

Uruguay in global value chains and global production networks

A comparison between the livestock cycle of the early twentieth century and the current soybean expansion.

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1. Introduction

Recent decades have witnessed revolutionary changes in what concerns the global structure of production and distribution. While the geographic spread of economic activities across national boundaries was initiated hundreds of years ago, the functional integration and coordination between internationally dispersed activities took place from mid-twentieth century (Gereffi, 1999b). The spread of the capitalist mode of production following the Second World War has led to the development of a complex and highly integrated world economy in which trade and investment occur on a massive scale at increasingly rapid rates¹.

One of the main features of the post war trade growth has been the phenomenon of intra-industry trade which has been associated to the growth of intra-firm trade. One of the main forces behind these trends has been the rise of transnational companies (TNCs)² since the 1950s. It has involved the proliferation of corporate activity and business networks across the globe. Besides the changes in both the volume and type of trade, the creation of a regulation system at global scale³ and the proliferation of regional agreements are probably the major developments in the post-war international trading system.

The deepening of globalization of production has been the result of several interrelated factors and is complex (and debatable) determine to what extent each factor has contributed to the increased interdependence among firms, nations and regions. The accelerating pace of technological change, the significant reduction in international transport and communication costs, the developments of international finance are some of the structural changes that have been behind the emergence of a structure of production increasingly more connected globally. But the latter is also a respond to governmental policies as well as changing organizational patterns within the firms that have led modifications in their strategies.

More debatable than determine the factors that shaped the evolution of the contemporary global production system is to establish its consequences. The shift from an international to a more global division of tasks and labour has impacted unevenly across regions and nations. There is no consensus concerning the costs and benefits to countries from engaging in these global networks of production. This controversy is associated with the historical debates generated around the impacts of international trade among countries. In particular, this has been (and still is) a central concern to the developing countries.

Changes in the production process are closely related to changes that have to do with how people fit into the production process. The move from an international to a global division of labour has

¹ Between 1945 and 2007, world production doubled but international trade grew more than fourfold. However, the growth in world trade has been uneven, reflecting global economic cycles. (O'Brien & Williams, 2010: 157). In 1960 FDI flows globally represented 60 billion dollars; they exceeded 500 billion in 1980 and in 2001 they reached 6.8 trillion dollars. (Jones, 2005) , quoted in Barbero (2014: 4)

² Modern TNCs emerged in the late nineteenth century as part of the first globalization; they expanded significantly since World War II and were established from the 1980s into one of the key vectors of integration of the second globalization. (Barbero, 2014)

³First it was represented by the General Agreement on Tariffs (GATT) and later by the World Trade Organization (WTO).

involved, among other things, that economic activities that in the past might have been thought of as being confined to particular nations now existing in very different types of states. However, certain activities are still more concentrated in some areas rather than others. (O'Brien and Williams, 2010)

The most significant change has probably been the shift away from a traditional dependence on the export commodities to the increasing specialization in labour-intensive, low-technology manufactured products by some developing countries in the East Asian, India and Brazil⁴. The ability of the large firms to locate parts of their production overseas has entailed that many developing countries were integrated into global production system because of their low wage labour or the access to cheap raw materials and natural resources (O'Brien and Williams, 2010). In this sense global production restructuring has not helped to bet on dynamic competitive advantages and had reinforced unequal production patterns by reproducing territorial difference.

Indeed, one could argue that the picture of the world at the beginning of XXI century has not changed much from that of the early twentieth century where countries which had gone through the industrial revolution made manufactured goods and other nations supplied raw material and food. While today the division of tasks does not rely too much in the dichotomy between primary and manufactured good, the demarcation is clearly positioned in low value-added vs. knowledge-intensive products.

2. Formulation of the research problem

Our region has not remained untouched by changes that have occurred globally. Unlike early twentieth century, the Southern Cone countries are much more connected, both internationally and at regional level⁵. New players are present in the region, either as new trade partners or by operating within boundaries. Not only trade and investment are higher than the levels recorded in the early twentieth century, but today they take place under an elaborate system of rules and formal international and regional organizations.

New and diverse economic activities have developed throughout the twentieth century. The productive structures of the Southern Cone have transformed. In particular, to a lesser or greater degree, they recorded significant changes during the period called Import Substitution Industrialization (ISI), allowing some degree of productive diversification and a relative degree of industrial development. However, recent trends in the region seem to confirm a reversal. The bet returns once again to be positioned in the agro-export sector as engine of growth.

The new routing strategies of the Southern Cone have undoubtedly been associated to transformations that have occurred globally. According to Weis (2007), since the end of the Second World War, as part of the global agro-food restructuring, many changes have taken place in the agrarian structures of developing countries. This has led the development of different patterns. The

⁴ In spite of its old position as a leading sugar and coffee, Brazil was relatively insignificant in global agricultural trade in 1970s. However, recent decades have shown a reverse. As well is asserted by Weis, Brazil is today "one of the world's biggest-volume and most competitive exporters in the grain, soy and livestock production that lie at the heart of the global food economy" (2007, 112).

⁵ According To Bértola and Ocampo (2010), the commercial liberalization and subsequent integration into the world economy based on comparative advantage, and a great openness to FDI (with few exceptions) were of great significance in Latin American countries in the market reforms arising from the 70s.

first is that, which took place in most of the world's Least Developed Countries (LDCs) where agriculture makes the greatest relative contribution to GDP and employment in the world. These countries have become net food importers and the most vulnerable to food insecurity. The second pattern was followed by countries such as China and India which successfully pursued food self-sufficiency among rapid population growth by coupling very different productive transformations with protective agricultural trade policies. Finally, the third pattern has been followed by a group of developing countries with very highly competitive agro-export platforms, which have come to occupy a remarkable place in the global food economy.

In terms of this categorization, the Southern Cone countries would be located within the third group of countries. The soybean phenomenon in the region is illustrative. It began to expand and gain prominence as an export commodity in the countries of the Southern Cone in the 1990s⁶. Today, this region is the world's biggest –volume and most competitive- exporter in the soy production⁷. Not only the region has become important for the soybean sector globally, but also this sector represents today an essential part of the GDPs and the balance of payments of these economies (Giraudó, 2014:10).

While the Uruguayan soy production still represents a small percentage of the Southern Cone production (and even less of the global production)⁸, the expansion of soybean in our country has been revolutionary borders inside. Soybean has become the most important crop in both terms of area and exports. As is well illustrated by Baraibar "in just over a decade soybean production in Uruguay emerged from almost non-existence to one million hectares of cultivation in 2012 making it the second most important export product" (2014: 16). This crop has been the leading product of the agricultural expansion recorded since the beginning of this century⁹.

The soybean expansion occurs in a context of significant agricultural expansion in Uruguay which has been largely associated with the increase in international agricultural prices that began during the nineties. Along with the expansion of soybean, a growth of forestry as well as increases in production and productivity of livestock were recorded. (Moraes and Piñeiro, 2008) As in the early twentieth century, the growth strategy of the country returned to be positioned in the agro-export sector. The relevance of soybean production in this strategy is being very similar to the role played by livestock production during the first globalization (1870-1930). Driven by high prices in international markets and increasing demand concentrated on few countries, soybean exports -as like meat exports during the first globalization- emerge as one the engines of growth.

⁶ This expansion occurred in a context of soy expansion on a global scale, which occurred in part as a response of the increasing demand of soybean to produce oils and meat from the EU and later, from China and Southeast Asian countries. (Magdoff and Tokar, 2010)

⁷ The Southern Cone (Argentina, Brazil, Paraguay, Uruguay and Bolivia) has become the world's largest producer of soybean. Brazil is now the second largest world producer and Argentina the third. Paraguay has the world's largest percentage on its agriculture land dedicated to soybean while the fastest increase in production has been in Uruguay (Gudynas, 2008:173)

⁸ While the global production is estimated about 264 million tons in 2013, the Southern cone production account for almost 160 million tons. The soybean production in Uruguay is about 3,7 tons in the harvest 2012/13. (Souto, 2013)

⁹ While the gross value of agricultural production grew 150% between 2000 and 2009, the gross value of production of grains did at the rate of 800%. In 2010 soybean represented 39, 6% of the gross value of dryland agriculture. (Oyhantcabal et.al, 2011:17)

The first globalization (1870-1930) coincided in Uruguay with the so called “agrarian modernization”. The modernization was associated with the technological path followed by the introduction of sheep, the iron fencing, the expansion of the railroad, the new breeding techniques and canning, and the emergence of the meat industry. These technological improvements as well as new institutional arrangements¹⁰, made possible the consolidation of the model of capitalist agricultural production and with it, the dominant livestock export cycle that took place during this period. (Moraes, 2003)

In large part, these changes were made in response to external demands¹¹. In fact, the development of the “frigorífico” consolidated the integration of Uruguayan meat into developed capitalist world where the British market played a central role (Alonso, 1984). Great Britain was important not only on the demand side for Uruguayan meat, but also in domestic transport infrastructure as well as in different activities of the meat supply chain such as breeding, packing, canning and shipping (Baraibar, 2014).

The current soy expansion in Uruguay has also been strongly influenced by developments in external demand. This has been associated with the growing demand for soybean floor to intensive meat production in the European Union, China and India, as well as with the dynamism of biofuel production and the influx of speculative financial capital to agriculture (Oyhantcabal and Narbondo, 2011).

As the meat expansion of the early twentieth century, the current soybean expansion can also be seen as the result of a technological path that has developed since the middle of last century and has been behind the agro-food restructuring. The current agro-food system has been embodied at a global scale along successive technological processes such as the green revolution, factory farming and genetic engineering. The simplification and standardization of agriculture production as well as the increasing integration of farming by capital concentrated upstream and downstream of production have been some of the main consequences resulting from these processes. (Weis, 2007) In Uruguay, to a lesser or greater extent, these processes have been recorded.

The agro-TNCs play a dominant role in the soybean chain. They dominate the Uruguay soybean trade and also take part in other stages of the chain such as input markets, storage, transport and crushing (Baraibar, 2014). Unlike the meat chain of the early twentieth century, foreign economic groups and transnational companies are also present in the production stage of soybean. According to Oyhantcabal and Narbondo (2011) the production stage is led by the so-called “seed pools” which are managed by big foreign firms, mainly from Argentina.

The fact that the rise of global private regulation and the power of the TNCs in influencing international trade negotiations and government policies have increased significantly brings up the

¹⁰ The state had an active role in legitimizing and guaranteeing the rights of individuals on land and livestock. Numerous institutional changes were prompted: the Rural Code of 1875, tax exemptions on imports of wire fencing, the General rules of rural police and Department of Campaign in 1876, the creation of a special police service of landowners in the same year, the creation of the General Office of Marks and Signs of Livestock in 1877, departmental records and sectional properties in 1879 and the law against vagrancy and theft of cattle in 1886. (Moraes, 2003)

¹¹ According to Barrán y Nahum, the modernization represented “*la entrada del país y en el país de formas económicas, sociales y políticas que aparentemente respondían a una necesaria “puesta al día” del Uruguay con el mundo, el avance del capitalismo en una región dependiente de los imperios mundiales.*” (1978:177)

discussion about the current role of the state in global governance. The state's ability to act as a transformative agent that shape globalizing process in line with national objectives seems much more challenging today than a century ago.

In this context it is valid to ask how different is today the relationship between state and market in Uruguay, compared to the period corresponding to the first globalization. Located on the comparison between the current cycle of soy and the meat cycle of the early twentieth century, the question that guides this research is: What role did the state in the way in which the meat supply chain of the early twentieth century emerged and evolved and what role is playing today in the chain of soy?

3. *Significance/Relevance*

The passions and disputes generated in discussions on trade across borders are today also present in the controversy raised by the increased presence of TNCs and foreign direct investments (FDIs) in developing countries. The costs and benefits from engaging in global networks vary from case to case. According to O'Brien and Williams (2010), the policies followed by host governments, the economic and social context of investments, the type of firm and the sector in which the investment is located are central factors in this discussion.

Undoubtedly, the attitudes, skills and ability of the governments to regulate and redirect the activities of TNCs of the national developments plan matters. However, the scope of action of each government depends on the position in which the country is. Furthermore, government policies are only one side of the picture. The rise in agreements and organizations at a global level has influenced enormously over domestic policies. Their structures and decision-making bodies (in theory or in practice) are driven by the strongest trading countries who are responding (in part) to the interests of TNCs. Furthermore, the increasing transnationalization of firms has transformed traditional state-firm relations.

These issues become difficult to dodge in a world where it seems that the struggle for development is becoming more complicated. Much of the world –with few exceptions in East and South-east Asia - continues to lose ground relative to advanced industrialized countries (O'Brien and Williams, 2010). As Wallerstein argues, “Despite all theories, and all the presumed effort (aid, technical assistance, human investment), the so- called “gap” between the developed and the developing countries was growing bigger, not smaller” (2010:168).

Liberal trade theory has been subjects to successive reformulations to take account of the growth of intra-industry and intra-firm trade and to reflect the fact that today trade is increasingly driven not by comparative costs but by management's decisions of the large firms. However, its basic underlying assumptions have remained. In particular, the origin of comparative advantage remains unquestioned. The importance of historical power relations in the creation of comparative advantage has been ignored by the liberal paradigm. This has been widely criticized and has largely been breeding ground for the emergence of alternative interpretations.

Critical towards the liberal ideas, the Latin American structuralism of mid-twentieth century and dependency theory see the global capitalism as one single process where international division of labour was not created spontaneously and naturally but was based upon historical conflicts which locks countries into particular roles. According to this approach, follow the liberal receipt of

specialization based on comparative advantage through international exchange would only reproduce disparities between regions. (Dos Santos, 1970) Instead it was central in developing countries the role of state to protect domestic key sectors and promote changes in their productive structures. The state should assume the lead role of regulating the market. (Presbich, 1949)

Later, in 1970s, the world-system perspective emerged and shared with dependency theory the idea that there is only one world connected by a complex network of economic exchange relationships and that the divergences in social and economic development are inherent of this system. According to this approach, the countries position and the way they are inserted in the world is what mainly determines their development prospects. But unlike dependency theory, the world-system theory argues that it is not appropriate to take the state as the unit of analysis. In the words of Wallerstein "a developmentalist perspective assumes that the unit within which social action principally occurs is a politico-cultural unit – the state, or nation, or people - and seeks to explain differences between these units, including why their economies are different. A world system perspective assumes, by contrast, that social action takes places in an entity within which there is an ongoing division of labour, and seeks to discover empirically whether such an entity is or is not unified politically or culturally, asking theoretically what are the consequences of the existence or non-existence of such unity" (Wallerstein, 2010: 169).

These debates far from dying, have gained strength in recent years. As the process of globalization and regionalization intensify, the interdependence among countries increases, not only in economic but also in social, political and ecological terms. What are the effects of greater interaction between countries and regions for the welfare of the people? What is the best way to tackle this issue?

Thus, the study of the behavior of the actors and their forms of organization can be addressed from different levels of analysis. According to Schneider and Soskice (2009), since the institutional key framework (e.g. education system, political system, taxes, welfare state, the legal system) are still mainly nationally defined, it is valid to put the focus on the national level. However, as well is argued by Perraton (2009), this should be done not losing sight of the fact that interaction between countries and regions matters and that their dynamics and processes influence each other. Thus, in the analysis of specific domestic institutions, the national and international context as well as the interplay between these institutions and the rest of the institutional assembly should be considered.

4. Theoretical frameworks

The greatest difficulty of analyzing a reality increasingly more complex has been addressed from different angles. One way to understand the links between discrete places of production and the global economy is by focusing on the role of the principal agents, the large international firms. The study of the dynamics of transnational corporations (TNCs) has probably been the most widely used way to understand the global production structure and its changes.

An alternative approach would be to examine the chain or network of connections of different activities involved in the developing of a product/commodity. Global value chains (GVCs) and global production networks (GPNs) provide a framework for addressing how firms, nations and regions interact through various activities in which they are part. Moreover, these interrelated theoretical frameworks allow us to understand "why economic activity takes its particular spatial forms, and how

it accrues advantage and disadvantage in different measure to place-bound interests” (Neilson and Pritchard, 2009:7).

The Global Commodity or Value Chains (GVCs) approach was originated and popularized by the research of Gary Gereffi during the nineties. Its roots can be found in the tradition analysis derived from world systems theory. The approach originally sought to operationalize some of the conceptual categories defined by world systems theory, through the study of the dynamics of the global organization of production, putting the focus on the TNCs and their relationship with development processes (Gereffi, 1995). Nevertheless, far from focus only on TNCs, GVCs studies move through different actors from producers, through large firms, across state regulation, into distribution and retail systems. To analyze these dynamics, this approach uses, as a subject of study, the “entire trajectory of a product from its conception and design, through production, retailing and final consumption” (Leslie and Reimer, 1999).

Initially, the main elements of GVCs analysis focused on three dimensions: (i) the input-output structure of the chains/networks; (ii) the territory which they cover; and (iii) their internal governance structure. (Gereffi, 1994) As well is noted by Gibbon (2001), while the first two dimensions have mainly been used descriptively in GVCs studies (to outline the configuration of specific chains), the study of the third dimension has so far received most attention. Through the analysis of internal governance structures, the GVCs approach seeks to provide an insight of how chains are coordinated and who does the coordinating.

A large number of empirical studies has focused specifically on the governance of different types of value chains and had shed light how the way the chain is coordinated affects local upgrading¹² strategies. Through the analysis of governance it is possible to appreciate the processes by which lead firms¹³ seek to coordinate production through backward and/or forward linkages (Oro and Pritchard, 2011). The initial 2-fold governance framework - producer-driven chains/ buyer-driven chains – proposed a distinction between a chain coordinated by large, upstream firms and a chain coordinated by downstream firms such as design and retail.

Later, as an attempt to adapt this framework to a more complex reality, a 5-fold categorization of governance types was developed.¹⁴ (Gereffi et.al., 2005) This change was due to new and more empirical research in the field as well as the incorporation of a relational perspective into this field, through the development of the concept of GPNs and by insights relation to embeddedness, actor-network theory and institutional environments (Oro and Pritchard, 2011). According to Gereffi et.al., “the key insight is that coordination and control of global-scale production systems, despite their complexity, can be achieved without direct ownership” (2005: 81).

¹² In general, the term “upgrading” refers “to make better products, make them more efficiently or move into more skilled activities” (Humphrey and Schmitz, 2001:1017). However, this concept refers only to economic upgrading. The GVCs studies put also the focus on social upgrading. In particular, as is argued by Gereffi (2013), it has showed how vertically coordinated trade and investment patterns in the global economy can be linked to employment outcomes.

¹³ Lead firms are not necessarily the traditional vertically integrated manufacturers, or those involved in making finished products. They can be located upstream or downstream of the chain or they can be involved in the supply of critical components. What distinguishes lead firms from their followers is that they control access to major resources that generate the most profitable returns in the chain. (Gereffi, 1999a)

¹⁴ The forms of coordination of chains are: markets, modular, relational, captive and hierarchy. (See Gereffi, et.al., 2005)

It was not just the bi-modal distinction between producer-driven and buyer-driven of GVCs literature that was challenged by authors from the field of GPNs studies. According to Henderson et.al. (2002), much of the work from within the GVC tradition has been concerned with currently existing chains. The analysis about how chains changes over time has been omitted and with it, useful concepts such as path dependence and its implications for the evolution of the chain are ignored. Furthermore, according to these authors, the excessive focus on buyer-driven chains as a category of analysis has led to obviate the analysis of the significance of firm ownership (domestic or foreign and its nationality). Finally, the main criticism that is made to GVCs approach, from the GPNs perspective, is that the analysis is too focused on firms. By taking into account only the interaction between firms in different locations and not consider that chains production also link specific social and institutional contexts at the national level, the GVCs approach is assuming that firms follow the same strategies wherever they located. In addition, and perhaps more importantly, focus only on the interaction between firm means ignores the role of national (or local) institutions in shaping the chain.¹⁵As is noted by Sturgeon, the value chain “do not exist in a vacuum but within a complex matrix of institutions and supporting industries” (2001:11).

According to Neilson and Pritchard (2009), the consideration of institutional context in conjunction with governance provides a useful framing device for the examination of how product/commodity systems intersect with space and place. They claim that while issues relating to governance encapsulate the coordinating structures which connect economic actors across space, issues relating to institutions represent the multi-scalar contexts that explain how economic actors are embedded within particular geographies.

According to these authors “system of value chain governance intermesh with the institutional life of territorially embedded production arrangements; institutions shape governance forms, and governance is enacted through institutions” (Neilson and Pritchard, 2009: 9). As they argue, this interaction does not necessarily happen without conflict but usually arises in the form of power struggles.

The incorporation of the institutional dimension to the analysis of GVCs/GPNs, has great implications as regards the role of the state in shaping the chains. As are argued by Neilson et.al. “the state action and inaction creates the enabling conditions that shape *whether* and *how* firms, nations, and regions are able to engage with global markets and their capacities to upgrade these engagements” (2014:3). According to them, while the original GVCs formulation tends to treat the state as a context for firm-specification, GPNs researchers are more explicit in their incorporation of state institutions¹⁶ in shaping the constitution of global production networks. However, these authors claim that in spite of the state is a key aspect of research narratives in both GVCs and GPNs literatures, it is rarely placed in the foreground, and even more rarely, given due theoretical consideration.

¹⁵ Still, Henderson et.al, recognize that GVC perspective has been crucial in overcoming the limitations of state-centered forms of analysis. According to them, GVCs studies have showed that “the capacities to generate value are asymmetrically distributed because of the structure of GCCs” ... “a structure of corporate power embedded in the intra and inter-firm networks which circle the globe” ..., In doing this, this perspective “points to the existence of new forms of “dependent development” as well as to possible ways of transcending those constraints”. (2002: 442)

¹⁶ When the authors refer to state institutions, are specifically referring to different policy arenas such as “wage-setting, tariffs, taxes (and tax concessions), infrastructure provision, education, training and research, and spatial planning (such as the establishment of free trade zones and business hubs)” (Neilson et.al., 2014:3).

From this perspective, the global chain/networks of production are not only emergent artefacts from state action, but also they impact recursively within the arenas in which they are connected¹⁷. In this sense, the state, as a constellation of functions and capacities, is a crucial shaper of the (dis)enabling environments for articulation into these chains/networks.

5. Objectives

General objective

This study will carry out a comparative historical analysis between two periods of the Uruguayan agricultural production: the livestock export-led growth model between 1870 and 1930 and the current export-led growth model that was consolidated in 1990s. Within each of these periods, the focus will be placed, respectively, on the meat supply chain and the soybean chain.

The primary objective of the analysis is to examine the interplay given by the internal governance and the institutional arrangements promoted by the state in shaping the evolution of the chains. In particular, this project attempts to examine to what extent the state acted (and acts) as an intermediary, shaping the governance of the chain to align its outcomes with national priorities.

It may be useful to reformulate the objective of this study in terms of the perspective of GVCs/GPNS adopted in this project:

According to this perspective, the conformation of value chains is the result, in part, of a series of struggles created as place-based institutions negotiate the ability of governance structures to determine social, economic and environmental outcomes.

In this term, the aim of this research is to answer: How different are these power struggles today in the chain of soybean, than those existing in the meat supply chain of the early twentieth century? How and to what extent has changed the state's ability to participate in the governance of the chain to align their performance to national goals?

Specific objectives

Based on this general objective, the work is set at three levels of analysis, which correspond to the following specific objectives:

- a) Describe the input-output structure of the chains and the territory which they cover using the methodology suggested by GVCs/GPNS framework.
- b) Identify some of the impacts of the chains in economic, social and ecological terms. This will be done through the analysis of forward and backward links, functional income distribution and changes in land-use and land-cover.
- c) Analyze the interplay between the internal governance of the chain and the institutional arrangements promoted by the state.

¹⁷ To be more explicit, they assert "processes of global competition associated with participating in GVCs/GPNS may place pressures on the state to dilute or liberalize wages policies; may inspire the state to beef up research or training capacities; or may entice states into entrepreneurial strategies such as provisioning firms with tax holidays or even taking a direct equity stake in these firms, in the attempt to capture a "better slice" of a GVC/GPN" (Neilson et al., 2014:3).

Before moving to the next step, it should be stated that the aim of this research work is not to validate a causal link between “governance and institutional structures”, and “social, economic, and environmental outcomes”. This is associated with the role given by this project to the theory. According to Day, “there are two ways to investigate the relation between general theories and (historical) particulars: the latter confirming the former, and the former being used to explain or understand the latter.” (2008:98). The second way referred by Day will be taken in this study.

According to the theoretical framework adopted in this project, the role of the institutional arrangements promoted by the state and its interplay with governance structures matters in determining social, economic and environmental outcomes of the chain. The present research project does not seek to validate this state but instead, used it to understand a particular historical fact.

5. Methodology

The kind of explanatory model that is intended to be used in this work is the interpretative, by carrying out a qualitative study type. The historical narrative approach will also be used as a way to complement the interpretative explanation and thus reinforce its validity¹⁸. Though the evolution of both periods and cycles of production will be examined from a qualitative point of view, the analysis will be supported with abundant quantitative evidence.

Before presenting a preliminary empirical strategy, I must warn that given the stage of this research project is founded, the methodology is still unclear. There are many methodological steps that are unresolved, some under construction and some which are subject to big questions. So what follows, far from being a concise methodology, it is only a preliminary empirical strategy. Some questions are left raised. Further progress in both the systematization of empirical studies using the perspective of GVCs/GPNs adopted by this project, as well as the search of primary and secondary sources to address the research objectives proposed, will be necessary to address these questions.

At each stage, the analysis of each period (chain) will be held in comparative terms, trying to extract the main differences and similarities as well as the main changes and continuities.

1. First, the main changes occurred in the Uruguayan agricultural sector since the late nineteenth century will be examined in the context of changes occurred at a global stage. To do that, the Uruguayan agrarian history will be situated in the wider framework of food regimes proposed by Friedmann and McMichael (1989,2009). While the whole period will be characterized, emphasis will be placed on the first regime (1870-1930) which corresponds to the Uruguayan livestock model, and on the third regime (1980-) which corresponds to the current soybean expansion.

This stage is essential for the subsequent analysis. To be able to understand the relationship between domestic and international arenas, it is important and necessary to address the

¹⁸ However, I am not assuming that the historical narrative approach is safe from all types of problems. This approach as any other is not in itself guarantee of a good research. Thus, the narrative will not be taken as a matter of law but under the conviction that one must examine the whole in order to understand any one part and that the historical narrative contributes to that goal.

temporal and spatial context that the analysis of the chains covers. In this sense, the analysis in this stage will be an important input for the next stages. It will allow addressing the analysis of the institutional environment as an open system. While the focus will be the institutional arrangements at the national scale, this will be done taking into account that they are in part the result of changes in the external environment and that national policies are influenced by the rules of international scope.

2. A second step will include the analysis of the chains in terms of their input-output structures and their geographical configurations. That involves the description of the process, actors, products and services which are linked into final production as well the spatial concentration or dispersion of chains/network.
3. As a third step, a set of indicators will be constructed in order to evidence some of the impacts of the chains in economic, social and ecological terms. To identify economic/productive outcomes, the forward and backward linkages of the chains will be examined. For the purpose of visualizing social impacts, the functional distribution of income will be analyzed in both chains. In terms of environmental impacts, it will investigate the impacts of changing land use.
4. Then, the type of governance and institutional arrangements will be examined in both chains. The forms of coordination of the chains will be addressed using the typology proposed by GVCs/GPNs. With regard to the institutional environment, a set of institutional arrangements will be selected in order to show the ability (or inability) of the states to influence how the chains are formed and developed over time. Then the interplay of the form of coordination of the chain and the institutional structure will be analyzed.

It is a preliminary idea about the empirical strategy to be followed by this project. There are many aspects that are still unclear in the analysis.

One imprecise aspect of the analysis is how the analysis of the “institutional environment” will be done. This stage could be tackled once the main institutional arrangements to be addressed have been drawn. This will require a deeper analysis of both periods and a detailed study of the characteristics of both production cycles addressed by this research work. In the selection of institutional arrangements, an important input will be the analysis of the stage 3. This selection will do, in part, according to that stage by emphasizing the analysis of those institutional arrangements that are related to the impacts evidenced.

The use of indicators as a way to evaluate theories and hypothesis is suitable and often unavoidable. However, there is a risk that the indicators are far from the original concepts. In this case, the relationship between them would be uncertain and thus, the validity of the inferences would be questionable. Given that, a relevant question is whether it is feasible to find proxies that enable approaching identify linkages forward and backward in the chain, the functional distribution of income within the sector and changes in land use in the period the first globalization.

Surely the methodology and the explanatory model proposed in this project have more shortcomings that these exposed.

Finally, it should be noted that the systematization of background is still in the construction phase.

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