

PAPER

Title: Patterns of regional income distribution in Uruguay (1872-2012): a story of agglomeration, natural resources and public policies

Authors and e-mails of them:

Julio Martinez-Galarraga <u>Julio.Martinez-Galarraga@uv.es</u> Adrián Rodríguez Miranda <u>adrianrm@iecon.ccee.edu.uy</u> Henry Willebald <u>hwillebald@iecon.ccee.edu.uy</u>

Department:

Economic Analysis Instituto de Economía Instituto de Economía

University:

Universitat de València Universidad de la República Universidad de la República

Subject area: (please, indicate the subject area which corresponds to the paper)

Abstract: (maximum 300 words)

In this paper, we provide a new data set of regional GDP and per-capita GDP for Uruguay between 1872 and 2012. As regards the long-term evolution of regional inequality, we find evidence of a persistent decline from the last third of the 19th century up to the 1960s with a strong reversal of the process from then on. The first decade of the 21st century however shows a new decreasing trend in regional inequality. These results call into question that NEG or H-O approaches could explain regional development without taking account the specificities of Latin American countries and the role of public policy. Indeed, the spatial location of production may be affected by the degree of state intervention in the economy and it is very likely that this type of intervention may alter the fundamentals of the regional specialization opening opportunities to locate economic activities where previously were not profitable. In particular, industrial policies and the application of instruments aimed at improving the competitiveness and capabilities of domestic firms or at promoting structural transformation become main issues in this long-term evolution.

Keywords: Regional economics, economic history, Latin America (maximum 6 words) **JEL codes:**



Patterns of regional income distribution in Uruguay (1872-2012): a story of agglomeration, natural resources and public policies

Julio Martinez-Galarraga (Universitat de València, Spain)

Adrián Rodríguez Miranda (Universidad de la República, Uruguay)

Henry Willebald (Universidad de la República, Uruguay)

1. Introduction

In the final decades of the 19th century, during the early stages of the First Globalization, Uruguay was among the wealthiest countries in the world. In its best year (1873), Uruguay occupied the fourth position in the GDP per capita world ranking, with values above those of the UK (#5), the undisputed industrial leader at that time, with a level similar to that of the US (#3) and somewhat below other Western Offshoots such as New Zealand (#2) and Australia (#1) (Bolt et al., 2018). Today, however, Uruguay ranks around number 60, with an income per capita comparable to countries located in the European periphery such as Romania and Turkey. From this perspective, the economic development of Uruguay may be described as a reversal of fortune although this long-term trajectory is not much different to that followed by other Latin American countries.

The key of the economic success of Uruguay in the second half of the 19th century is to be found in the specialization in the production and export of primary goods. Natural resources in Uruguay are abundant and most of the land is suitable for agrarian production. More than 95 percent of total territory corresponds to grassland, steppe and open shrubland (Willebald & Juambeltz, 2018) and, in fact, (almost) all territory is apt for rearing livestock and crops. One of the more classical characterizations of Uruguay corresponds to Reyes Abadie (1966) who described the country as the combination of prairie, border and harbour. In other words, Uruguay –named *Banda Oriental* in colonial times– was a region well-endowed with natural resources apt for cattle production with the best port of South America, which made of Montevideo the main "exit door" of commodities from the River Plate to the international markets.



Uruguay gained independence from the Crown of Spain in 1828. Traditionally, the country was the frontier between two empires: Spain and Portugal. This feature extended after the independence with other protagonists –Argentina and Brazil– but with similar consequences: Uruguay constituted a buffer state between two immense countries. The new country extended over an area of 176,215 square kilometers, which, to put it in comparative perspective, is twice the size of Portugal, more than 4 times the size of the Netherlands and Switzerland, or 5.5 times the size of Belgium.

While in terms of size Uruguay is larger than many European countries, its population has traditionally been very tiny. At the time of independence, its population was close to 75,000 inhabitants; it reached a million around the turn of the 20th century in a period in which the country was receiving large inflows of migrants as other Western Offshoots did. Today the population amounts to 3.5 million (around 90% of European descendent). A large part of this population lives in the capital city, Montevideo, which is home to 1.3 million people, thus concentrating around 40% of the country's current total population. The high concentration of population, working force and transportation infrastructures in Montevideo explains why some contemporary authors claimed that Montevideo acted as a "suction pump" of the country and stressed the extreme imbalance that this meant for the economic development (Martínez Lamas, 1930).

In the long run, the Uruguayan economy has exhibited an irregular trajectory that alternates periods of important productive expansion with others of deep depressions, as well as periods of openness with others of constrained international trade. While growth episodes and recessions occurred equally in open or closed periods (Bértola & Porcile, 2000), the local historiography has traditionally split the contemporary history of Uruguay into three phases associated with different "development patterns" (Bértola, 2008; Oddone, 2010). These phases are linked to the changes in the productive structures and trade regimes, i.e. to the different degrees of integration in international markets.

First, from the last quarter of the 19th century to the 1920s, the economy showed increasing exports and the formation of a domestic market (Bulmer-Thomas, 2003). This growth model, based on the production of a few primary products, was rather successful and,

_

¹ This makes Uruguay a country with a very low density of population, close to 20 inhabitants per square km, a level similar to that of Sweden or ten times smaller than Italy.



as seen, allowed the country to obtain welfare levels close to those of the core economies. This positive period came to an end with the Great Depression which had severe adverse effects on an open economy such as the Uruguayan, and the meagre performance lasted until the middle of the 1930s.

After the Second World War (WWII), the economy presented a new period of steady economic growth characterized by an increasing participation of the state in the economy, the implementation of a (truncated) process of import substitution industrialization (ISI), and improvements in personal income distribution. However, the positive evolution had finished by the end of the 1950s, and the economy entered in a long period of "stagflation" that lasted until the beginning of the 1970s.

During the first half of the 1970s, in a context of deep social and political change, the economy experienced important adjustments that resulted in a new development pattern. Increasing trade openness, financial liberalization and new regional trade agreements gave place to a new phase of economic expansion that extended until the end of the 20th century in a sort of re-globalization period. The beginning of the 21st century was however dominated by one of the deepest crises in Uruguay's history. Since 2003, the economy has nonetheless strongly recovered with a sound involvement in the international markets of commodities and important changes in the organization of primary production.

In this context, the aim of this chapter is to analyse the long-term evolution of the Uruguayan economy from a different angle, adopting a regional perspective. In so doing, we first present estimates of regional GDP for the 19 provinces (*departamentos*) that conform Uruguay nowadays. Our estimates correspond to 16 benchmark years throughout the almost century and a half that goes from 1872 to 2012. This information allows us to evaluate the main patterns of regional income inequality from the globalization of the Atlantic economy in the late 19th century until today. Further, the regional GDP database offers the possibility to examine, among other things, the magnitude of the relevance of Montevideo and its evolution over time; the impact of different trade regimes on the levels of regional inequality; or the effect of public policies during the state-led industrialization on the spatial distribution of economic activity.



With this aim in mind, the chapter is structured as follows. First, we briefly survey the main features of the Uruguayan economy from the colonial times to the present (Section 2). Then, we define the spatial unit of analysis and briefly comment the estimation methodology and sources (Section 3). Next, we present the main results and discuss our findings (Section 4). Finally, we hypothesize about the potential forces behind the evolution of regional inequality in Uruguay (Section 5).

2. Historical background

In colonial times, during the 16th and 17th centuries, the River Plate was not a particularly attractive region, being distantly placed in the far south of the Spanish Empire and lacking economically interesting resources to be exploited, such as spices or precious metals. One of the first European settlements in Uruguay (*Banda Oriental* according to its colonial name) was Colonia del Sacramento, a Portuguese military fortress founded in 1680, located across from Buenos Aires, whose foundation dates from 1580. Montevideo, also a fortress, was founded by the Spaniards in 1724 on the River Plate coast, almost 180 km from Colonia del Sacramento towards the East.

Uruguay was on the border between the Spanish and Portuguese empires, a condition which would be decisive for the creation of an independent state in 1828, with an active British participation (Bértola, 2008). Memoirs and historical chronicles agree on the exceptional conditions of Montevideo's harbour (Mulhall & Mulhall, 1892), which constitutes the best natural seaport in this part of the continent and promptly became the endpoint of trans-Atlantic routes into the region. Montevideo's port was therefore the support for Spanish navy in the colonial period and for strong international trade interests –British and French ones, particularly— in the independent period, besides to promote a thriving commercial elite (Barrán & Nahum, 1973).

Two big transformations paved the road for economic modernization in the 1870s: the wire fencing of the rural lands and the arriving of immigration flows with progressive rural producers related, fundamentally, with wool production (Barrán & Nahum, 1967, 1971). This new rural class was predominant in the zone of the Littoral of Uruguay river and extended its influence to the South in the region of the coast of the River Plate, which coincides with the



most productive lands of the territory (Millot & Bertino, 1996). In the rest of the country the rural traditionalism continued prevailing on technical and business innovations.

The following two decades were characterized by an ongoing improvement in the state communications and administrative system that, however, had to get along with numerous resistances to the central authority of provincial governments and several internal conflicts. Usually, scholars identify 1904 as the year of the last internal armed uprising and the definitive consolidation of the state as the national authority. In fact, this meant the triumph of the port-city (Montevideo) over the rest of the territory and converted the state into the constructor of the "social order" (Arocena, 1992).

In addition, the improvement in infrastructure and transports in the decades prior to First World War (WWI) favoured the integration of the domestic market. In this process the connection of the inland provinces with coastal locations, mainly with the port in Montevideo from which most exports were sent to international markets, played a decisive role, and railways were particularly important. Although the railway construction started relatively late –the first stretch was opened in 1869, with a delay partly due to the impact of civil war, called *Guerra Grande*–, by 1913 Uruguay had one of the densest railway networks on the continent, which accounted for 2,577 km (Díaz, 2017). The railway system, which was privately owned by a few British companies, was designed in a centralised way so it mainly connected distant points with the capital.²

The historical characterization of Uruguay as an agrarian economy since the 19th century is essentially based on the type of integration in the international commodity markets (jerky, leather, wool and beef). However, this type of agrarian trade specialization required the extended presence of activities that supported the commercialization of these products such as transport and storage, logistic, financial and professional services, and public services. In addition, Uruguay experienced a dynamic urbanization process that rapidly brought the administrative capital of the country, Montevideo, to the head of a macrocephalic country. Under these conditions, it is not surprising that the share of services on GDP was 45 per cent

⁻

² Although Uruguayan railways helped to integrate the national market their economic impact seems to have been much lower than in other countries based on the limited amount of social savings it generated on the economy and the low profitability obtained by the railway investments (Díaz, 2017).



in the years previous to WWI. In this evolution, the 1920s are conceived as a transition period between two development patterns (Bertino et al., 2001).

The Great Depression negatively affected an open economy such as the Uruguayan (Jacob, 1977, 1981). Then, since the 1930s, the industrialization process began, initially, in an unplanned manner and, later, with an active participation of the State in different spheres of the economy. The import substitution industrialization (ISI) –or, more properly, the stateled industrialization (Bértola & Ocampo 2012)- had a strong dynamism in the 1940s but soon faced many limitations that determined its decline in the second half of the 1950s (Arnábal et al., 2013; Bértola, 1993; Finch, 1980). The protectionist policy aimed at promoting the industrialization of the country intensified, combining import taxes and fiscal exemptions with a multiple exchange rate system and the increasing direct participation of the State in the manufacturing industry (Azar et al., 2004; Garcia Repetto, 2017). In short, high levels of protection and incentives to manufacturing industry and agriculture (industrial crops), increasing real wages, lower economic inequality, and the expansion of the public expenditure were typical characteristics of the state-led industrialization process in Uruguay (Bértola, 1993, 2005). All this was facilitated, in the second post-war era, by the accumulation of international reserves during the conflict and the impressive improvement in the terms of trade related with Korean War.

State intervention is usually held liable for the crisis that faced the economy from the 1960s onwards because it would have promoted the growth of a non-competitive industrial sector and inhibited capital accumulation in agriculture affecting the comparative advantage of the economy (OPP, 1972). However, the intervention of the State was decisive for promoting the diversification of the economy and creating better conditions for economic growth and equality (Bértola, 1993), but it never solved the structural restrictions. The protectionist policy, typically conceived with short-term character, ended protecting the low technological dynamism of the local firms, the scarce interest and education in technical issues of the entrepreneurs, the comfortable self-confinement in the internal market, as well as the absence of policies of qualification of the workforce.

The 1960s were characterized by economic stagnation and high inflation which extended into the 1970s when a *coup d'état* and the institutionalization of a military government promoted a renewed modality of development (Astori, 2001). Bilateral trade agreements with



Argentina and Brazil and the liberalization of the financial market (exchange rates and capitals) characterized the new growth strategy (Notaro, 1984) identified with a reglobalization or non-traditional export led growth (Oddone, 2010). The progressive openness of the economy, the promotion of international integration programmes (Mercosur) and the financial liberalization continued, as general pattern, in the 1990s (after the democratic restoration in 1985).

Economic growth in the 1990s was based on production oriented to services and exports to Mercosur, founded on a stable exchange rate relationship with the two large neighbours, Argentina and Brazil. The devaluation of Brazil in 1999 and the Argentinean crisis of 2001 broke that model and it led to financial and economic collapse in 2002 (Mordecki, 2017). Thus, the beginning of the 21st century was dominated by one of the deepest crises, with significant fiscal and trade imbalances, financial bankruptcies, and a strong decrease in real incomes. Since 2003, the economy has nonetheless decisively recovered with a significant presence in the international markets of commodities and important changes in the organization of primary production (Errea et al., 2011). In this period, policy instruments to support competitiveness have multiplied. Capacity in entrepreneurial management and sector instruments added to the traditional export, innovation and investment promotion creating a denser policy structure to encourage advanced industries (as biotechnology and pharmaceutical) (Bértola et al., 2014). Simultaneously, an increasing interest in the local development of the different regions of the country has been notorious, including specific legal norms and public policies destined to promote productive and social changes in the interior provinces (Rodríguez Miranda, 2014).

All in all, over the last century and a half the Uruguayan economy experienced recurrent ups and downs. While GDP per capita multiplied by six between the 1870s and today, this increase did not prevent the growing gap in income per capita with the most developed economies, in spite of a promising beginning. In the 1870s Uruguay was among the wealthiest countries in the world close to the US levels, as Figure 1 shows. From then on, divergence is plainly visible and Uruguay rapidly lost ground. On the eve of WWI, the relative fall with respect to the US economy had been substantial (40%) and continued afterwards throughout the 20th century to reach an all-time minimum during the 2002 crisis (20%).



[FIGURE 1 HERE]

This long-run economic evolution has its correlate in the demographic trajectory of the country. Low demographic density, uneven distribution of population in the territory and high urban predominance of the capital –Montevideo– are structural demographic characteristics of the country (Pellegrino, 2010). In the colonial times, the *Banda Oriental* was a scarcely populated territory. The migrant flows from Spain were important and they created several towns with the aim to restrain the Portuguese advances on the Spanish Imperial possessions. The dissolution of the Jesuit Missions in the last quarter of the 18th century also meant the arrival of numerous indigenous communities (*guaranies*) (González & Rodríguez, 1990), and the inflow of African slaves was important too (Borucki et al., 2004), arriving from Brazil (in the North) or directly from Africa. After Independence, immigration was promoted by liberal governments that argued that populating the territory meant increasing the wealth of the nation, the military power of the State and contributed to define the limits with the neighbour nations.

European immigration settled fundamentally in Montevideo, where its presence was significant since colonial times (in 1860, almost half of its inhabitants weres foreign and, in 1908, almost a third). In the first decades of the 20th century, in addition to Spanish and Italian immigrants, the inflow of immigrants from Middle East and East Europe intensified. The entry of immigrants came to a halt in the 1930s but resumed after WWII. However, from 1960 onwards, Uruguay became a source of emigrants more than a destination for immigrants (Pellegrino, 2014). The worsening of the economic situation, and the installation of the military dictatorship in 1973 would explain the increase in emigration. By the end of the 20th century, almost a half-million Uruguayans resided outside the national territory (Cabella & Pellegrino, 2005). The deep economic and financial crisis in the early 21st century implied renewed impulses to emigration reaching almost 150.000 persons in 2000-2008 (Pellegrino, 2010). In the last decade, the trend however is being reversed with new immigrant waves arriving from Latin American countries (Dominican Republic, Venezuela, Colombia) while there is also an important return of former emigrants.



3. GDP estimates at the province level: sources and methods

In order to assess the long-term evolution of economic development in Uruguay from a regional perspective we obtain estimations for 16 benchmark years from 1872 to 2012. These benchmarks combine our own estimations –corresponding to 1872, 1884, 1890, 1895, 1900, 1908, 1936, 1955, 1975, 1986, 1990, 1995, 2000 and 2005– with the available estimates for 1961 and 2012. The latter two correspond to official data produced by state organisms (BROU and OPP-INE-BCU, respectively) but only that referred to 2012 (OPP, 2016) had the support and advice of the institute that elaborates the National Accounts. The territorialized information of GDP that we obtain refers to the current 19 provinces.

Since the 18th century, different regional divisions were created in Uruguay following economic and political criteria (Zubillaga, 1977; Yagüe & Díaz-Puente, 2008). The governors of the provinces (*Intendentes*) were political leaders appointed by the national government, and to a large extent this responded to the need to prevent the local powers from rising up against the power of the country's capital. Only after the Constitution of 1918, the provincial governments began to be elected and enjoyed certain autonomy, with exclusive responsibilities that were established by law in 1935 (Arocena & Marsiglia, 2017). The current administrative division was configured at the end of the 19th century with the last changes in political boundaries³.

The final provincial division of Uruguay, as it is shown in Figure 2, configures spaces of diverse dimension. The province of Montevideo is the smallest one, it occupies just 530 square km and the biggest, Tacuarembó, has an area of around 15,500 square km. As a costal nation, 8 out of the 19 provinces have access to the sea. Plus, the country has a mild weather with abundant rain, so the mostly flat terrain is run by large and mighty rivers, being the biggest one the Uruguay river, which represents a natural border with Argentina.

[FIGURE 2 HERE]

Our estimation of Uruguayan regional GDP is based on a strategy that, in broad terms, combines direct estimates for some sectors and years when data are available, the methodology developed by Geary & Stark (2002) (hereafter G-S) and, finally, the use of

_

³ In 1880, the provinces of Río Negro and Rocha were created from the subdivision of (then larger) Paysandú and Maldonado, respectively. In 1884-1885, Artigas, Flores, Rivera and Treinta y Tres were created from the territories corresponding to Salto, San José, Tacuarembó, Cerro Largo and Lavalleja, respectively.



specific criteria to distribute sectoral value-added (VA) in some particular activities. The choice of our benchmarks is subject to the information availability (mainly census data). In this instance, although the availability of Population Census in Uruguay is to some extent limited, the publication of agrarian censuses, with territorialized information about production was more frequent and we count as well with industrial censuses that allow a direct estimation of regional production.⁴ All in all, the database combines information from three previous works that estimate regional GDPs for Uruguay in different historical periods (Castro & Willebald, 2019; Martinez-Galarraga et al., 2019; Rodríguez Miranda & Goinheix, 2018).⁵

These benchmarks are nonetheless historically meaningful. The first estimates corresponding to 1872-1908 represent a period of strong dynamism related to the First Globalization. Castro & Willebald (2019) propose regional GDP estimates for six years and 12 economic sectors in a study that combines several estimation techniques, including the information in the Agrarian Censuses, the standard G-S methodology and the use of alternative procedures (e.g., trading license taxes) to distribute national values.⁶

Estimates corresponding from 1908 to 1975 capture the evolution of the regional economies in Uruguay from the last years of the First Globalization, going through interwar years, the beginning, the zenith and the end of the state-led industrialization, and up to the mid-1970s with the outbreak of the oil crisis and the constitution of the military government. In this case, the estimations come from the study by Martinez-Galarraga et al. (2019). These authors combine again direct production estimates, the G-S methodology and distribution keys obtained from official reports to produce GDP for Uruguay's provinces, in this case, disaggregated in 11 economic sectors.⁷

⁴ Population Censuses: 1852, 1860, 1908, 1963, 1975, 1985, 1996, 2011. Agrarian Censuses: 1852, 1872, 1900, 1908, 1916, 1924, 1937, 1943, 1951, 1956, 1966, 1970 and 1980. Industrial census: 1936 (there are three additional industrial censuses for 1975, 1988 and 1997, but we used other sources for the estimation).

⁵ The full details of the estimation procedures and the sources used in each one of the years included in this study can be found in these works.

⁶ The economic sectors considered are: 'Agriculture' –livestock and crops–, 'Mining', 'Construction', 'Manufacturing', 'Utilities', 'Wholesale and retail trade', 'Government', 'Financial intermediation', 'Education, health, and other community, social and personal services', 'Transport and storage', 'Communications' and 'Real estate activities'.

⁷ 'This work includes the following sectors: 'Agriculture', 'Manufacturing', 'Utilities', 'Construction', 'Wholesale and retail trade, restaurants and hotels', 'Transport', 'Communications', 'Financial intermediation', 'Real estate activities', 'Government', 'Education, health, social work, and other community, social and personal service activities'.



In the 1970s a new period of openness, financial liberalization and international regional integration —whose base was conformed during the military government— began, and extended until the 1990s. Then, Uruguay suffered the deepest economic crisis in the last one hundred years in 2001-2002 and emerged in a new international context in the 21th century. This period is captured with the GDP estimates proposed by Rodríguez Miranda and Goinheix (2018). In this study the standard methodology developed by G-S (2002) is applied to data (wages and employment) from household surveys to estimate industries and services, with some adjustments to the G-S method for specific sectors (in special, for industrial branches). To estimate agriculture GVA the authors build value indices for different provincial product baskets taking as base year the official estimations available for 2008. Finally, direct estimation is made in some particular sectors (e.g. mining and energy) and distribution keys are used in other cases (e.g. fishing). The authors present annual estimates for 10 economic sectors and we take as benchmarks years those corresponding to (around) 5-years periods: 1986, 1990, 1995, 2000, 2005 and 2012.8

Finally, our estimates require two additional data series: total and sectoral GDP in current prices and population by province. We use Uruguay's GDP series disaggregated for 11 economic sectors, provided in Román & Willebald (2019), annually, from 1870 to 2017. In turn, population censuses offer provincial data for census years (Instituto Nacional de Estadística). The recent estimates of the Population Programme, Universidad de la República, Uruguay, offer new annual series of total population (Nathan, 2014; Pellegrino, sf). To obtain provincial figures for the missing years, when necessary, we interpolate the intercensal years and re-scale to these recent estimates of total population.

4. Results: stylized facts of regional income distribution in Uruguay

4.1. Montevideo: a suction pump?

From an economic –and also demographic– perspective, the relevance of Montevideo is one of the most remarkable features of the regional history of Uruguay. If we look at the

⁸ The ten economic sectors considered are: 'Agriculture (livestock, crops and forestry) and fishing', 'Mining', 'Manufacturing', 'Construction', 'Utilities', 'Restaurants and hotels', 'Transport and logistics', 'Telecommunications', 'Services to companies, real estate and financial', 'Other services (including public administration)'.

⁹ We would like to thank Prof. Cabella for this suggestion.



distribution of Uruguay's GDP by province (Table 1), the concentration of economic activity in Montevideo is very high -and even larger than in population-. It currently accounts for more than half of Uruguay's GDP (51.3%). Besides Canelones, which represents a significant proportion of the national income, close to 10%, only Maldonado and Colonia reach values around 5% of Uruguay's GDP. The remaining provinces show in general a small participation that barely arrives to 3% and, importantly, an evolution characterized by a sustained declining share over time.

The prominent role of Montevideo is thus one of the main stylized facts that emerges from Table 1 although in the long term some fluctuations can be observed. During the decades of the First Globalization, the share of Montevideo in the national GDP was a historical low, yet with a large share around 45-48%.¹⁰ Importantly, in the interwar years (1908-1936) an increase in the concentration of economic activity in Montevideo took place reaching a share close to 55%. This share hardly changed in the next decades (1936-1961) during the years of the state-led industrialization. However, by 1975, Montevideo had again increased its participation in Uruguay's GDP and from then and up to 2000 the share oscillated between 57-59%, reaching an all-time maximum in 2000. Interestingly, the first decades of the 21st century, after the severe economic crisis and the beginning of a new agro-export growth model with state competitiveness support policies, have witnessed a substantial reduction of almost 10 points in the share of Montevideo which stands, as seen, currently around 51% (a value similar to that of the interwar years).

[TABLE 1 HERE]

4.2. Regional inequality: a convergence story?

Combining our estimates on regional GDPs and population, we use GDP per capita at the province level to explore the long-term evolution of regional inequality in Uruguay. Methodologically, we follow the approach suggested in the empirical literature on economic growth (Barro and Sala-i-Martin, 1991). We thus focus on the existence of economic convergence/divergence across regions and over time, examining the hypothesis of σ -

_

¹⁰ In 1890 this share increased to 54% probably as a result of the consumption and speculative boom that preceded to the financial and economic crisis of that year. This was nonetheless a transitory shock and the share of Montevideo returned to 48% in 1895.



convergence, that is, if for a given a set of economies, the dispersion or inequality in terms of income per capita tends to decrease/increase over time.

To measure the dispersion of income per capita over time, we first compute a simple coefficient of variation (SCV), a widely used indicator in the empirical growth literature. To consider the potential effects on the results that may arise from differences in the size of the provinces in demographic terms, we also present the population-weighted coefficient of variation (WCV) (Williamson 1965, p. 11). If the WCV is above the SCV it implies that the most populated provinces are in the extremes of the income distribution. In the case of Uruguay, considering the provinces' population appears to be crucial given that Montevideo concentrates a large share of the county's population. Figure 3 presents the long-term evolution of regional inequality in Uruguay.¹¹

While both indicators, the SCV and the WCV, depict a similar trend over time, some differences in the levels of inequality can nonetheless be appreciated. In general, the SCV is slightly below the WCV, indicating that the most populated provinces have tended to have higher GDP per capita over time and that the least populated provinces have tended to be the less dynamic. If we focus on the WCV, we see that the years of the First Globalization were characterized by high levels of regional inequality and by a general although rather slight trend towards the reduction of disparities. Further, this trend intensified during the interwar years and continued from then on until the early 1960s, when a historical minimum in regional inequality levels in Uruguay was reached. Thus, the period of sustained convergence, from the last decades of the 19th century to the 1960s, covered the agro-export model corresponding to the era of the First Globalization, the troublesome interwar years and also the period of economic growth, industrialization and increasing State intervention during the 1940s and 1950s.

However, after this long-term trajectory of convergence, regional inequality increased significantly to achieve again high levels in the 1990s, close to those registered at the beginning of the 20th century, at the end of the First Globalization. What is nonetheless

¹² There are some exceptions though. In the 1950s and 1960s, both indicators show similar levels, and in the late 1980s, the SCV sheds higher values than the WCV.

¹¹ Similar results are obtained if alternative inequality indicators (Gini, Theil, MLD) are used.

¹³ The peak in 1890 might be related with the economic boom that preceded the financial and productive crisis of that year.



particularly interesting in the case of Uruguay is the evolution of territorial disparities in the 21th century. Figure 3 shows a clear reversal of the trend in the 2000s after the deepest economic crisis of Uruguay and the new agro-export growth model. This means that the U-shaped evolution that ended with high regional inequality in the 1990s, has given way to a new process of regional income convergence.

[FIGURE 3 HERE]

4.3. Persistence, mobility, reversals of fortune and other stories

Once presented the general trends of the distribution as a whole, to gain further insights we next focus on the evolution of income per capita for the individual provinces. Table 2 shows the Uruguayan provinces according to their relative GDP per capita (Uruguay=100) in all our benchmark years. On the one hand, some persistence at the top and the bottom can be seen, with some departments consistently occupying these positions. However, a significant degree of mobility is also observed with provinces rapidly improving their relative position or falling behind. Based on this evidence, we classify Uruguay's provinces in five different groups: 1) persistently rich; 2) persistently poor; 3) middle income; 4) reversal of fortunes; 5) convergent.

[TABLE 2 HERE]

First, Montevideo and Río Negro are two persistently rich provinces. The leadership of Montevideo is evident as, on average, it exceeded the mean of the country by 45 per cent, showing the highest ratio in 1890 (190) and the lowest in 1961 (120). As regards the evolution, it was more clearly above the average in the period between 1872 and 1936 (54 to 90 per cent), than from then on (from 20 to 41 per cent). Nowadays, the GDP per capita of Montevideo exceeds the average of Uruguay by 30 percentage points. The other rich province is Río Negro. This province traditionally had an economic structure based on agriculture, but the combination of abundant natural resources, with low population density and the historical presence of big industrial firms, would explain the relatively high income per capita in the province from the 19th century until the 1950s. Afterwards, its income per capita evolved around the average of the country until the beginning of the 21st century, when a new increasing trend started.



At the other extreme, we find the persistently poor provinces. At the beginning of our period of study they were between 25 to 60% below the national average; today they are still between 15 to 40% below. This group includes provinces in the centre and north-east of the country (Cerro Largo, Durazno, and Treinta y Tres) and those bordering Montevideo (Canelones and San José). On the one hand, the former three evidence a continued specialization in extensive livestock, developed with natural grassland on low-quality soils, which implied reduced incomes per capita in historical perspective. However, Canelones and San José are quite different cases. They have the particularity of showing a high heterogeneity within their respective territories. In a large part there is a rural based economy specialized, in addition to cattle, in crop products, dairy industry and vineyards, which probably places these provinces in a favourable position in the national context. In fact, this agricultural development benefits from the proximity to Montevideo (the big market). However, on the border with Montevideo and within its metropolitan influence, dormitory cities and villages have developed over time, largely informal settlements, with a population that works in Montevideo. Then, the border areas with Montevideo host an important population but have a low generation of local VA. Hence, spatial spillovers due to proximity to Montevideo did not seem to have generated a positive net effect for these provinces. On the contrary, both have traditionally been poor and remain so.

A third group of provinces can be characterised as middle-income. This group is integrated by five provinces located in the Littoral and south of the country (Colonia, Flores, Paysandú, Salto, Soriano). They have enjoyed the best soils of the territory, so intensive agricultural activities have developed there in the course of the 20th century (crops, dairy industry) providing a large supply of foodstuffs. In addition to this agricultural specialization, these provinces were also favoured by the establishment of modern means of transport and communications, the historical influence and accessibility to a large urban centre such as Buenos Aires –sometimes as nearby as Montevideo, especially in the 19th and the first decades of 20th century– and the influx of progressive immigrants.

While these three first groups are characterised by a marked persistence over time, other provinces have experienced a remarkable mobility over time. A fourth group of provinces includes those that experienced a clear reversal of fortune: they started with relatively high income but eventually became poor provinces. While these provinces exceeded by more than



10 points the national average in the 1870s, by 1908, at the end of the First Globalization, they were already below that average (30-50%). This was indeed a negative and rapid reversal of fortune from rich to poor provinces. Further, they remained there for most of the 20th century. This group includes the northern provinces of the country (Artigas, Rivera, Tacuarembó) and Rocha, in the border with Brazil in the East. In general, the combination of large natural resources, with large herds (livestock and sheep), with low density of population made possible to generate significant amounts of VA distributed among few inhabitants. However, this specialization in cattle and the absence of structural change soon proved its limitations for long-term growth. As early as the beginning of the 20th century cattle production gave signs of stagnation and no alternative activities were developed.

Finally, a last group includes the convergent provinces, which in this case experienced a somewhat positive reversal of fortune that allowed them to reduce the gap and even catch up with the average of the country. This group includes Florida, Lavalleja and Maldonado. The most outstanding case is Maldonado, a province that started the 20th century –together with Lavalleja- being one of the poorest provinces but nonetheless occupied the top positions of the ranking from the 1980s onwards. Maldonado based its success on the specialization in tertiary activities (fundamentally services) and big pushes of the construction (from the 1970s) linked to tourism and financial sectors (Rodríguez Miranda & Goinheix, 2018). Florida and Lavalleja, both followed a similar evolution, with a sustained improvement from 1908 up to 1960s but then lost ground mainly after the late 1980s to recover again with the new century, after the 2001 crisis. It should be noted that, even with the improvement of per capita income over the period, these provinces have remained below the country's average. Florida converged thanks to its specialization in an intensive agriculture (mainly dairy industries and industrial crops). Lavalleja had several characteristics that could place her together with the poor provinces of the country. However, its low population and productive diversification (with some relevant sectors at a national scale like cement, soft drinks and milling) allowed improving the per capita income of the region (Rodríguez Miranda et al., $2017).^{14}$

¹⁴ Lavalleja, together with Treinta y Tres and Rocha, is under the influence of Maldonado, which has developed as an urban center of reference and received migration from the eastern region of the country (Martínez et al., 2016).



4.4. The changing economic geography of Uruguay

From a geographical point of view, at the beginning of the 1870s, the Uruguayan economy was turned towards the north, with the only exception of Montevideo in the South (Figure 4). As mentioned before, in colonial times and the first post-independence decades, Montevideo was an economic centre including port, financial services, commerce, and political and military power. However, an important part of the country's incomes derived from the livestock wealth, and the North has traditionally disposed huge sheep and bovine stocks, combined with low population. Simultaneously, in a context where distances and traditional means of land transportation constituted an important limitation, the economic dynamics of the North, rather than the market of Montevideo, would have been influenced by the market that represented the Uruguay River coast with Argentina and the south of Brazil.

In the Uruguayan historiography, the features of the occupation of the territorial space in the century previous to 1850 have been discussed. The most traditional literature considered Montevideo as the centre of gravity of the territory with the idea that the expansion of the markets (and population) occurred from Montevideo to the rest of the territory. However, Moraes (2008) argues that this process included two axes of expansion: the "sur-atlántico", that extended the influence from Montevideo to the rest of the territory, and "norte-misionero", which included active markets of goods and factors and that, historically, represented the long-run influence of the Misiones Orientales in the north of (current) Uruguay. Our results support this latter representation, which seems to appropriately reflect the regional characterization of Uruguay in the early decades of the First Globalization.

During the last third of the 19th century, the Uruguayan economy gravitated to the West (Littoral) and South. Therefore, in the beginning of the 20th century the provinces with high incomes per capita were more dispersed in the territory. The "Littoral" region –on the Uruguay River, along the border with Argentina–, constituted a zone which the local historiography identified with progressive agrarian producers, modern methods of production, and a definite "capitalist mentality" (Barrán & Nahum, 1978). In the first decades of the 20th century (1908-1936), the geographical pattern continued in movement and the

¹⁵ Black colour regions have an income per capita that exceeds the mean of the distribution plus one standard deviation (σ); the second darker tone corresponds to an income per capita between the mean and this plus σ ; and the other two categories correspond to the ranges: [mean, mean- σ] and below mean- σ .



South presented the highest economic dynamism. Thus, the structure inherited from the First Globalization progressively decanted towards the South. Here, the emergence of Maldonado stands out, and will be consolidated.

On this spatial structure will operate the state-led industrialization which, as we have seen, had an equalizing effect in terms of convergence which also reflects in a greater dispersion of economic activity in space. This result reinforces the idea that industrialization in Uruguay did not have adverse consequences in terms of regional inequality. At the end of the ISI process (1955-1961), the majority of the provinces presented middle GDP per capita, only one province –Rivera– was typically poor, and the rich provinces occupied places spread out in the territory. In general terms, we observe a geographical pattern in which the provinces with the highest incomes are located in the Littoral and in the South, forming a sort of "L" shape, similar to that identified in more recent literature (in the 1990s).

Since then, no noteworthy changes in the economic geography of Uruguay are observed. With the exception of some islands of progress, the rest of the provinces have remained around the country's average or have remained relatively poor. Some scattered rich provinces in the south (Montevideo), west (Colonia), east (Maldonado), centre (Flores) and Littoral (Río Negro) have been consolidated, although their dynamism has varied over time. In general, the provinces with the lowest income per capita are located in the border with Brazil and the adjacent provinces to Montevideo.

[FIGURE 4 HERE]

5. What explains the evolution of regional inequality over time?

In the previous pages, we have presented the main patterns in regional income inequality in Uruguay since the late 19th century. In what follows, we hypothesize about the forces that might be behind such patterns. In so doing, we rely on different theoretical strands. On the one hand, the Neoclassical trade theory argues that regional incomes differ because of



differences in factor endowments and factor prices. Yet, the increase in trade and factor movements leads to factor-price equalization across regions and convergence. 16

On the other hand, geography can also influence the distribution of regional income. Two different views are usually considered: 'first nature' and 'second nature' geography. The first concept refers to pure geography elements such as the environmental, ecological or physical conditions of countries (Gallup et al., 1999). 'Second nature geography' is represented by New Economic Geography (NEG) models in which agglomeration forces may give rise to the concentration of economic activity and consequently lead to an uneven distribution of income across locations (Fujita et al., 1999).¹⁷ In short, NEG argues that market integration could initially lead to regional divergence, although in more mature stages of the process, when trade costs are sufficiently low, the trend may be reversed and convergence appear (Puga, 1999).

This non-monotonic evolution seems to be more in line with the historical experience. Williamson (1965) argues that throughout the economic development process regional inequality exhibits an inverted U-shaped pattern: in the early stages of modern economic growth industrial activity concentrates in specific locations while the rest of the regions remain largely agricultural, and therefore income inequality across regions increases. However, over time these disparities eventually tend to disappear through the spread of industrialization and the homogenization of economic structures across regions.

In the case of Uruguay, we have shown that the evolution of regional inequality was characterized by regional convergence along the century that goes from the early 1870s up to the 1960s. From then on, regional inequality experienced an increasing trend for almost three decades. However, after the severe economic crisis of 2001-2002, divergence came to a halt and territorial disparities began to decrease again. The Uruguayan experience thus does not reproduce the U-inverted pattern which, actually, appears in a good number of early industrialized countries in Western Europe, and the US. The marked specialization in primary

theorem requires a long list of strict assumptions (Samuelson, 1949) to hold the conclusions.

17 These models assume imperfect competition, increasing returns to scale and reductions in transport costs, which may generate pecuniary externalities in firms and workers' location choices.

¹⁶ It should be noted, however, that market integration may also lead to divergence because regions may differ in factor endowments and differences in regional specialization may increase (Slaughter, 1997). In any case, FPE



production and the absence of a strong industrialization process since the 19th century –i.e., the slow advance of structural change–, may explain this result.

In this respect, some additional issues may be highlighted. First, the performance of Uruguay in terms of the evolution of spatial disparities is to a large extent comparable to that followed by the Scandinavian countries, characterized also by abundant natural resources, low population density and late industrialization. These countries show a pattern of regional inequality in which convergence was the norm since the late 19th century until the oil crisis in the 1970s, when divergence big time arrived (Enflo et al., 2014; Rosés & Wolf, 2019). Second, industrialization—developed under the umbrella of the state after the 1930s—, did not foster regional imbalances, but the opposite. Third, if we put in a more global perspective the divergence recorded since the 1970s, Uruguay does not represent an exception given that in most countries regional convergence came to a halt in the 1980s and is, in general, on the rise again (e.g. Lessmann, 2014). Lastly, what makes the Uruguayan experience different is that after the economic crisis of 2001-2002, divergence came to a halt and territorial disparities began to decrease again. This new period of convergence thus differentiates the country from the general pattern of increasing regional divergence in the last decades. 19

What forces might have shaped this evolution of regional inequality in Uruguay? One of the main findings arising from the evidence presented is the large share that Montevideo represented, both demographically and economically, over time. It is possible to hypothesize that advantages derived from geography played a role in the early economic success of Montevideo. In particular, access to sea and the fact that the city was built around a natural port with excellent conditions may explain the concentration of economic activity (and people) in the capital. This 'first nature geography' characteristic conferred Montevideo a privileged access to international markets, and this natural advantage became crucial throughout the 19th century as international trade thrived, particularly during the years of the First Globalization.

Agglomeration, or 'second nature geography' forces, would have thus reinforced the initial natural advantages enjoyed by Montevideo. In this process, a good number of services

_

¹⁸ This evolution is also shared with other Latin-American cases such as Mexico (Aguilar & Badia-Miró) and Chile (Badia-Miró) which are considered in other chapters of this book.

¹⁹ The effect of the Great Recession was, at least in the south of Europe, the opposite (see Diez-Minguela et al., 2018 for Spain, and Petrakos & Psycharis, 2015, for Greece).



related with the flourishing trade activities emerged (banking, finances, transport, commerce) and, likewise, manufacturing and construction activities, concentrated on the capital as its population increased. Montevideo then became an important urban agglomeration in the area, a sizeable market for final goods itself, and, to put it in Marshallian terms, a large market of skilled-labour.²⁰

While Montevideo concentrated a great share of production and population, regional inequality slightly decreased from the late 19th century to WWI and this trend was accentuated during the interwar years. This result points to the existence of other relevant forces that were able to offset the NEG-type agglomeration forces described above. Here, the arguments provided by the traditional trade theory may help explain regional convergence. The availability of natural resources makes almost the whole of Uruguay a country apt for agrarian production. This comparative advantage in a period in which trade was booming in the Atlantic economy –and considering the limited size of the domestic market– explains that most of the agrarian production was oriented towards exports, mainly from animal origin (jerky, leather, wool, beef). Under these circumstances, all regions specialized in primary production and benefitted from international trade. Further, the integration of the domestic market with the construction of the railways that connected the inland and landlocked provinces of Uruguay with the port of Montevideo would have reduced trade costs and reinforced regional convergence during the First Globalization and the interwar years. Towards the WWI, the railways system was practically complete and, since the 1920s, the motor transport (passenger and cargo transport) evidenced a true transport revolution (Bertino et al., 2005). This innovation reinforced the previous evolution and was key for the expansion of the internal market in the next development stage.

Interestingly, after the troublesome years of the Great Depression, regional economic convergence continued at a considerable pace. However, in this case, the explanation and drivers of this convergence substantially differed from those of the previous period. Since the late 1930s and for at least the next two decades, Uruguay evidenced a high degree of state intervention in the economy during the so-called import substitution policy period. In

.

²⁰ A similar argument could be made, although to a lower extent, to explain the economic dynamism in these years of the Western provinces of the country, located around the Uruguay river. They enjoyed a double advantage: on the one hand, they could rely on coastal shipping (which increased in volume up to 1912) and, on the other, they benefited from a good access to the Argentinian market.



addition to the production for the domestic market that sought to substitute imports, due to the size of the Uruguayan economy, the most important industries were very much based on primary products—leather, wool, beef— and oriented to foreign markets. So, the location of natural resources was, frequently, also a strategic factor. In a context in which the railway system had already developed, and transport costs between some inland regions and Montevideo's port were relatively low, industry had an important development in some provinces where agricultural raw materials were located. Therefore, a policy that altered the relative prices favouring specific industrial branches—and the existence of local entrepreneurs or foreign investors willing to carry out these activities— could explain why some industries may have had an incentive to locate far away from the main urban agglomeration in the country (e.g. Paysandú, Río Negro, Colonia).²¹

In other words, in the case of Uruguay, state intervention in the economy through economic policies, legislation and direct participation as a producer meant that the ISI policies opened business opportunities for provinces other than Montevideo. As a result, in these decades of industry-promotion, the spatial location of production was affected by the degree of State intervention through economic policy, with important implications. This result shows that, contrary to other experiences (especially in the core countries), industrialization in Uruguay led to a more even distribution of economic activities across space. Therefore, it implies that the state-led industrialization policy, between the 1930s and the 1960s, was an equalizing force for regional income distribution, in a similar way that it was for personal income distribution (Bértola, 2005).

In the end of the 1950s, the exhaustion of a strategy based on the substitution of imports was evident and the balance of political and social forces significantly changed (Bértola, 1993). In 1958, the Nacional Party (or *Blanco* Party), allied with important rural sectors, won the national elections after 90 years representing the second national political force (behind the *Colorado* party). This was the beginning of an economic liberalization process that, nonetheless, would advance slowly during the 1960s (Finch, 1980).²² The multiple exchange system was eliminated, trade and exchange controls were dismantled and tariffs to exports

.

²¹ Even the agriculture sector benefited from the government support of several industrial crops (sunflower, sugar cane, flax) (Finch, 1980).

²² The passing of the Law No 12.670 called Law of Exchange and Monetary Reform represented the most important legal milestone in this period (December, 1959).



and imports re-structured. This was the beginning of a gradual and irregular process that would culminate with the definitive change of model of the 1970s.

The new growth model in the 1970s was based on low state intervention, with a greater emphasis on the development of the financial and services sectors. On the one hand, the pattern of international trade was largely oriented towards neighbouring countries, with bilateral agreements, which ended in the 1990s with the signing of the Mercosur treaty. This was detrimental for extra-regional trade, which had been one of the sources of economic growth, with equalizing power between provinces in the previous stages. Without the previous levels of protection, many of the agro-industrial developments (textiles, clothing, leather, food) that had formerly prospered in the inland provinces of the country began to decline. This situation was aggravated by the 1982 financial crisis and the external debt crisis that characterized the 1980s (the "lost decade").

In the 1990s, the deepening of globalization in the world and the influence of the Washington Consensus in Latin America generated a new stage in the national economic growth model based on a low state intervention in the economy. Governments pursued a strategy aimed at making Uruguay "a country of services", becoming the financial centre of Argentina and the logistic centre of Mercosur. This clearly benefited productive activities based on Montevideo, as well as few regional economies such as Maldonado and Colonia, with close ties with the Argentinean economy (through tourism, financial services and construction). GDP grew until 1998, but in a context of increasing regional inequality, which boosted at the end of the 1990s reaching levels similar to those registered at the beginning of the 20th century. Then, this economic model, biased towards services and highly dependent on Mercosur (with adverse effects on a balanced regional growth), finally collapsed with the devaluation and financial crises of Brazil and Argentina in 1999 and 2001, respectively.

After the deepest economic crisis of Uruguay in 2001-2002, a new process of regional income convergence started. This could be related to the important changes experienced by the economy with a new extra-Mercosur orientation of exports (mainly EEUU and China) and new set of policies to promote exports' competitiveness. In fact, in the 2000s the Uruguayan economy maintained a sustained growth trajectory, characterised by a new wave of public-private institutions, the implementation of reforms to promote agro-industrial sectors, and the adoption of policy actions that positively affected transversally to different



sectors (Bértola et al., 2014). All in all, public policies would again be behind the more balanced regional growth, this time promoting the addition of value to agro-industrial export products and related productive services. In any case, taken together, our analysis of Uruguay clearly suggests that countries in the periphery may have experienced a different pattern of spatial development and regional inequality over time compared to that of the core countries.

References

- Arocena, J. (1992) "El Estado, la descentralización y la iniciativa local en Uruguay". In CIEPLAN, *Políticas Sociales, Mujeres y Gobierno Local*. Santiago de Chile, Ed. Dagmar Raczynsky y Claudia Serrano.
- Arocena, J. and Marsiglia, J. (2017). *La escena territorial del desarrollo. Actores, relatos y políticas*. Ed. Taurus, Montevideo.
- Arnabal, L., Bertino, M. and Fleitas, S. (2013) "Una revisión del desempeño de la industria en Uruguay entre 1930 y 1959", *Revista de Historia Industrial*, n.o. 53, pp. 143-173.
- Astori, D. (2001) "Estancamiento, desequilibrios y ruptura, 1955-1972". In Instituto de Economía, *El Uruguay del Siglo XX. La Economía*, Editorial Banda Oriental-Instituto de Economía, Montevideo.
- Azar, P., Bertino, M., Bertoni R. and Garcia Repetto (2004) "¿De quiénes, para quiénes y para qué? Impuesto cambiario y subsidios en el Uruguay (1937-1959)". *Boletín de la Asociación Uruguaya de Historia Económica*, 3, 20-32.
- Barrán, J. and Nahum, B. (1967) *Historia Rural del Uruguay Moderno*, 1851-1885. Ed. EBO, Montevideo.
- Barrán, J. and Nahum, B. (1971) *Historia Rural del Uruguay Moderno*. Tomo II: 1886-1894, Ed. EBO, Montevideo.
- Barrán, J.P. and Nahum, B. (1973) *Batlle, los estancieros y el Imperio Británico, Tomo I: El Uruguay del Novecientos*. Montevideo: Ediciones de la Banda Oriental.



- Barro, R.J. and Sala-i-Martin, X. (1991) "Convergence across States and Regions", Brookings Papers on Economic Activity, No 1, pp. 107-182.
- Bertino, M., Bertoni, R., Tajam, H. and Yaffé, J. (2001) "La larga marcha hacia un frágil resultado. 1900-1955". *En El Uruguay del Siglo XX. La Economía*, Montevideo: Ediciones Banda Oriental Instituto de Economía, pp. 9-63.
- Bértola, L. (1993) La industria manufacturera uruguaya 1913–1961: un enfoque sectorial de su crecimiento, fluctuaciones y crisis. Facultad de Ciencias Sociales de la Universidad de la República y Centro Interdisciplinario de Estudios sobre el Desarrollo Uruguay, Montevideo, Uruguay.
- Bértola, L. (2008) "An overview of the economic history of Uruguay since the 1870s". EH. Net Encyclopedia, edited by Robert Whaples. March 16, 2008. URL http://eh.net/encyclopedia/article/Bertola.Uruguay.final
- Bértola, L., Isabella, L. and Saavedra, C. (2014) "El ciclo económico de Uruguay, 1998-2012". *Documentos de Trabajo N*° *33, Programa de Historia Económica y Social*, Unidad Multidisciplinaria, Facultad de Ciencias Sociales, Universidad de la República.
- Bértola, L. and Ocampo, A. (2012) *The economic development of Latin America since independence*. Oxford University Press, UK.
- Bértola, L. and Porcile, G. (2000) "Argentina, Brasil, Uruguay y la economía mundial: una aproximación a diferentes regímenes de convergencia y divergencia". En Bértola, L. *Ensayos de Historia Económica. Uruguay y la región en la economía mundial* 1870-1990, 53-90.
- Bentancur, A. (1998). El puerto colonial de Montevideo. I: Guerras y apertura comercial.

 Tres lustros de crecimiento económico (1791-1806). Universidad de la República,

 Departamento de Publicaciones de la Facultad de Humanidades y Ciencias.
- Borucki, A., Chagas, K. and Stalla, N. (2004) Esclavitud y Trabajo. Un estudio sobre los afrodescendientes en la frontera uruguaya (1835-1855). Montevideo: Pulmón Ediciones.



- Bolt, J., Inklaar, R., de Jong, H. and van Zanden, J.L. (2018), "Rebasing 'Maddison': new income comparisons and the shape of long-run economic development", *Maddison Project* Working paper 10
- Bulmer-Thomas, V. (2003). *The economic history of Latin America since independence*. Second Edition. Cambridge: Cambridge University Press.
- Cabella, W. and Pellegrino, A. (2005) Una estimación de la emigración internacional uruguaya entre 963 y 2004. *Documento de Trabajo Nº 70, Unidad Multidisciplinaria*, FCS-UdelaR, Montevideo.
- Castro, P. and Willebald, H. (2019) "Producto PIB regional en Uruguay durante la Primera Globalización (1872-1908): menor desigualad y convergencia entre regions". *Serie Documento de Trabajo, Instituto de Economía*, Facultad de Ciencias Económicas y de Administración, Universidad de la República, Montevideo (en prensa).
- Díaz (2017) "Railway investment in Uruguay before 1914: profitability, subsidies, and economic impact". *European Review of Economic History*, Volume 21, Issue 3, pp. 280–301.
- Errea, E., Peyrou, J., Secco, J. and Souto, G. (2011) *Transformaciones en el agro uruguayo:* nuevas instituciones y modelos de organización empresarial. Montevideo: Universidad Católica del Uruguay.
- Finch, H. (1980) *Historia económica del Uruguay contemporáneo*. Montevideo: Ed. Banda Oriental.
- Garcia Repetto, U. (2017) "El contralor de exportaciones e importaciones en Uruguay (1941-1959)". *Revista Uruguaya de Historia Económica*, 7 (11), 43-72.
- Geary, F. and Stark, T. (2002): "Examining Ireland's post-famine economic growth performance". *The Economic Journal*, 112, 919-935.
- Gil, L.E.A. (1933). Los origenes de Montevideo: 1607-1749. Librería y editorial "La Facultad", J. Roldán y cía.
- González, R. and Rodríguez, S. (1990) "Guaraníes y paisanos". Colección Nuestras Raíces, No 3, Montevideo: Nuestra Tierra.



- Jacob, R. (1977) El Uruguay en la crisis de 1929: Algunos indicadores económicos. Montevideo: Fundación de Cultura Universitaria.
- Jacob, R. (1981) *Uruguay 1929 1938: Depresión ganadera y desarrollo fabril*. Montevideo: Fundación de Cultura Universitaria.
- Martínez, E., Delgado, M. and Altmann, L. (2016) *Sistema urbano nacional del Uruguay*.

 Universidad de la República, Facultad de Arquitectura, Diseño y Urbanismo, ITU.

 Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente, Uruguay.
- Martinez-Galarraga, J., Rodríguez Miranda, A., Siniscalchi, S. and Willebald, H. (2019) "La distribución regional de la producción en Uruguay, 1908-1975: propuesta metodológica y fuentes". Serie *Documentos de Trabajo, DT 13/2019. Instituto de Economía*, Facultad de Ciencias Económicas y Administración, Universidad de la República, Uruguay.
- Martínez Lamas, J. (1930) Pobreza y Riqueza del Uruguay. Palacio del Libro, Montevideo.
- Millot, J. and Bertino, M. (1996) *Historia Económica del Uruguay. Tomo II (1860-1910)*. Ed. Fundación de Cultura Universitaria. Montevideo.
- Moraes, I. (2008) La Pradera Perdida. Historia y economía del agro uruguayo: una visión de largo llazo, 1760-1970. Linardi y Risso, Montevideo.
- Mordecki, G. (2017) "Uruguay en democracia: treinta años de evolución económica (1985-2015)". *Serie Documentos de Trabajo, DT 08/2017. Instituto de Economía*, Facultad de Ciencias Económicas y Administración, Universidad de la República, Uruguay.
- Mulhall & Mulhall (1892) *Handbook of the River Plate, comprising the Argentine Republic, Uruguay, and Paraguay*. Buenos Aires: M.G. and E.T. Mulhall, London: Kegan Paul Trench & Co.
- Nathan M. (2014) Empalme de las estimaciones y proyecciones de población anual por sexo y edad de INE-CELADE Rev. 1998 e INE Rev. 2013. (mimeo).
- Notaro, J. (1984) La política económica en el Uruguay, 1968-1984. Montevideo: CIEDUR.
- Oddone, G. (2010) El Declive. Una Mirada de la Economía de Uruguay del Siglo XX, Librería Linardi y Risso, Montevideo.



- OPP Oficina de Planeamiento y Presupuesto (1972) *Plan nacional de desarrollo, 1973-77*. Montevideo, Presidencia de la República.
- OPP Oficina de Planeamiento y Presupuesto (2016) *Producto Interno Bruto Regional 2008-2011. Metodología*, Oficina de Planeamiento y Presupuesto (OPP), Dirección de Descentralización e Inversión Pública, Montevideo, Uruguay.
- Pellegrino, A. (sf) "Un ensayo de estimación de la población de Uruguay 1885-1962", Documento de trabajo inédito, Programa de Población, Facultad de Ciencias Sociales, UdelaR.
- Pellegrino, A. (2010) *La Población de Uruguay. Breve caracterización demográfica*. Fondo de Población de (UNFPA), Doble clic Editores, Montevideo.
- Pellegrino, A. (2014) *Migraciones*. Colección Nuestro Tiempo, Libro de los Bicentenarios, Montevideo, Uruguay.
- Pellegrino, A. and Pollero, E. (2000) "Fecundidad y situación conyugal en el Uruguay: un análisis retrospectivo". En *Cambios demográficos en América Latina: la experiencia de cinco siglos*. Ponencias seleccionadas del Seminario Internacional sobre Cambios y Continuidades en los Comportamientos Demográficos en América: la Experiencia de Cinco Siglos, Córdoba, Argentina: IUSSP-Universidad de Córdoba.
- Petrakos, G. and Psycharis, Y. (2015) "The spatial aspects of economic crisis in Greece". Cambridge Journal of Regions Economy and Society 9(1), November.
- Reyes Abadie, W. (1966) *La Banda Oriental: pradera, frontera, puerto*. Ediciones de la Banda Oriental, Montevideo.
- Rodríguez Miranda, A. (2014) *Desarrollo económico y disparidades territoriales en Uruguay*. Serie: El Futuro en Foco, Cuadernos de Desarrollo Humano Nº 03, PNUD Uruguay, Montevideo.
- Rodríguez Miranda, A. and Goinheix, S. (2018). "Estimación del VAB departamental en Uruguay y evolución en el período 1981-2011", Serie Documentos de Trabajo, DT 03/2018. Instituto de Economía, Facultad de Ciencias Económicas y Administración, Universidad de la República, Uruguay.



- Rodríguez Miranda, A., Galaso, P., Goinheix, S. and Martínez, C. (2017) "Especializaciones productivas y desarrollo económico regional en Uruguay". Serie Documentos de Trabajo, DT 07/2017. Instituto de Economía, Facultad de Ciencias Económicas y Administración, Universidad de la República, Uruguay.
- Román, C., Willebald, H. (2019): "Structural change in a small natural-resource intensive economy. Switching from productive diversification to re-primarization?". *Serie Documento de Trabajo, Instituto de Economía*, Facultad de Ciencias Económicas y de Administración, Universidad de la República, Montevideo (en prensa).
- Willebald, H. and Juambeltz, J. (2018) "Land frontier expansion in settler economies (1830-1950): Was it a Ricardian process?" In Pinilla, V. and Willebald, H. (Eds) *Agricultural development in the world periphery. A global economic history approach.* Ch. 17, Palgrave Studies in Economic History, London: Palgrave Macmillan, pp. 439-466.
- Williamson, J.G. (1965) "Regional Inequality and the Process of National Development: A Description of Patterns." *Economic Development and Cultural Change*, 13, pp. 3-47.
- Yagüe, J. and Díaz-puente, J. (2008) "Tres siglos de planificación regional en Uruguay: lecciones de experiencia para afrontar los retos de desarrollo en el siglo XXI". *Estudios Geográficos*, LXIX, 264, enero-junio, 247-280.
- Zubillaga, C. (1977) "Algunos antecedentes sobre acondicionamiento territorial en Uruguay (1611-1911)". En CLAEH *Regionalización. Un aporte al estudio de caso uruguayo*. Cuadernos CLAEH, nº 4. Montevideo.



Table 1. Regional shares in Uruguayan GDP (per cent).

Province	1872	1884	1890	1895	1900	1908	1936	1955	1961	1975	1986	1990	1995	2000	2005	2012
Artigas	2,9	2,6	2,1	2,7	2,5	1,7	1,8	1,5	1,5	1,2	1,3	0,9	1,2	0,9	1,5	1,5
Canelones	3,7	4,0	3,4	4,3	4,0	6,3	5,8	7,2	7,9	8,2	6,8	8,1	8,7	10,2	7,8	9,4
Cerro Largo	3,4	3,5	2,9	3,3	2,9	2,5	2,1	1,9	2,0	1,7	1,9	1,3	1,7	1,4	1,9	1,8
Colonia	4,6	5,7	5,3	5,3	7,4	5,4	3,9	3,8	4,1	3,7	1,9	3,2	3,8	2,8	4,2	4,7
Durazno	3,0	3,5	2,7	3,1	3,2	2,1	1,8	1,9	1,7	1,8	1,9	1,2	1,5	1,0	1,4	1,4
Flores	1,5	1,9	1,7	1,8	1,8	1,2	1,1	1,2	0,9	0,7	1,1	1,0	0,8	0,9	0,7	0,8
Florida	2,5	2,6	2,2	2,8	2,9	3,7	3,1	2,8	2,5	2,1	2,4	1,5	1,6	1,5	1,5	1,9
Lavalleja	1,6	1,3	1,2	1,3	1,9	1,9	1,6	2,0	1,7	1,9	2,3	1,4	1,3	1,4	1,2	1,6
Maldonado	3,0	2,6	2,0	2,4	2,5	1,2	2,2	2,8	3,1	3,0	3,1	6,1	4,7	5,0	5,4	5,6
Montevideo	45,4	45,6	54,2	46,9	45,1	48,1	54,5	53,3	54,8	57,3	54,0	57,9	57,6	58,9	56,0	51,3
Paysandú	5,7	5,5	4,0	4,3	4,2	4,5	3,7	3,2	3,3	2,8	5,1	2,7	2,6	2,4	2,5	2,8
Río Negro	2,2	2,7	2,4	2,8	2,6	2,9	2,4	2,0	1,6	1,9	2,2	1,6	1,5	1,4	1,8	2,3
Rivera	1,8	1,5	1,4	1,7	1,6	1,7	1,7	1,7	1,7	1,6	2,4	1,4	1,7	1,9	2,3	2,1
Rocha	2,2	1,8	1,7	2,2	2,3	1,7	1,7	2,1	1,7	1,7	1,6	1,5	1,4	1,3	1,5	1,8
Salto	4,8	4,2	3,4	4,0	4,1	3,2	2,8	2,7	2,7	2,5	4,4	3,4	3,3	2,8	3,0	2,7
San José	2,0	2,0	1,7	2,3	2,3	4,0	3,3	3,0	2,6	2,3	2,0	2,0	1,9	2,2	2,5	2,9
Soriano	3,7	3,6	2,9	3,5	3,6	4,1	2,7	3,2	2,7	2,2	2,7	2,1	2,0	1,6	2,0	2,4
Tacuarembó	3,9	3,4	2,8	3,2	2,9	2,5	2,4	2,4	2,3	2,1	2,1	1,9	1,7	1,5	1,7	1,9
Treinta y Tres	2,1	2,2	1,8	2,1	2,1	1,3	1,4	1,4	1,3	1,2	1,0	0,9	1,0	1,0	1,0	1,2
Uruguay	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0



Table 2. Relative GDP per capita for Uruguayan provinces, 1872-2012 (Uruguay=100).

Province	1872	1884	1890	1895	1900	1908	1936	1955	1961	1975	1986	1990	1995	2000	2005	2012
Artigas	167	132	97	120	106	68	78	70	71	58	57	40	50	39	62	65
Canelones	41	45	39	49	47	75	62	72	80	70	54	62	63	70	52	58
Cerro Largo	63	70	60	70	63	59	59	63	72	64	72	49	65	54	70	69
Colonia	79	100	95	97	137	103	82	90	101	92	49	84	99	75	113	125
Durazno	74	84	67	76	78	53	61	83	82	91	100	67	86	58	76	79
Flores	103	125	110	119	118	79	92	117	91	82	131	117	102	113	91	96
Florida	49	53	47	61	65	84	91	102	101	89	105	69	73	70	73	92
Lavalleja	32	26	24	27	39	38	45	69	64	81	112	68	67	75	63	88
Maldonado	73	72	59	74	83	42	84	116	130	109	96	171	120	119	122	109
Montevideo	168	162	190	162	154	162	146	123	120	129	122	133	135	141	137	130
Paysandú	117	124	94	104	108	122	101	90	96	79	146	77	75	69	73	82
Río Negro	168	178	149	166	149	150	124	105	91	106	131	99	94	86	108	138
Rivera	122	78	65	69	58	50	53	55	56	53	79	45	54	59	73	66
Rocha	116	80	68	80	79	52	65	89	79	79	71	66	65	58	70	84
Salto	90	84	70	84	89	71	68	71	74	69	120	92	88	74	79	71
San José	46	46	40	51	52	91	86	92	83	72	64	66	61	70	78	87
Soriano	65	72	63	79	86	107	78	103	88	78	100	79	76	62	78	95
Tacuarembó	111	87	70	77	67	55	63	76	75	70	76	68	63	53	63	67
Treinta y Tres	74	76	64	76	76	48	62	75	76	71	60	59	65	65	69	81

Figure 1. Uruguay GDP per capita relative to US GDP per capita, 1870-2015.



Source: Maddison project database



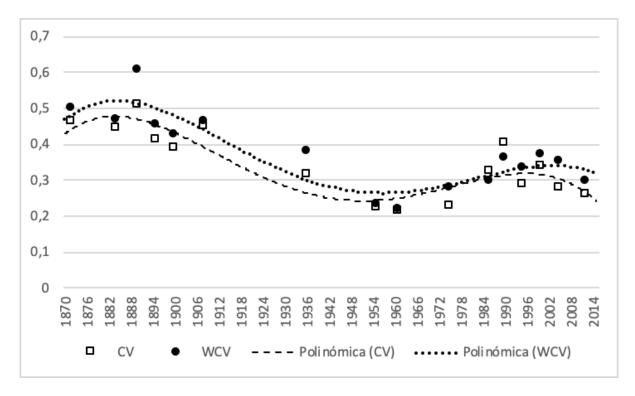
Figure 2. Provinces (departamentos) of Uruguay.



Source: own elaboration.



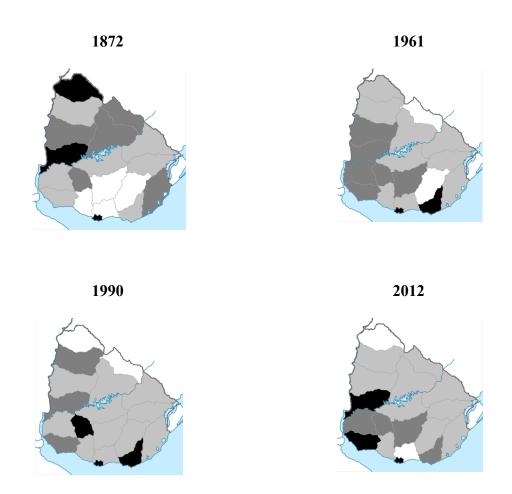
Figure 3. Regional inequality in Uruguay (GDP per capita), 1872-2012.



Source: own elaboration.



Figure 4. Maps by GDP per capita, Uruguay provinces, 1872-2012.



Source. see text.