IG	Indicación Geográfica (Geographical Indication)

France

Category*	Origin	GI Product	Type**	Supermarket	Number of product	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.1	France	Dinde de Bresse	PDO	#2	1	1	6	462	1	No	1	3	83
		Poularde de Bresse	PDO	#2	4	4			2	No	2		
		Volailles de Loué	PGI	#2	1	1			1	No	1		
1.2	France	Boudin blanc de Rethel	PGI	#2	1	1	35		1	No	1	15	
		Canard à foie gras du Sud-Ouest	PGI	#1	6	13			2	Yes	7		
				#2	5				3	Yes			
				#4	2				2	No			
		Jambon d'Auvergne	PGI	#2	1	1			1	Yes	1		
		Jambon de Bayonne	PGI	#1	5	8			2	No	4		
				#2	3				2	Yes			
		Saucisse de Montbéliard	PGI	#1	1	1			1	Yes	1		
		Saucisse de Morteau	PGI	#1	1	2			1	Yes	2		
				#2	1				1	No			
		Saucisson de l'Ardèche	PGI	#3	1	1			1	Yes	1		
		Saucisson sec d'Auvergne	PGI	#3	2	2			1	Yes	1		
	Italy	Prosciutto di Parma	PDO	#1	1	2			1	No	2		
				#2	1				1	Yes			
		Brosaola della Valtellina	PGI	#2	1	1			1	No	1		
	Spain	Jamón Serrano	TSG	#1	2	3			2	Yes	3		
				#3	1				1	No			
1.3	France	Abondance	PDO	#1	1	2	267		1	Yes	2	48	
				#2	1				1	No			
		Beaufort	PDO	#1	2	3			1	Yes	2		
				#3	1				1	Yes			
		Bleu d'Auvergne	PDO	#1	1	4			1	Yes	3		
				#2	2				1	No			
				#3	1				1	Yes			
		Bleu de Causses	PDO	#1	1	1			1	Yes	1		
		Brie de Meaux	PDO	#2	1	3			1	No	3		
				#3	1				1	Yes			
				#4	1				1	Yes			
		Brillat-Savarin	PGI	#1	1	3			1	Yes	3		
				#2	1				1	No			
				#4	1				1	Yes			
		Brousse du Rove	PDO	#2	1	1			1	No	1		
		Camembert de Normandie	PDO	#1	3	13			3	Yes	10		
				#2	4				3	Yes			
				#3	5				5	Yes			
				#4	1				1	Yes			
		Cantal	PDO	#1	2	9			1	Yes	6		
				#2	3				2	Yes			
				#3	3				2	Yes			
				#4	1				1	Yes			
		Chabichou du Poitou	PDO	#2	1	2			1	No	2		
				#3	1				1	No			
		Chaource	PDO	#1	2	5			1	Yes	3		
				#2	1				1	Yes			
				#3	1				0	No			
				#4	1				1	Yes			
		Charolais	PDO	#2	1	1			1	No	1		
		Comté	PDO	#1	17	36			4	Yes	7		
				#2	12				5	Yes			
				#3	5				2	No			
				#4	2				1	No			
		Crottin de Chavignol	PDO	#1	1	5			1	Yes	5		
				#2	2				2	Yes			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Emmental de Savoie	PGI	#1	1	2			1	Yes	2		
				#4	1				1	Yes			
		Époisses	PDO	#1	2	5			2	Yes	5		
				#2	2				2	No			
				#4	1				1	Yes			
		Fourme d'Ambert	PDO	#2	3	4			2	Yes	3		
				#3	1				1	Yes			
		Gruyère	PGI	#2	1	3			1	No	2		
				#3	2				1	Yes			
		Livarot	PDO	#1	1	2			1	No	2		
				#4	1				1	Yes			
		Marcoilles	PDO	#1	1	3			1	Yes	2		
				#2	2				1	No			
		Mont d'Or	PDO	#1	2	4			2	Yes	4		
				#2	2				2	Yes			
		Morbier	PDO	#1	2	3			1	Yes	2		
				#2	1				1	No			
		Munster	PDO	#1	1	4			1	Yes	4		
				#2	2				2	Yes			
				#3	1				1	No			
		Neufchâtel	PDO	#1	1	4			0	No	3		
				#2	2				2	No			
				#3	1				1	Yes			
		Ossau-Iraty	PDO	#1	2	6			2	Yes	4		
				#2	2				2	No			
				#4	2				2	Yes			
		Picodon	PDO	#3	1	1			1	Yes	1		
		Pont-l'Évêque	PDO	#1	2	6			2	Yes	6		
				#2	1				1	No			
				#3	2				2	Yes			
				#4	1				1	Yes			
		Pouligny-Saint-Pierre	PDO	#4	1	1			1	Yes	1		
		Reblochon	PDO	#1	2	5			2	Yes	4		
				#2	3				2	No			
		Rocamadour	PDO	#1	1	5			1	Yes	5		
				#2	2				2	Yes			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Roquefort	PDO	#1	8	24			3	Yes	9		
				#2	5				3	Yes			
				#3	4				2	No			
				#4	7				4	Yes			
		Sainte-Maure de Touraine	PDO	#1	3	6			2	Yes	5		
				#2	1				1	No			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Saint-Marcellin	PGI	#2	2	3			2	Yes	3		
				#3	1				1	Yes			
		Saint-Nectaire	PDO	#1	2	6			1	Yes	4		
				#2	2				1	No			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Selles-sur-Cher	PDO	#2	1	2			1	No	2		
				#4	1				1	Yes			
		Tomme de Savoie	PGI	#1	1	4			1	Yes	3		
				#2	3				2	No			
		Tomme des Pyrénées	PGI	#1	1	5			1	Yes	4		
				#2	2				1	Yes			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Valençay	PDO	#1	1	2			1	No	2		
				#4	1				1	Yes			
	Greece	Feta	PDO	#1	2	9			1	Yes	7		
				#2	4				3	Yes			
				#3	3				3	Yes			
	Italy	Gorgonzola	PDO	#1	1	6			1	Yes	5		
				#2	1				1	Yes			
				#3	2				1	Yes			
				#4	2				2	No			
		Grana Padano	PDO	#1	5	7			2	Yes	3		
				#2	2				1	Yes			
		Mozzarella di Bufala Campana	PDO	#1	4	12			2	Yes	8		
				#2	6				4	Yes			
				#3	2				1	Yes			
		Parmigiano Reggiano	PDO	#1	5	23			2	Yes	8		
				#2	14				5	Yes			
				#3	3				2	Yes			
				#4	1				1	No			
		Pecorino Romano	PDO	#1	1	3			1	No	3		
				#2	1				1	Yes			
				#3	1				1	Yes			
	Netherlands	Edam Holland	PGI	#2	1	2			0	No	1		
				#3	1				1	No			
		Gouda Holland	PGI	#1	2	7			1	Yes	4		
				#2	3				2	Yes			
				#3	2				2	No			
1.4	France	Crème d'Isigny	PDO	#1	5	10	13		2	Yes	5	5	
				#2	3				2	No			
				#3	1				1	Yes			
				#4	1				1	Yes			
		Crème de Bresse	PDO	#1	1	3			1	Yes	3		
				#2	1				1	No			
				#4	1				1	Yes			
1.5	France	Beurre Charentes-Poitou	PDO	#1	3	7	19		2	No	4	10	
				#2	1				1	No			
				#3	2				2	No			
				#4	1				1	Yes			
		Beurre d'Isigny	PDO	#1	2	5			2	Yes	3		
				#2	2				2	No			
				#3	1				1	No			
		Huile d'olive de la vallée des Baux-de-Provence	PDO	#1	1	1			1	Yes	1		
		Huile d'olive de Nyons	PDO	#1	1	3			1	Yes	2		
				#2	2				1	No			
	Greece	Sitia Lasithiou Kritis	PDO	#1	2	2			1	Yes	1		
	Italy	Toscano	PGI	#1	1	1			1	Yes	1		
1.6	France	Ail de la Drôme	PGI	#2	3	3	77		1	No	1	10	
		Ail fumé d'Arleux	PGI	#2	1	1			1	Yes	1		
		Ail violet de Cadours	PDO	#2	1	1			1	No	1		
		Châtaigne d'Ardèche	PDO	#2	4	4			1	No	1		
		Clémentine de Corse	PGI	#1	1	1			0	No	0		
		Farine de châtaigne corse	PDO	#2	3	3			1	No	1		
		Figue de Solliès	PDO	#2	4	4			1	No	1		
		Noisette de Cervione	PGI	#2	4	4			1	No	1		
		Pruneaux d'Agen	PGI	#1	1	8			1	No	3		
				#2	7				2	No			
		Riz de Camargue	PGI	#1	2	23			2	Yes	6		
				#2	21				4	No			
	Greece	Korinthiaki Stafida Vostitsa	PDO	#2	4	4			1	No	1		
	Italy	Nocciola di Giffoni	PGI	#2	4	4			1	No	1		
		Nocciola Piemonte	PGI	#2	4	4			1	No	1		
		Nocciola Romana	PDO	#2	5	5			1	No	1		
		Avellana de Reus	PDO	#2	3	3			1	No	1		
	Spain	Espárrago de Navarra	PGI	#2	1	1			1	No	1		
		Pasas de Málaga	PDO	#2	4	4			1	No	1		
1.8	France	Cidre de Bretagne	PGI	#3	2	2	24		2	No	2	14	
		Piment d'Espelette	PDO	#1	2	7			2	Yes	4		
				#2	4				1	No			
				#3	1				1	Yes			
		Thym de Provence	PGI	#2	6	6			1	No	1		
	Italy	Aceto Balsamico di Modena	PGI	#1	2	9			2	No	6		
				#2	6				4	No			
				#3	1				1	No			
	Cambodia	Poivre de Kampot	PGI	#2	12	12	12		2	No	2		
2.5	France	Pâtes d'Alsace	PGI	#2	4	4	4		2	Yes	2	2	
2.6	France	Sel de Guérande	PGI	#2	4	5	5		2	No	3	3	
				#3	1				1	Yes			

Germany

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Germany	Nürnberger Bratwürste	PGI	#1	1	7	46	174	1	Yes	3	12	43
				#2	1				1	Yes			
				#4	5				1	Yes			
		Schwarzwälder Schinken	PGI	#1	1	7			1	Yes	6		
				#2	4				4	Yes			
				#4	2				1	Yes			
		Thüringer Leberwurst	PGI	#1	1	1			1	No	1		
		Thüringer Rostbratwurst	PGI	#1	1	13			1	Yes	5		
				#2	2				1	No			
				#4	10				3	Yes			
		Thüringer Rotwurst	PGI	#1	1	1			0	No	0		
	Austria	Tiroler Speck	PGI	#4	1	1			1	Yes	1		
	Italy	Bresaola della Valtellina	PGI	#4	1	1			1	Yes	1		
		Mortadella Bologna	PGI	#1	1	2			1	No	2		
				#4	1				1	Yes			
		Prosciutto di Parma	PDO	#1	1	2			1	No	2		
				#4	1				1	Yes			
		Prosciutto di San Daniele	PDO	#4	1	1			1	Yes	1		
	Spain	Jamón Serrano	TSG	#1	4	10			2	Yes	4		
				#2	1				1	No			
				#4	5				1	Yes			
1.3	Austria	Tiroler Bergkäse	PDO	#2	1	1	103		1	Yes	1	24	
	Denmark	Esrom	PGI	#1	1	2			1	No	1		
				#4	1				1	No			
	France	Brie de Meaux	PDO	#1	1	1			0	No	0		
		Camembert de Normandie	PDO	#1	4	4			2	No	2		
		Comté	PDO	#1	1	1			0	No	0		
		Munster	PDO	#4	1	1			1	No	1		
		Roquefort	PDO	#1	2	3			1	No	1		
				#2	1				0	No			
		Tomme de Savoie	PGI	#1	1	1			1	No	1		
	Greece	Feta	PDO	#1	2	9			2	Yes	9		
				#2	5				5	Yes			
				#4	2				2	Yes			
	Italy	Gorgonzola	PDO	#1	1	6			1	No	2		
				#2	3				2	No			
				#4	2				2	Yes			
		Grana Padano	PDO	#1	5	12			4	Yes	4		
				#2	5				1	No			
				#4	2				1	Yes			
		Mozzarella	TSG	#1	7	17			4	Yes	7		
				#2	4				3	Yes			
				#4	6				2	Yes			
		Mozzarella di Bufala Campana	PDO	#1	1	4			1	No	2		
				#2	1				0	No			
				#4	2				1	Yes			
		Parmigiano Reggiano	PDO	#1	3	12			2	No	5		
				#2	5				3	No			
				#4	4				1	Yes			
		Pecorino Romano	PDO	#1	1	3			0	No	1		
				#2	1				0	No			
				#4	1				1	Yes			
	Netherlands	Gouda Holland	PGI	#1	3	15			2	Yes	5		
				#2	7				3	No			
				#4	5				2	Yes			
		Noord-Hollandse Gouda	PDO	#1	1	1			1	No	1		
	Spain	Queso Manchego	PDO	#1	1	10			1	No	5		
				#2	9				4	No			
1.4	Germany	Obazda	PGI	#1	2	3	3		1	No	1	1	
				#3	1				1	No			
1.5	Greece	Vorios Mylopotamos Rethymnis Kr	PDO	#4	2	2	5		1	No	1	3	
	Italy	Chianti Classico	PDO	#4	1	1			1	No	1		
		Riviera Ligure	PDO	#4	1	1			1	No	1		
		Terra di Bari	PDO	#4	1	1			1	Yes	1		
1.6	Germany	Bayerischer Meerrettich	PGI	#4	2	2	7		1	No	1	5	
	Greece	Elia Kalamatas	PDO	#4	5	5			4	Yes	4		
1.8	Italy	Aceto Balsamico di Modena	PGI	#4	4	4	4		3	No	3	3	
2.3	Germany	Bayrischer Blockmalz	PGI	#3	1	1	4		1	No	1	3	
		Westfälischer Pumpernickel	PGI	#2	2	3			2	Yes	3		
				#4	1				1	No			
2.5	Germany	Schwäbische Spätzle	PGI	#2	2	2	2		1	No	1	1	

Greece

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Italy	Prosciutto di Parma	PDO	#4	1	1	3	283	1	No	1	2	87
		Jamón Serrano	TSG	#4	2	2			1	No	1		
1.3	Greece	Anevato	PDO	#1	1	1	229		1	No	1	67	
		Feta	PDO	#1	25	73			8	Yes	17		
				#2	24				8	No			
				#3	7				6	No			
				#4	17				4	No			
		Galotyri	PDO	#1	1	2			1	Yes	2		
				#2	1				1	No			
		Graviera Kritis	PDO	#1	2	6			1	Yes	5		
				#2	2				2	No			
				#3	1				1	No			
				#4	1				1	No			
		Graviera Naxou	PDO	#1	1	7			1	Yes	3		
				#2	1				1	No			
				#3	2				1	No			
				#4	3				0	No			
		Kalathaki Limnou	PDO	#2	1	2			1	No	1		
				#4	1				0	No			
		Kasseri	PDO	#1	4	24			2	Yes	11		
				#2	6				5	No			
				#3	8				6	No			
				#4	6				4	No			
		Katiki Domokou	PDO	#1	1	4			0	No	2		
				#2	1				1	No			
				#3	1				1	No			
				#4	1				1	No			
		Kefalograviera	PDO	#1	6	15			3	Yes	6		
				#2	5				4	No			
				#3	2				2	No			
				#4	2				1	No			
		Kopanisti	PDO	#1	1	2			0	No	1		
				#3	1				1	No			
		Ladotyri Mytilinis	PDO	#1	1	4			0	No	1		
				#2	1				1	No			
				#3	1				0	No			
				#4	1				1	No			
		Manouri	PDO	#2	1	3			1	No	3		
				#3	2				2	No			
		San Michali	PDO	#2	1	1			1	No	1		
		Xynomyzithra Kritis	PDO	#2	1	1			1	No	1		
	Denmark	Danablu	PGI	#1	1	2			1	No	1		
				#3	1				1	No			
		Havarti	PGI	#1	4	8			2	No	2		
				#3	3				1	No			
				#4	1				1	No			
	France	Brie de Meaux	PDO	#1	1	1			1	No	1		
		Camembert de Normandie	PDO	#1	4	4			3	No	3		
		Comté	PDO	#1	1	1			1	No	1		
		Emmental français est-central	PGI	#1	2	2			2	No	2		
		Salers	PDO	#1	1	1			0	No	0		
		Livarot	PDO	#1	1	1			0	No	0		
		Munster	PDO	#1	1	1			0	No	0		
		Pont-l'Évêque	PDO	#1	1	1			1	No	1		
		Roquefort	PDO	#1	1	5			1	No	4		
				#2	3				3	No			
				#3	1				1	No			
	Ireland	Imokilly Regato	PDO	#1	2	2			1	No	1		
	Italy	Gorgonzola	PDO	#1	1	4			1	No	3		
				#2	2				2	No			
				#4	1				0	No			
		Grana Padano	PDO	#1	2	7			1	Yes	5		
				#2	2				1	No			
				#3	1				1	No			
				#4	2				2	No			
		Mozzarella	TSG	#1	7	15			5	Yes	7		
				#3	4				4	No			
				#4	4				2	No			
		Mozzarella di Bufala Campana	PDO	#1	2	3			1	No	2		
				#4	1				1	No			
		Parmigiano Reggiano	PDO	#1	8	14			2	Yes	5		
				#3	5				2	No			
				#4	1				1	No			
		Pecorino Romano	PDO	#3	1	3			1	No	2		
				#4	2				1	No			
		Provolone Valpadana	PDO	#1	1	1			1	No	1		
	Netherlands	Gouda Holland	PGI	#1	7	8			3	Yes	3		
				#2	1				0	No			
	United Kingdom	Blue Stilton cheese	PDO	#1	3	5	6		1	No	1		
				#2	2				1	No			
		West Country farmhouse Cheddar cheese	PDO	#1	1	1			1	No	1		
1.5	Greece	Exeretiko Partheno Eleolado Selino Kritis	PDO	#3	2	2	11		1	No	1	6	
		Kalamata	PDO	#1	1	1			1	No	1		
		Kolymvari Chanion Kritis	PDO	#1	4	4			2	Yes	2		
		Olympia	PGI	#3	1	1			1	No	1		
		Vorios Mylopotamos Rethymnis Kritis	PDO	#3	2	2			1	No	1		
		Exeretiko partheno eleolado Trizinia	PDO	#3	1	1			1	No	1		
1.6	Greece	Fasolia (plake megalosperma) Prespon Florin	PGI	#2	1	1	26		1	No	1	14	
		Fasolia Gigantes – Elefantes Kastorias	PGI	#2	1	2			1	No	2		
				#3	1				1	No			
		Fasolia Gigantes Elefantes Prespon Florinas	PGI	#1	1	1			1	Yes	1		
		Fasolia Kattavias Rodou	PGI	#1	1	1			1	Yes	1		
		Fasolia Vanilies Feneou	PGI	#1	1	1			1	Yes	1		
		Mandarini Chiou	PGI	#1	1	1			0	No	0		
		Mila Delicious Pilafa de Tripoli	PDO	#2	1	1			0	No	0		
		Mila Zagoras Piliou	PDO	#1	1	5			1	No	1		
				#2	1				1	No			
				#3	3				1	No			
		Patata Kato Nevrokopiou	PGI	#2	1	3			0	No	2		
				#3	2				2	No			
		Patata Naxou	PGI	#1	1	1			1	Yes	1		
		Portokalia Maleme Chanion Kritis	PDO	#1	1	2			1	No	2		
				#2	1				1	No			
		Rodi Ermionis	PDO	#3	2	2			1	No	1		
		Throumpa Thassou	PDO	#1	2	4			2	Yes	4		
				#2	1				1	No			
				#4	1				1	No			
	France	Pruneaux d'Agen	PGI	#3	1	1			1	No	1		
1.8	Greece	Krokos Kozanis	PDO	#2	2	2	2		0	No	0	0	
2.3	Greece	Kritiko paximadi	PGI	#2	1	4	4		1	No	3	3	
				#3	2				2	No			
				#4	1				1	Yes			
2.7	Greece	Masticha Chiou	PDO	#2	2	2	2		0	No	0	0	

Italy

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.1	Italy	Agnello di Sardegna	PGI	#2	1	1	1		0	No	0	0	
1.2	Italy	Salamini italiani alla cacciatora	PDO	#1	1	2	67		1	Yes	2	22	
				#2	1				1	Yes			
		Prosciutto di Parma	PDO	#1	2	4			1	Yes	2		
				#3	1				1	Yes			
				#4	1				1	Yes			
		Bresaola della Valtellina	PGI	#2	7	12			5	Yes	8		
				#4	5				5	Yes			
		Prosciutto Toscano	PDO	#1	1	5			1	No	3		
				#2	2				1	No			
				#3	2				2	No			
		Cotechino Modena	PGI	#1	1	4			1	Yes	3		
				#2	2				1	Yes			
				#4	1				1	No			
		Mortadella Bologna	PGI	#1	2	12			2	Yes	6		
				#2	7				2	Yes			
				#4	3				2	No			
		Speck Alto Adige	PGI	#1	2	9			2	Yes	7		
				#2	4				3	Yes			
				#4	3				3	Yes			
		Prosciutto di Norcia	PGI	#1	2	3			2	No	3		
				#2	1				1	No			
		Prosciutto di Modena	PDO	#1	1	2			1	No	2		
				#4	1				1	Yes			
		Prosciutto di San Daniele	PDO	#1	3	4			1	No	2		
				#4	1				1	No			
		Prosciutto Amatriciano	PGI	#2	2	3			0	No	1		
				#4	1				1	No			
		Finocchiona	PGI	#2	1	1			1	No	1		
		Salame Felino	PGI	#2	1	2			1	No	2		
				#4	1				1	Yes			
		Coppa Piacentina	PDO	#3	1	2			1	No	2		
				#4	1				1	No			
		Salsiccia di Calabria	PDO	#3	1	1			1	No	1		
		Zampone Modena	PGI	#1	1	1			1	No	1		
1.3	Italy	Asiago	PDO	#1	1	6	130	330	0	No	3	18	65
				#2	2				1	Yes			
				#3	1				1	Yes			
				#4	2				1	Yes			
		Caciocavallo Silano	PDO	#2	2	2			2	No	2		
		Fiore Sardo	PDO	#2	1	1			1	No	1		
		Fontina	PDO	#2	1	1			1	No	1		
		Formaggio di Fossa di Sogliano	PDO	#2	1	1			1	No	1		
		Gorgonzola	PDO	#1	2	9			2	No	5		
				#2	3				2	No			
				#3	1				1	No			
				#4	3				3	Yes			
		Grana Padano	PDO	#1	2	25			2	Yes	9		
				#2	10				3	Yes			
				#3	8				3	Yes			
				#4	5				2	Yes			
		Montasio	PDO	#2	1	1			1	No	1		
		Mozzarella di Bufala Campana	PDO	#1	2	8			1	No	5		
				#2	1				1	No			
				#3	3				2	No			
				#4	2				2	Yes			
		Parmigiano Reggiano	PDO	#1	5	40			3	Yes	11		
				#2	11				5	Yes			
				#3	11				5	Yes			
				#4	13				2	Yes			
		Pecorino Romano	PDO	#2	6	10			5	Yes	8		
				#3	2				2	Yes			
				#4	2				1	Yes			
		Pecorino Sardo	PDO	#1	1	3			1	No	2		
				#2	2				1	No			
		Pecorino Siciliano	PDO	#2	1	1			0	No	0		
		Piave	PDO	#2	1	1			1	No	1		
		Provolone Valpadana	PDO	#2	3	7			1	No	3		
				#3	2				1	Yes			
				#4	2				1	Yes			
		Quartirolo Lombardo	PDO	#3	1	1			1	Yes	1		
		Ragusano	PDO	#3	1	1			1	No	1		
		Robiola di Roccaverano	PDO	#2	1	1			1	No	1		
		Squacquerone di Romagna	PDO	#2	1	2			1	No	2		
				#4	1				1	Yes			
		Taleggio	PDO	#2	1	2			1	No	2		
				#3	1				1	Yes			
	Greece	Feta	PDO	#1	1	7			1	Yes	5		
				#2	3				2	No			
				#3	2				2	Yes			
				#4	1				1	No			
1.4	Italy	Miele della Lunigiana	PDO	#1	1	1	1		0	No	0	0	
1.5	Italy	Canino	PDO	#4	1	1	8		1	No	1	6	
		Colline Pontine	PDO	#2	1	1			1	No	1		
		Terra di Bari	PDO	#4	1	1			1	Yes	1		
		Toscano	PGI	#1	1	3			1	Yes	3		
				#2	1				1	No			
				#4	1				1	Yes			
		Umbria	PDO	#2	1	1			1	No	1		
		Val di Mazara	PDO	#4	1	1			1	Yes	1		
1.6	Italy	Aglio Bianco Polesano	PDO	#2	1	1	31		1	Yes	1	11	
		Aglio di Voghiera	PDO	#2	1	1			1	No	1		
		Arancia di Ribera	PDO	#2	1	1			1	No	1		
		Cappero di Pantelleria	PGI	#2	1	1			1	No	1		
		Cipolla Rossa di Tropea Calabria	PGI	#2	1	2			1	No	2		
				#4	1				1	Yes			
		Clementine di Calabria	PGI	#4	1	1			1	No	1		
		Fagiolo Cannellino di Atina	PDO	#4	1	1			1	No	1		
		Fichi di Cosenza	PDO	#3	1	1			1	No	1		
		Lenticchia di Castelluccio di Norcia	PGI	#2	2	4			2	No	2		
				#4	2				2	No			
		Limone di Sorrento	PGI	#4	1	1			0	No	0		
		Mela Alto Adige	PGI	#2	1	2			1	No	2		
				#4	1				1	No			
		Mela Val di Non	PDO	#4	4	4			2	Yes	2		
		Nocciola di Giffoni	PGI	#2	1	1			1	No	1		
		Nocciola Piemonte	PGI	#2	1	1			1	No	1		
		Patata di Bologna	PDO	#2	1	1			1	No	1		
		Pera dell'Emilia Romagna	PGI	#1	1	1			1	No	1		
		Pomodoro di Pachino	PGI	#2	1	2			1	No	2		
				#4	1				1	Yes			
		Pomodoro San Marzano dell'Agro Sarnese-Nocerì	PDO	#2	1	2			1	No	2		
				#3	1				1	Yes			
		Radicchio Rosso di Treviso	PGI	#4	1	1			1	Yes	1		
		Radicchio Variegato di Castelfranco	PGI	#4	1	1			0	No	0		
		Riso Nano Vialone Veronese	PGI	#2	1	1			1	No	1		
1.8	Italy	Aceto Balsamico di Modena	PGI	#1	2	17	17		2	Yes	9	9	
				#2	5				4	Yes			
				#4	10				6	Yes			
2.1	Germany	Münchener Bier	PGI	#4	2	1	2		2	No	1	1	
2.3	Italy	Cantuccini Toscani	PGI	#2	2	4	15		2	No	3	8	
				#4	2				2	Yes			
		Pane casareccio di Genzano	PGI	#2	1	1			0	No	0		
		Panforte di Siena	PGI	#2	1	1			1	No	1		
		Piadina Romagnola	PGI	#1	3	8			2	Yes	6		
				#2	2				2	No			
				#4	3				2	Yes			
		Ricciarelli di Siena	PGI	#2	1	1			1	No	1		
2.5	Italy	Maccheroncini di Campofilone	PGI	#2	1	1	58		1	No	1	3	
		Pasta di Gragnano	PGI	#1	23	56			1	No	3		
				#2	8				1	No			
				#4	25				2	Yes			
		Pizzoccheri della Valtellina	PGI	#2	1	1			1	No	1		

Poland

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Poland	Kiełbasa lisiecka	PGI	#4	1	1	21	208	1	No	1	10	61
	France	Jambon de Bayonne	PGI	#1	1	1			1	Yes	1		
		Saucisson sec d'Auvergne	PGI	#3	1	1			1	No	1		
	Italy	Mortadella Bologna	PGI	#2	1	1			1	No	1		
		Prosciutto di Parma	PDO	#1	2	9			2	Yes	7		
				#2	3				3	No			
				#3	3				2	Yes			
				#4	1				1	No			
		Prosciutto di San Daniele	PDO	#1	1	1			1	Yes	1		
	Spain	Chorizo Riojano	PGI	#2	1	1			1	No	1		
		Jamón Serrano	TSG	#1	4	6			1	Yes	3		
				#2	1				1	No			
				#3	1				1	Yes			
1.3	Poland	Bryndza Podhalańska	PDO	#4	1	1	144		0	No	0	39	
		Ser koryciński swojski	PGI	#4	1	1			1	No	1		
	Denmark	Danablu	PGI	#1	1	3			1	No	1		
				#3	1				1	No			
				#4	1				1	No			
		Havarti	PGI	#2	3	3			1	No	1		
	France	Bleu d'Auvergne	PDO	#2	1	2			1	No	1		
				#3	1				0	No			
		Camembert de Normandie	PDO	#3	1	1			1	No	1		
		Cantal	PDO	#1	1	2			1	Yes	2		
				#3	1				1	No			
		Comte	PDO	#4	1	1			1	No	1		
		Époisses	PDO	#2	1	1			1	No	1		
		Fourme d'Ambert	PDO	#3	2	3			0	No	1		
				#4	1				1	No			
		Gruyère	PGI	#2	1	1			1	No	1		
		Langres	PDO	#2	1	2			1	No	1		
				#4	1				1	No			
		Ossau-Iraty	PDO	#1	1	1			1	Yes	1		
		Pont-l'Évêque	PDO	#1	1	1			1	Yes	1		
		Roquefort	PDO	#1	1	3			1	No	3		
				#2	1				1	No			
				#3	1				1	No			
	Greece	Feta	PDO	#1	3	19			2	Yes	9		
				#2	6				5	No			
				#3	2				2	No			
				#4	8				6	No			
		Manouri	PDO	#2	1	3			1	No	2		
				#3	1				1	No			
				#4	1				1	No			
	Italy	Bra	PDO	#2	1	1			1	No	1		
		Gorgonzola	PDO	#1	1	14			1	Yes	8		
				#2	5				4	No			
				#3	5				3	No			
				#4	3				3	No			
		Grana Padano	PDO	#1	3	15			3	No	10		
				#2	5				5	No			
				#3	1				1	Yes			
				#4	6				5	No			
		Mozzarella	TSG	#1	8	34			2	Yes	7		
				#2	9				4	No			
				#3	13				3	No			
				#4	4				2	No			
		Mozzarella di Bufala Campan	PDO	#1	3	5			2	Yes	4		
				#2	2				2	No			
		Parmigiano Reggiano	PDO	#1	4	15			1	Yes	7		
				#2	7				5	No			
				#3	1				1	Yes			
				#4	3				2	No			
		Pecorino Romano	PDO	#1	1	5			1	No	4		
				#2	2				2	No			
				#4	2				1	No			
		Toma Piemontese	PDO	#2	1	1			1	No	1		
	Netherlands	Hollandse geitenkaas	PGI	#2	1	4			1	No	3		
				#3	1				1	No			
				#4	2				2	No			
	Spain	Queso Manchego	PDO	#1	2	2			1	No	1		
	United Kingdom	Blue Stilton cheese	PDO	#4	1	1	1		1	No	1		
1.5	Greece	Chania Kritis	PGI	#4	1	1	10		1	No	1	5	
		Sitia Lasithiou Kritis	PDO	#1	1	1			1	No	1		
	Italy	Sicilia	PGI	#1	1	2			1	No	1		
				#2	1				1	No			
		Toscano	PGI	#1	1	2			1	No	1		
				#2	1				1	No			
		Umbria	PDO	#1	1	3			1	No	2		
				#2	2				2	No			
	Spain	Aceite de Jaén	PGI	#1	1	1			1	No	1		
1.6	Poland	Wiśnia nadwiślanka	PDO	#2	1	1	1		1	No	1	1	
1.7	Poland	Miód drahimski	PGI	#4	11	11	11		1	No	1	1	
1.8	Poland	Podpiwek kujawski	PGI	#3	1	2	20		0	No	0	8	
				#4	1				0	No			
	Italy	Aceto Balsamico di Modena	PGI	#1	1	18			1	No	8		
				#2	7				5	No			
				#3	1				1	No			
				#4	9				4	No			

Portugal

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.1	Portugal	Carnalentejana	PDO	#3	2	2	5	199	1	Yes	1	2	56
		Carne Mertolenga	PDO	#1	3	3			1	Yes	1		
1.2	Portugal	Alheira de Mirandela	PGI	#1	1	4	27		1	Yes	3	14	
				#2	1				1	No			
				#3	1				1	No			
				#4	1				1	No			
		Alheira de Vinhais	PGI	#3	1	1			1	No	1		
	Germany	Nürnberger Bratwürste	PGI	#1	1	1			1	No	1		
	Italy	Prosciutto di Parma	PDO	#1	2	4			1	No	3		
				#3	2				2	No			
	Spain	Jamón Serrano	TSG	#1	3	17			2	Yes	7		
				#2	6				2	Yes			
				#3	8				3	Yes			
1.3	Portugal	Queijo de Azeitão	PDO	#2	1	3	94		1	Yes	2	29	
				#3	2				1	No			
		Queijo de Cabra Transmontar	PDO	#3	1	1			1	No	1		
		Queijo de Évora	PDO	#1	1	2			1	Yes	2		
				#2	1				1	Yes			
		Queijo de Nisa	PDO	#1	2	7			2	Yes	5		
				#2	1				1	No			
				#3	3				2	Yes			
				#4	1				1	No			
		Queijo do Pico	PDO	#3	1	1			0	No	0		
		Queijo mestiço de Tolosa	PGI	#3	1	1			1	Yes	1		
		Queijo Rabaçal	PDO	#4	1	1			0	No	0		
		Queijo São Jorge	PDO	#1	4	16			2	Yes	3		
				#2	3				2	Yes			
				#3	9				1	No			
		Queijo Serpa	PDO	#1	2	4			1	No	3		
				#3	2				2	Yes			
		Queijo Serra da Estrela	PDO	#1	3	11			2	Yes	5		
				#2	4				2	Yes			
				#3	4				3	Yes			
		Queijo Terrincho	PDO	#3	2	2			1	No	1		
		Queijos da Beira Baixa	PDO	#1	2	11			2	Yes	5		
				#3	9				3	Yes			
	France	Roquefort	PDO	#3	2	2			2	No	2		
	Greece	Feta	PDO	#1	2	10			2	Yes	8		
				#3	7				6	Yes			
				#4	1				1	No			
	Italy	Grana Padano	PDO	#1	1	3			1	No	3		
				#3	2				2	Yes			
		Mozzarella di Bufala Campana	PDO	#1	1	1			1	No	1		
		Parmigiano Reggiano	PDO	#1	2	6			1	No	4		
				#2	1				1	Yes			
				#3	3				2	Yes			
		Pecorino Romano	PDO	#1	1	1			1	No	1		
	Spain	Cabrales	PDO	#3	1	1			0	No	0		
		Mahón-Menorca	PDO	#3	1	1			1	No	1		
		Queso Manchego	PDO	#1	2	9			2	Yes	5		
				#2	1				1	No			
				#3	6				3	Yes			
1.4	Portugal	Requeijão Serra da Estrela	PDO	#1	1	2	2		1	Yes	2	2	
				#2	1				1	No			
1.5	Portugal	Azeite de Moura	PDO	#1	8	15	38		3	Yes	4	12	
				#2	2				2	No			
				#3	5				2	Yes			
		Azeite de Trás-os-Montes	PDO	#1	8	13			5	Yes	6		
				#2	2				1	No			
				#3	3				2	Yes			
		Azeite do Alentejo Interior	PDO	#1	2	2			1	No	1		
		Azeites do Norte Alentejano	PDO	#1	3	6			1	No	1		
				#2	2				1	No			
				#3	1				1	No			
		Azeites do Ribatejo	PDO	#1	2	2			1	No	1		
1.6	Portugal	Citrinos do Algarve	PGI	#1	4	5	23		1	Yes	1	3	
				#3	1				0	No			
		Maçã Bravo de Esmolfe	PDO	#3	1	1			1	No	1		
		Maçã da Beira Alta	PGI	#1	1	2			0	No	0		
				#3	1				0	No			
		Maçã de Alcobaça	PGI	#1	5	11			0	No	1		
				#3	4				1	Yes			
				#4	2				0	No			
		Pêra Rocha do Oeste	PDO	#1	2	4			1	Yes	2		
				#3	2				1	Yes			
1.8	Italy	Aceto Balsamico di Modena	PGI	#1	3	10	10		1	No	4	4	
				#2	2				1	No			
				#3	5				4	No			

Spain

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.1	Spain	Carne de Ávila	PGI	#4	2	2	51	128	1	No	1	6	32
		Carne de la Sierra de Guadarrama	PGI	#3	4	23			1	No	1		
				#4	19				0	No			
		Sobrasada de Mallorca	PGI	#4	6	6			2	No	2		
		Ternasco de Aragón	PGI	#4	1	1			0	No	0		
		Ternera Asturiana	PGI	#4	10	10			2	No	2		
		Ternera de Extremadura	PGI	#4	2	2			0	No	0		
		Ternera Callega	PGI	#4	7	7			1	Yes	1		
1.2	Spain	Botillo del Bierzo	PGI	#2	1	1	16		0	No	0	10	
		Chorizo de Cantimpalos	PGI	#4	1	1			1	No	1		
		Chorizo Riojano	PGI	#4	1	1			1	No	1		
		Jabugo	PDO	#1	1	1			1	No	1		
		Jamón Serrano	TSG	#2	1	1			1	No	1		
		Salchichón de Vic	PGI	#4	1	1			1	No	1		
		Sobrasada de Mallorca	PGI	#1	2	2			1	No	1		
	France	Canard à foie gras du Sud-Ouest	PGI	#1	2	4			1	Yes	2		
				#4	2				1	Yes			
	Italy	Mortadella Bologna	PGI	#1	1	4			1	No	2		
				#2	1				1	No			
				#4	2				2	No			
1.3	Spain	Añuega'l Pitu	PDO	#4	1	1	31		1	Yes	1	16	
		Arzúa-Ulloa	PDO	#4	2	2			2	Yes	2		
		Cabrales	PDO	#4	1	1			1	Yes	1		
		Mahón-Menorca	PDO	#1	1	3			1	No	3		
				#4	2				2	Yes			
		Queso Casín	PDO	#4	1	1			1	No	1		
		Queso Los Beyos	PGI	#4	1	1			1	No	1		
		Queso Manchego	PDO	#3	1	2			1	No	2		
				#4	1				1	Yes			
		Queso Tetilla	PDO	#4	1	1			1	Yes	1		
		Queso Zamorano	PDO	#4	1	1			1	No	1		
		Roncal	PDO	#4	1	1			1	No	1		
		San Simón da Costa	PDO	#4	2	2			2	Yes	2		
		Torta de Casar	PDO	#4	1	1			1	No	1		
	France	Bleu d'Auvergne	PDO	#1	1	1			1	No	1		
		Fourme d'Ambert	PDO	#1	1	1			1	No	1		
		Roquefort	PDO	#1	1	1			1	No	1		
		Saint-Nectaire	PDO	#1	1	1			1	No	1		
	Italy	Gorgonzola	PDO	#2	1	1			1	No	1		
		Grana Padano	PDO	#4	2	2			1	No	1		
		Mozzarella di Bufala Campana	PDO	#4	1	1			1	No	1		
		Parmigiano Reggiano	PDO	#2	3	4			2	Yes	3		
			PDO	#4	1				1	No			
		Pecorino Romano	PDO	#4	1	1			1	Yes	1		
	Netherlands	Gouda Holland	PGI	#4	1	1			1	No	1		
1.5	Spain	Montes de Toledo	PDO	#4	1	1	1		1	No	1	1	
1.6	Spain	Alcachofa de Tudela	PGI	#4	1	1	18		1	Yes	1	8	
		Berenjena de Almagro	PGI	#4	1	1			1	Yes	1		
		Calasparra	PDO	#4	1	1			1	Yes	1		
		Espárrago de Navarra	PGI	#2	1	6			1	Yes	5		
				#4	5				5	Yes			
		Faba Asturiana	PGI	#4	1	1			1	Yes	1		
		Garbanzo de Escacena	PGI	#4	1	1			1	No	1		
		Garbanzo de Fuentesaúco	PGI	#4	1	1			1	Yes	1		
		Judías de El Barco de Ávila	PGI	#4	1	1			1	No	1		
		Lenteja de la Armuña	PGI	#4	1	1			1	Yes	1		
		Pasas de Málaga	PDO	#1	1	1			1	No	1		
		Pimiento Asado del Bierzo	PGI	#4	1	1			1	Yes	1		
		Pimientos del Piquillo de Lodosa	PDO	#4	2	2			2	Yes	2		
1.8	Spain	Azafrán de la Mancha	PDO	#4	1	1	7		1	Yes	1	3	
		Pimentón de Murcia	PDO	#4	2	2			1	Yes	1		
		Pimentón de la Vera	PDO	#4	1	1			1	Yes	1		
		Vinagre de Jerez	PDO	#4	3	3			3	Yes	3		
2.3	Spain	Jijona	PGI	#4	1	1	4		1	Yes	1	2	
		Mantecadas de Astorga	PGI	#4	1	1			1	No	1		
		Sobao Pasiego	PGI	#4	1	1			1	Yes	1		
		Turrón de Alicante	PGI	#4	1	1			1	Yes	1		

Argentina

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Argentina	Salame de Tandil	DO	#1	5	10	22	180	5	No	1	5	37
				#3	1				1	No			
				#4	4				1	No			
	Spain	Chorizo Riojano	PGI	#1	2	2			1	No	1		
		Jamón Serrano	TSG	#1	10	10			4	No	4		
1.3	Denmark	Danablu	PGI	#1	3	3	10		2	No	2	7	
	France	Gruyère	PGI	#1	2	2			2	No	2		
	Italy	Gorgonzola	PDO	#1	1	1			1	No	1		
		Grana Padano	PDO	#1	1	1			1	No	1		
		Mozzarella	PDO	#1	1	1			1	No	1		
		Parmigiano Reggian	PDO	#1	1	1			1	No	1		
		Pecorino Romano	PDO	#1	1	1			1	No	1		
1.8	Argentina	Yerba Mate	IG	#1	22	148	148		8	No	25	25	
				#2	30				11	Yes			
				#3	50				17	No			
				#4	46				13	Yes			

Brazil

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Italy	Mortadella Bologna	PGI	#1	1	11	16	60	1	No	4	7	23
				#2	2				2	No			
				#3	5				3	No			
				#4	3				2	No			
	Spain	Jamón Serrano	TSG	#1	1	5			1	No	3		
				#2	3				3	Yes			
				#3	1				1	No			
1.3	Brazil	Canastra	IP	#1	1	2	2		1	No	1	7	
				#3	1				1	No			
	France	Gruyère	PGI	#1	1	5	14		1	No	2		
				#2	1				1	No			
				#3	3				2	No			
	Italy	Grana Padano	PDO	#2	1	2			1	No	1		
			PDO	#3	1				1	No			
		Mozzarella	TSG	#2	2	3			1	No	1		
				#3	1				1	No			
		Parmigiano Reggiano	PDO	#3	1	1			1	No	1		
		Pecorino Romano	PDO	#2	2	2			1	No	1		
	Spain	Queso Manchego	PDO	#2	1	1			1	No	1		
1.5	Greece	Chania Kritis	PGI	#3	1	1	5		1	No	1	2	
	Portugal	Azeites do Norte Alentejar	PDO	#3	4	4			1	No	1		
1.6	Portugal	Pêra Rocha do Oeste	PDO	#2	1	2	2		0	No	0	0	
				#3	1				0	No			
1.8	Brazil	Alta Mogiana	IP	#1	6	8	21		3	No	3	7	
				#2	1				1	No			
				#4	1				1	No			
		Matas de Minas	IP	#4	1	1			1	No	1		
		Região Cerrado Mineiro	IP	#1	3	7			3	No	3		
				#2	2				1	No			
				#4	2				1	No			
	Italy	Aceto Balsamico di Moden	PGI	#2	5	5			4	No	4		

Paraguay

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Argentina	Salame de Tandil	DO	#3	4	4	7	43	1	No	1	2	13
	Spain	Jamón Serrano	TSG	#1	2	3			1	No	1		
				#3	1				1	No			
1.3	France	Roquefort	PDO	#1	1	3	13		1	No	3	6	
				#2	1				1	No			
				#4	1				1	No			
	Italy	Grana Padano	PDO	#1	1	3			1	No	1		
				#3	2				1	No			
		Parmigiano Reggiano	PDO	#1	1	5			1	No	1		
				#3	3				1	No			
				#4	1				1	No			
	Spain	Queso Manchego	PDO	#1	1	2			1	No	2		
				#3	1				1	No			
1.8	Argentina	Yerba mate	IG	#1	3	5	23		1	No	1	5	
				#4	2				1	No			
	Italy	Aceto Balsamico di Moden	PGI	#1	7	18			3	No	4		
				#2	6				4	No			
				#4	5				2	No			

Uruguay

Category*	Origin	GI Product	Type**	Supermarket	Number of products	Products per GI	Products in the category	All products	Number of brands	Supermarket's brand?	Brands per GI	Brands per category	Total brands
1.2	Italy	Mortadella Bologna	PGI	#2	1	5	38	105	1	No	1	10	29
				#3	2				1	No			
				#4	2				1	No			
		Prosciutto di Parma	PDO	#1	2	8			2	No	3		
				#2	2				2	No			
				#3	2				2	No			
				#4	2				2	No			
		Prosciutto di San Daniele	PDO	#1	1	6			1	No	2		
				#2	1				1	No			
				#3	1				1	No			
				#4	3				2	No			
	Spain	Jamón Serrano	TSG	#1	6	19			5	No	6		
				#2	6				4	No			
				#3	3				3	No			
				#4	4				3	No			
1.3	Denmark	Danablu	PGI	#1	1	8	43		1	No	1	12	
				#2	3				1	No			
				#3	2				1	No			
				#4	2				1	No			
	France	Gruyère	PGI	#1	2	4			2	No	2		
				#4	2				1	No			
		Roquefort	PDO	#4	1	1			1	No	1		
	Greece	Feta	PDO	#1	2	2			1	No	1		
	Italy	Gorgonzola	PDO	#1	2	3			2	No	2		
				#4	1				1	No			
		Grana Padano	PDO	#1	2	10			1	No	2		
				#2	4				1	No			
				#3	4				2	No			
		Mozzarella	TSG	#2	1	1			1	No	1		
		Parmigiano Reggiano	PDO	#1	1	7			1	No	2		
				#2	3				2	No			
				#3	2				1	No			
				#4	1				1	No			
		Pecorino Romano	PDO	#1	1	2			1	No	1		
				#3	1				1	No			
	Spain	Queso Manchego	PDO	#1	2	5			1	No	2		
				#2	1				1	No			
				#3	2				2	No			
1.8	Italy	Aceto Balsamico di Modena	PGI	#2	9	24	24		4	No	7	7	
				#3	13				6	No			
				#4	2				2	No			