

Viewed up close, nobody is normal:
Industrialization and Income Distribution in Latin America.
An Essay

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The relation between growth and distribution in Latin America has been a topic of lively debate, due to the well-known high Latin American inequality. The timing of the appearance of high income inequality has also been a topic of debate. While some scholars argue that inequality is rooted in the colonial period, others sustain that industrialization can be seen as one important source of inequality. The paper will present a typology of patterns of industrialization and income distribution in Latin America. First, the timing of industrial growth and industrialization will be discussed. Second, the patterns of industrialization will be approached. Third, the evidence on income distribution will be summarized. Fourth, the evidence on welfare systems will be considered. The typology presented will put together all these components. The paper will try to show, mobilizing a wide range of available evidence, that, in spite of some common features, the Latin American countries show different patterns of inequality and different impacts of industrialization on distribution. Moreover, it will show that different conformations of welfare regimes, as well as other institutional features, widened the differences between the studied countries.

1. Introduction

Two inter-related facts have fueled the debate on Latin American long-run development: the continent's high inequality levels and its long-run divergent trend in relation to the leaders of the world economy. Both can be seen, as expressions of inequality: the first one, within countries; the second one, between countries.

During the 1960s and 1970s, economic history was a field of convergence among the social sciences. The dominant views about Latin American laggardness combined both kinds of approaches. Latin America was laggard because it was dominated by a system led, directly or indirectly, by colonial powers with higher technologies and stronger economic, political and military power. The combination of colonial regimes and domestic human and natural resources led to patterns of economic specialization, as well as economic, social and political structures, that reinforced backwardness and inequality. Thus, the roots of Latin American backwardness were to be found in the colonial period. However, they were recreated and reshaped, as the international economy was deeply transformed together with the Industrial Revolution, the transport revolution and the appearance of new forms of informal imperialism and dependency. The road to development implied structural changes, both in the way in which these economies were integrated into the world economy, and domestically. At the international level, a new pattern of export specialization was needed, which should go hand in hand with industrialization and changes in the domestic power relations in the economy, society and politics, implying land reforms, among other measures. This approach lied behind different political movements of different ideological backgrounds: Nationalism, Populism, Developmentalism, Structuralism, Marxism, Liberation Theology, and Christian Democratic movements, among others. In this context, industrialization was regarded as one part of more fundamental transformations towards development.

However, after decades of industrialist progress and State-led development, Latin America continued to face deep social inequalities, difficulties in sustaining economic growth, and continued to be confronted with deep crisis, related to its external sector. In many of the countries we will study here, State-led growth was followed by military dictatorships (Argentina, Brazil, Chile and Uruguay), which blocked and reversed social progress in favor of liberal adjustments, that most of the time aimed at promoting natural-resource-based growth or cheap labor employment. Thus, in the 1990s, during the prevalence of the so-called Washington Consensus, the dominating idea among policy advisors and international agencies and academia, was that Latin American backwardness was mainly explained by the fact, that State engagement in the economy created more failures than those it was aimed to overcome.

During the last decades of the 20th century, Latin America engaged in a profound process of globalization. Despite very fast export growth, mainly based on primary products and maquila industries, GDP growth was sluggish; divergence as well as domestic economic and social inequalities, were deepened. Growth continued to be featured by strong cyclical movements, and, during the deep crisis, poverty and indigence boomed.

Under such circumstances, the new wave of neo-institutionalist approaches found a good field were to make progress. Simple recipes about going global were doomed to fail, as the supposedly new rules of the game could be easily captured by the ruling elites. Latin American

backwardness was deeply rooted in the set of institutions the colonial powers established in their colonies, either because they were rooted in their own societies (North, Summerhill Weingast, 2000), or because the endowments and conditions they found where they arrived (Engerman and Sokoloff 1997, World Bank 2004, Chapter 4, written by Sokoloff and Robinson). This approach implied a comeback to one part of the ideas of the 1960s and 1970s: that domestic inequality and power relations played a decisive role since the colonial times. However, the international relations were left out of the analysis. Colonialism was important at time zero; afterwards, domestic institutions developed by their own, as institutions are path-dependent to a high extent.

The neo-institutionalist wave produced a reaction among different scholars who questioned the colonial origin of Latin American inequality. From an inequality possibility frontier approach (Milanovic, Lindert and Williamson, 2011), too much dependent on income and on the Gini-coefficient as a measure of inequality, it was argued that economies with low per capita incomes could not be too unequal, as the surplus to be appropriated by the elite was too low. Defenders of the good performance of Spanish America, argue that the wage level was comparable to cities in other parts of the world, without making any effort to quantify the weight of wage earners (Dobado and García, 2010). From a Heckscker-Ohlin approach, Williamson repeatedly argued that the First Globalization Boom was to be considered the origin of high Latin American inequality (Williamson 2012). Other authors considered, probably with some inspiration in the Kuznets curve, but also aiming to question even further the limits of State-led growth, that high Latin American inequality was a result of privileges and property concentration during the period of industrialization. To this point of view converged even Williamson (2015), whose new argument was that Latin American inequality might have deep historical roots, but the continent was not more unequal than other regions of the world. Latin America, he argues, became relatively unequal when it failed to join the Great Egalitarian Leveling trend, experienced almost elsewhere, during the central decades of the 20th century.

Latin American scholars have not been absent from this debate. They have not only contributed to create new pieces of information, necessary for any serious approach to the subject. They also contributed with alternative interpretations of the process. For instance, in several works of the Montevideo team that worked on Latin American inequality (for instance, Bértola 2005, Bértola, Castelnovo, Rodríguez Weber and Willebald, Rodríguez Weber 2014, Bértola 2011, Bértola and Ocampo 2012), a particular approach to the subject was developed. Some of their main ideas are:

- The importance to have an integrated approach to domestic and international inequality, which is also in line with the works of Bourguignon and Morrison (2002), Milanovic (2016), and others.
- The importance of taking a political economy approach, in the sense that what matters is not inequality levels per se, but the way in which distribution takes part of a circular and bidirectional process, in which the pattern of productive specialization plays a paramount role.
- The central role of power relations and institutional building to determine the way in which the fruits of trade, technical change and productivity growth are distributed, and impact on investment and innovation.

- From a more empirical point of view, the main stylized fact is that Latin American inequality can be regarded, on average, as historically high. However, different studies show that it is also fluctuating, due to both economic and socio-political factors.
- Another point made is, that most of the approaches discussed before makes excessive generalizations about Latin American performance, giving too little place to its diversity. The Cardoso and Perez-Brignoli (1978) typology, recovered and actualized by Bértola and Ocampo (2012), is a powerful tool of analysis of different patterns of transition from the colonial era to the First Globalization Boom, or, in other words, to peripheral capitalism. Clearly different patterns of inequality may be found in the Indo-American regions of South and Central America and Mexico (dominated by mining and the hacienda/peasant community interaction), in the Afro-American regions (mainly Brazil, the Caribbean, but also in the coastal regions of Venezuela, Colombia, Perú), and in the Euro-American regions (mainly Argentina, Uruguay, Southern Brazil, Costa Rica and even Chile, to some extent).
- It is difficult to regard colonial Latin America as a region with low inequality without straining credulity: 25% of slave population, more than 60% of Indo-American populations without civil rights, or property rights. International inequality must be added to domestic inequality, which is not only a matter of income, but also of political rights, monopolies, commercial privileges and more. Probably, some Latin American regions showed income levels close to those of the more advanced regions, but they were clearly peripheral in terms of population. To argue that Latin American wages in some cities or mining regions were relatively high, does not make sense, as the bulk of the population was living in rural areas, even during the 20th century. Besides, wage-earners often lived under extremely bad conditions, and probably lived short lives (Fogel 2004).
- To say that the colonial origin of Latin American inequality is a myth looks more like a marketing strategy to sell a product than a real scientific assertion. If it is true, that the Latin American problem was its failure to reduce inequality during the 20th century, what is implied is that Latin America was not able to transform its social structure and its productive structure. The assertion that inequality rose in the late 19th century without connection to the colonial heritage, i.e., slavery, the *mita*, the hacienda system, and the great amount of coercive labor forms registered throughout Latin America, and that it simply depends on relative factor price movements, simply lacks sense of history.
- During the First Globalization Boom, Inequality increased in Latin America in many ways: within every country, within every region of the large countries, between the Latin American countries. With respect to international inequality, some countries could partially catch-up, (the less populated ones), while most of them diverged significantly. This result cannot barely be deducted from a general model of international trade. By the contrary, it was an institutional process to a high extent: the national State was consolidated, it used all the power of new technologies to reduce that of weaker regional elites, and to suppress the resistance of peasant movements against the huge resource concentration in domestic and international elites. The existence of natural resources, open frontier or similar aspects, are not by themselves sufficient explanatory factors for these inequality trends.

- Concerning the period of State-led growth, during which industrialization took place, the main idea, to be developed in this paper, is that the patterns of income distribution reproduced, to some extent, distributional patterns inherited from the past. Notwithstanding significant efforts and achievements to transform the productive structure and develop social reforms, no case is recorded, that could combine catching up and a significant reduction in inequality levels, and the general long-run feature of being a highly unequal and laggard continent remained. This process took place, however, in different forms with different results in the Latin American region.

2. Industrialization and industrial growth

2.1. The timing

In order to discuss the relation between industrialization and distribution, we must first clearly define the concept of industrialization and identify its timing.

I will use the term industrialization as a process in which the share of manufacturing output in total GDP increases. A more complex definition could be that industrialization is a process in which economic growth is led by the manufacturing industry. However, in the case of Latin America, this second definition may be confusing and poses many problems. The growth of the manufacturing sector, itself, may be the result of the good performance of the export-led and natural-resource-based growth, combined with different kinds of industrialist policies. I will then use the concept in the simple way first defined.

I will use the concept industrial growth or industrial development to refer to a process in which the industrial sector is growing or even experiencing significant qualitative changes, despite not increasing its share in GDP in a significant way.

Studies of Latin American Industrialization boomed in the 1950s-1970s. The natural starting point for these studies were the 1930s, as industrialization was seen as a reaction to the 1929 year crisis and later depression. As it is well-known, the international crisis set in motion a strong contraction of demand for Latin American exports and a deep fall in their prices followed. The purchasing power of exports fell by 50% between 1929 and 1933 and did not recover until the second half of the 1940s (Bértola & Ocampo 2012, Graph 4.1). In most Latin American countries, the state was engaged in protectionist and industrialist policies. At the beginning, they were a spontaneous reaction to the crisis, to balance the trade account, without any significant theoretical background. However, as time went by, a set of different theories were developed, to legitimate and develop the industrialist strategy. ECLA, the United Nations Economic Commission for Latin America, played a very important role as a center of theoretical construction and policy advice for the whole region, under the leadership of Raúl Prebisch.

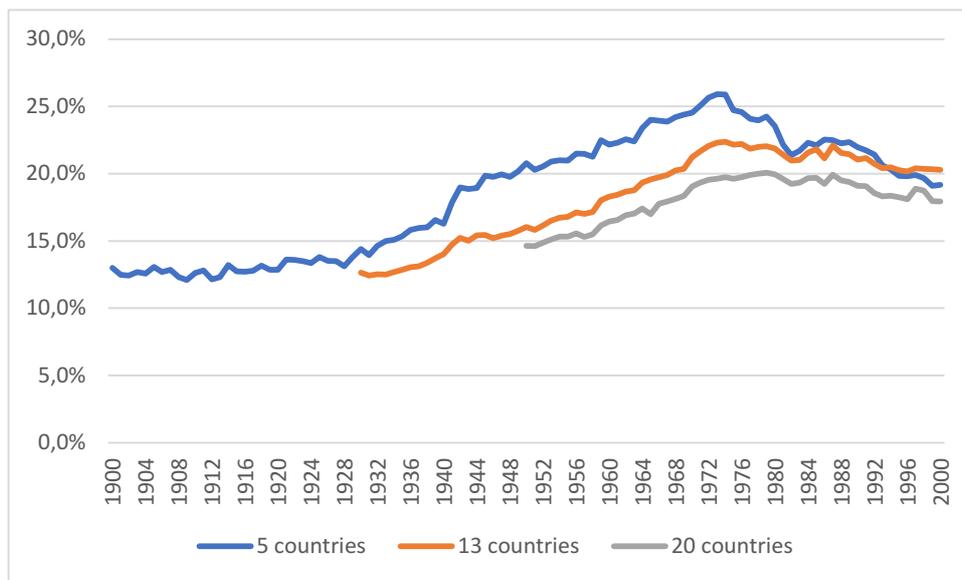
Well advanced the 1960s, the limits and shortcomings of Latin American industrialization became apparent. The somewhat naïve idea, that industrialization was harmed by external forces and that State protection was an almost sufficient condition for development, was more and more questioned. The study of the origins of industrialization became a hot topic of debate and an increasing interest was directed to the so-called “early industrialization”.

Basically, the stress was in the fact that industrialization in the 1930s was made possible by a previous process of industrial growth, during which an entrepreneurial base was established, as well as many investments in infrastructure.

Since then, some kind of confusion prevailed. The existence of a previous industrial base, the importance of “early industrialization”, blurred the fact that industrialization, as I defined it, as increasing share of the manufacturing sector in GDP, in fact took place between the 1930s and the early 1970s, as shown in Graph 1.

The Graph displays the non-weighted average of different groups of Latin American countries at different periods, depending on the available evidence. There exists a correlation between the time coverage of the available information and the degree of industrialization of the different economies, as the average level of industrialization decreases as new countries are added in more recent periods of time. As noticed in the graph, de-industrialization was more radical in “highly” industrialized countries, and convergence in levels of industrialization is noticed at the end of the century.

Graph 1. The manufacturing industry’s share on GDP, 1900-2000. Non-weighted average of different groups of countries.



References: MOXLAD

5 countries: Argentina, Chile, Colombia, México and Uruguay

13 countries: 5 countries plus Brazil, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Nicaragua and Perú

20: 13 plus Bolivia, Dominican Republic, Ecuador, Haití, Panama, Paraguay and Venezuela.

There are important economic, social and political differences between the Latin American countries, besides size and geography. Table 1 presents the different countries according to the degree of industrialization at the early 1970s. There is a group of seven countries that showed an industrialization level above 20%. This is the first step in order to select the countries to work with. As our interest is the relation between industrialization and distribution, we must select countries that showed a process of industrialization. As mentioned

before, there is some coincidence between higher industrialization levels and better data availability.

Table 1. Group of countries according to degree of industrialization 1971-73

High	26,3%		Medium	17,1%		Low	12,9%
Argentina	33,0%		Nicaragua	19,7%		Guatemala	14,7%
Brazil	30,0%		Colombia	18,4%		Honduras	14,4%
Chile	29,1%		El Salvador	18,0%		Bolivia	12,4%
Uruguay	23,9%		Paraguay	17,3%		Haiti	10,3%
México	23,2%		Dom, Rep.	16,9%			
Cuba	22,8%		Costa Rica	16,7%			
Perú	22,2%		Ecuador	16,2%			
			Panama	15,6%			
			Venezuela	15,3%			

Own estimates based on MOXLAD

Moreover, it is important to check whether we find a process of industrialization between the early 1930s and early 1970s. As Table 2 shows, this does not seem the case of Cuba, a country which, besides, poses many other difficulties.

Then, we will work with six countries: one heavy industrializer (Brazil), three medium industrializers (Argentina, Chile and Mexico), and two moderate industrializers: Perú and Uruguay.

These six countries cover, in turn, the different groups of countries presented in the most used typology of Latin American countries, as, for instance, in Bértola and Ocampo (2012): the Indo-American countries (Mexico and Perú), the Afro-American ones (Brazil), and the Euro-American (Argentina, Uruguay and, to some extent, Chile).

In Bértola & Ocampo (2012), the Indo-American and the Afro-American countries are re-grouped in large and medium size countries, on the one side, and small countries, on the other. This difference, the authors argue, is particularly important for the study of industrialization, where the size of the domestic market is a crucial variable. This is also important for the study of inequality, as income distribution in large countries, as we will see, resembles the dual economy model presented by Lewis (1954). As expected, in the group we will study there are no small countries included, excepting for Uruguay, which is part of the Euro-American group. Thus, we will study, besides the Euro-American, two large countries (Brazil and México), and one medium size one (Perú).

Table 2. Degree of industrialization of "highly" industrialized Latin American countries, 1900-2000, and increase 1930s-1970s

Years	Argentina	Brazil	Chile	Cuba	Mexico	Perú	Uruguay
1900-02	16,0%		11,4%		5,3%		15,6%
1912-14	17,5%		12,0%		6,7%		15,4%
1930-32	20,5%	13,4%	16,7%	22,0%	12,1%	13,2%	16,6%
1944-46	26,2%	16,8%	20,8%	18,7%	18,8%	14,4%	20,7%
1971-73	33,0%	30,0%	29,1%	22,8%	23,2%	22,2%	23,9%
1998-2000	23,2%	23,2%	18,1%	40,9%	25,1%	18,4%	15,1%
70s-30s	12,5%	16,6%	12,4%	0,8%	11,2%	9,1%	7,2%

Own estimates based on MOXLAD

2.2. Patterns of industrialization: which industry on which grounds

The features of Latin American manufacturing development have been a topic of much research. Here, I will summarize some basic aspects. It is based on the third chapter of my joint work together with Ocampo (Bértola and Ocampo, 2012). Besides the numerous literature on the topic, Fajnzylber's works (1989 and 1992) are still references.

As said before, prior to the 1929-year crisis, Latin American manufacturing growth was not negligible, but it was mainly directed to the domestic market, based on some localization advantages and even thanks to the fiscal system, which was often based on import tariffs, thus having some protectionist outcomes. Some export-led industries were industrialized, when manufacturing was a pre-condition for exports. The typical cases were the frozen meat and mineral exports. If we want to get an idea about how limited manufacturing production was, it is enough to see the export basket of the Latin American countries, as in Table 3.

The table also shows how limited the process of industrialization was, at this pattern of highly concentrated exports on primary products remained unchanged. Large countries, like Mexico and Brazil, or even Perú, show lesser degrees of concentration, but this is not necessarily because of the weight of manufacturing exports, but because of the existence of important regional differences in terms of natural endowments.

The process has often been defined as one of Import-Substituting Industrialization. We prefer to refer to it as State-led Industrialization, as import-substitution, as a source of growth, only played some important role during the 1930s. Afterwards, the expansion of domestic demand was the main source of growth.

The literature use to talk about a first easy phase of industrialization, featured by the domestic production of many previously imported products, based on rather simple and mature technology, and concentrated in traditional sectors, such as food and beverages, textiles and clothing, furniture and inputs for the building sector. The reduction of the import-coefficient was necessary to balance the balance of payments, which also was made possible by controls of the capital account.

The recovery of exports, during and particularly after WWII, made it possible to relax the external constraint and allowed for significant imports of capital goods, fuels and raw materials, to feed industrialization. However, as manufacturing expansion proceeded and the industrial sector became more complex, the need for foreign resources tended to grow faster than exports. While the terms of trade, after WWII, made it possible to increase the purchasing power of exports, the terms of trade downturn after the 1950s posed severe external constraints.

Industrial policy in Latin America produced many positive outcomes, in terms of training and developing a base of domestic enterprises, entrepreneurs, workers, and State capabilities. However, there is a widespread agreement about the fact that industrial policy was too short-minded; it aimed mainly at balancing the external sheet within a short-run framework, without having a clear focus on the role of science, technology and innovation, giving too much room for the corporate demands of entrepreneurs, and even labor unions. Obviously, the other side of the coin was, contrary to what often has been said, the weakness of the Latin American State, both in terms of real power and in terms of capabilities.

Nevertheless, policy advice, particularly from ECLA, never proposed a simple model of inward-looking growth, but rather, something that lately was called development from within, meaning by that, the need for a dynamic domestic core of industrial production, which could be the competitive basis for an export-oriented manufacturing sector.

The crisis of State-led growth cannot be easily simplified, and there exists important nuances across the region. In some countries, as Argentina, Chile, and Uruguay, the model imploded rather early, specially in Uruguay, due to the external and domestic contradictions and limits of the model. In the Argentine case, the reasons for the implosion were mainly political economy ones, as the structure of exports had already started to change by the 1960s (Ferrer 2010). In Mexico and Peru, the story was somewhat different, and the debt crisis played a crucial growth in hampering a process which was making progress towards an export-led manufacturing growth. This seems also to be the case of Brazil, but under quite different circumstances.

The timing of this process was different in different countries and the degree to which the manufacturing sector could diversify and even reach exports, depended both on the extension of the domestic market (both due to the size of population and the level of income) and on the kind of policy measures applied. While Uruguay is the typical case of a very small domestic market, reaching the limits of domestic demand very quickly, Argentina looks like a different one, with a larger domestic market, with relatively high income and a much more diversified production.

As we will discuss in the following section, the distributional aspects were central to the specificities of the different national experiences, which is the central topic of the paper.

Table 3. Concentration of Latin American exports by products, 1870-73 to 1970-73

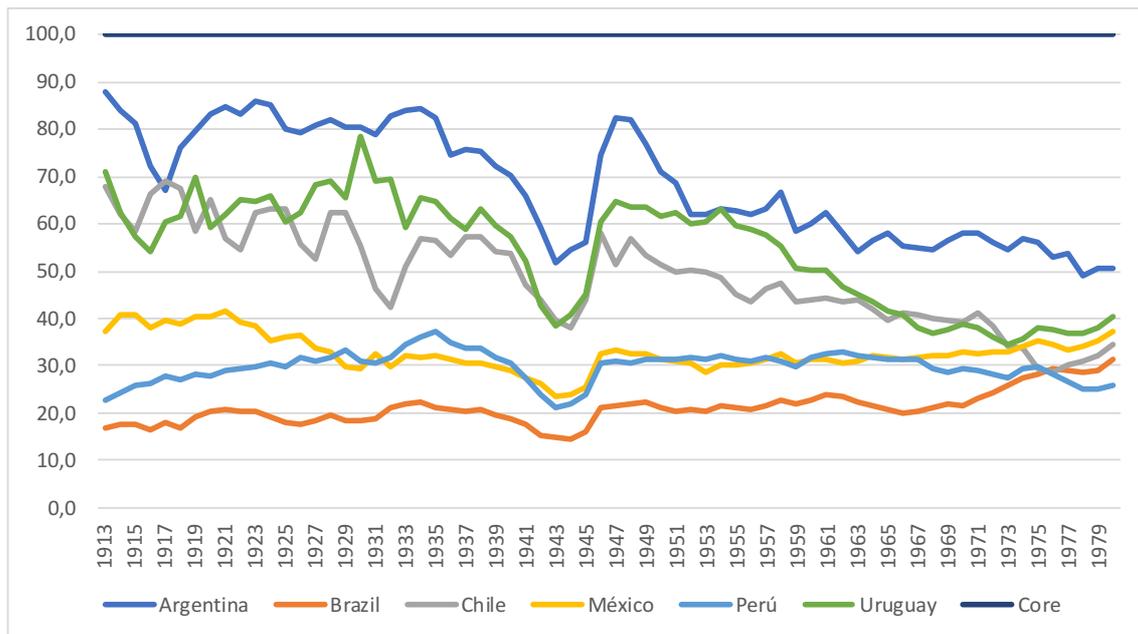
Country	Share of Total Exports									
	Top export product					Top three export products				
	1870-73	1910-13	1926-29	1949-52	1970-73	1870-73	1910-13	1926-29	1949-52	1970-73
Argentina	41%	21%	22%	7%	26%	74%	50%	56%	19%	46%
Brazil	53%	52%	71%	63%	29%	82%	77%	76%	78%	41%
Chile	52%	31%	46%	5%	64%	n.d.	34%	77%	7%	67%
Mexico	85%	22%	23%	19%	8%	91%	31%	49%	38%	18%
Peru	33%	18%	34%	32%	18%	57%	36%	71%	56%	30%
Uruguay	35%	40%	33%	47%	36%	76%	69%	77%	78%	63%
Average Latin	50%	42%	54%	52%	38%	66%	52%	73%	51%	56%

Taken from Bértola and Ocampo (2012, Table 1.7).

3. Between-country inequality during industrialization

As mentioned before, there is an important component in Latin American inequality, that has to do with the distance between the domestic per capita income and that of the leaders of the world economy. In this case, the benchmark used is the weighted average of France, Germany, the UK and the USA (Graph 2).

Graph 2. Per capita GDP of six Latin American countries in relation to that of the core (France, Germany, UK and USA), 1913-1980 (1990 Geary-Khamis US\$).



Source: Latin America: Bértola and Ocampo (2012); core: Maddison database.

This paper will not focus on this kind of inequality, but we need to take it into consideration. There are many interesting stylized facts arising from this figure.

- In all countries, the 1930s were years of clear divergence, due to the drastic impact on the Latin American economies of the collapse of demand and prices for primary products.
- The richest Latin American countries were those who suffered the crisis the most. They had started to diverge, even if slightly, already since the 1910s. Their divergence from

world leaders continued and deepened throughout the whole period of industrialization.

- Mexico started to diverge before the 1929-year crisis too, and during the 1930s divergence was deepened. However, since WWII, Mexico could keep pace with the growth rate of world leaders and, since the 1960s, even succeeded to catch up, recovering the relative levels of the 1910s.
- Perú was showing a positive relative development during the export-led era, but the 1930s were very harmful. During the post-WWII period it could keep pace with core growth, but divergence continued since the mid-1960s.
- Brazil is outstanding. This is the country that, except for the 1930s, could keep pace with core growth and even converge during the 1960s and 70s.
- As a result, during the period of industrialization a process of strong convergence among the Latin American countries was noticed: those, who were better-off at the beginning of the process, performed worse.

All in all, what seems to be clear is that industrialization was a defensive reaction, to cope with the shock produced by the crisis and depression of the 1930s, when the world market collapsed.

4. Within-country inequality during industrialization

The available information on income inequality in our six countries varies significantly. Two countries stand out: Chile and Uruguay. For those two cases we have rather good estimates of income inequality on a yearly basis, so-called dynamic social tables, for the whole period. Both countries belong the group of relatively rich Latin American countries, together with Argentina. The three represent the so-called Euro-American group, even if Chile shows important differences, and, as we will see, with important results in terms of inequality.

Our study will start with these countries. Later, we will tackle the other three countries: Brazil, representing the Afro-American group, and México and Perú, representing the Indo-American.

4.1. The Southern Cone: Chile and Uruguay

The first long-run study of inequality in a Latin American country was that of Bértola (2005) for Uruguay. The study covered more than 70% of the active population divided in three sectors: agrarian (skilled, unskilled, land-owners, tenants), manufacturing industry (several categories of workers of different branches) and State employees (an exhaustive coverage), for the period 1908-1966. The series was linked backwards to a series presenting rental/wage ratios, and forward linking with modern estimates, based on household surveys, to cover the period 1870-1998.

Javier Rodríguez Weber's Ph. D. dissertation (2014) is the most complete estimate of long-run inequality for any single country in Latin America. Following a strategy akin to that of Bértola, his work is more complete and exhaustive, and systematically covers a longer period: 1860-1970.

Both long-run series show that there does not exist a Kuznetz curve. What can be found is the existence of a cyclical pattern in inequality levels. Inequality grew up to WWI in Uruguay and up to the late 1920s in Chile. It declined afterwards until the 1960s; it climbed again until the

end of the century. A new period of declining inequality followed the leftwing governments since 2005 in Uruguay. The case of Chile is somewhat different: inequality did not decline during the 1980s and 1990s, despite the hegemony of center-left governments. Both studies remark that these cycles are the result of the combination of relative factor price movements, structural change and the political economy. Either favoring or reducing inequality, the State and the institutional framework always played an important role.

Both studies show other similarities when considering the whole period 1870-2000. It is not possible to find a clear correlation between Inequality and growth: it is possible to find periods of fast growth with increasing or decreasing inequality. The same can be said about crisis. Both studies remark that what must be the center of the analysis are not inequality measures *per se*, but the pattern of development of which distribution is one component.

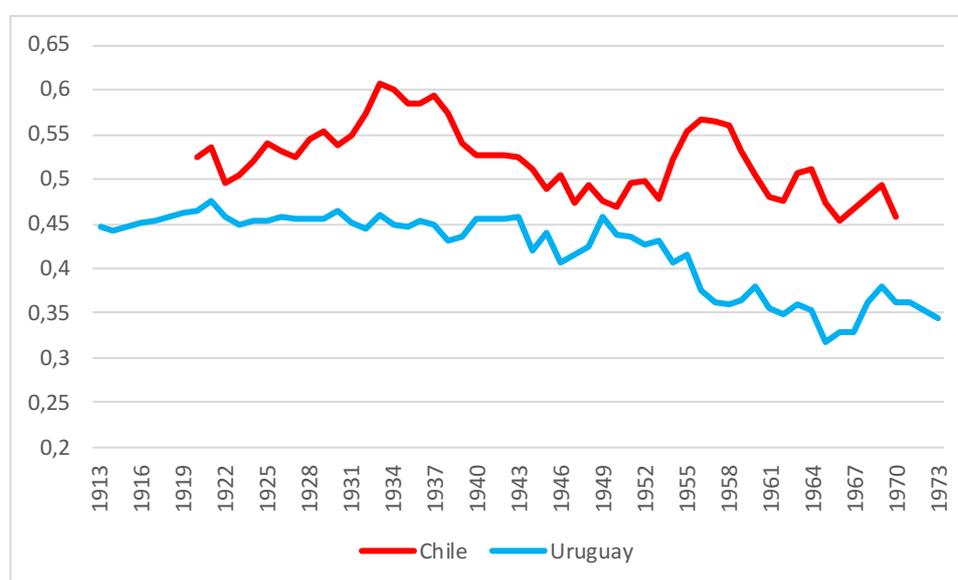
There is, however, an important difference between both countries. Inequality in Chile seemed to be always much higher than in Uruguay. Uruguay has traditionally been regarded as a country with relatively low inequality levels, within the Latin American context. Nowadays, it shows the regions lowest inequality levels. This has to do with the social formation of the country. Despite exhibiting high levels of land concentration, it was a country with high endowments of natural resources, while labor was relatively scarce. Slavery existed almost only in the domestic urban services; no extensive use of slave labor in the countryside existed. The native population, especially in the Southern part of the country, was not agricultural. It was not an attractive labor force to exploit. Immigration played an important role in population growth, but the extensive cattle-breeding sector did not demand too much labor in the countryside. The country urbanized rather quickly, labor unions were well organized already at the beginning of the century and political power moved in favor of urban alliances with important reformist ideologies and policies, under the leadership of the Colorado Party and its influential leader José Batlle y Ordoñez. The eight-hours working day was introduced already in 1914, female vote in 1918 (enforced first in the 1930s) and State engagement in the economy was important, through several productive, financial and technological initiatives. The combination of reformist politics, welfare policies and labor unions, were to be long-lasting features of the Uruguayan society, until today.

Chile, on the contrary, had a more numerous indigenous population. However, it was rather scattered in the territory and did not show the cohesion of the peasant communities as in the rest of the Andean region. On the contrary, Chile's landowning aristocracy was a powerful and united group, with strong links to the State, and it controlled the fertile lands of the Central Valley. The power of the *hacendados* was strong and many different forms of coercive work and peasant attachment to the land prevailed. Even if inequality first decreased after the Pacific War and the annexation of the desert in the North and the lands of the South, the *Araucania*, after a while a huge concentration of wealth and power took place, increasing inequality. Even if left-wing movements became stronger, and developmentalist alliances were formed, the Chilean elite always remained a much richer and stronger force than in Uruguay. Besides, during the late 19th century and early 20th century, Chile did not experience the strong immigration wave that both Argentina and, to a lesser extent, Uruguay did, with all the implications in terms of social mobility.

Chile and Uruguay show another important difference: the export sector. Chile's exports consisted mainly of nitrates and copper. Chile had the monopoly of nitrates up to WWI. Later, nitrates faced the competition of the chemical industry and collapsed in the 1920s and 1930s. Copper suffered the price collapse too. Uruguayan exports consisted mainly of agrarian products: beef, wool, leather. The incomes of the copper industry and nitrates were highly concentrated; the incomes of the agrarian sector in Uruguay were distributed among thousands of producers, despite land concentration.

Graph 3 presents inequality trends in both countries in the period 1913-1970. We will now try to interpret how these trends were related to industrialization.

Graph 3. Gini-coefficient for Chile and Uruguay, 1913-1970



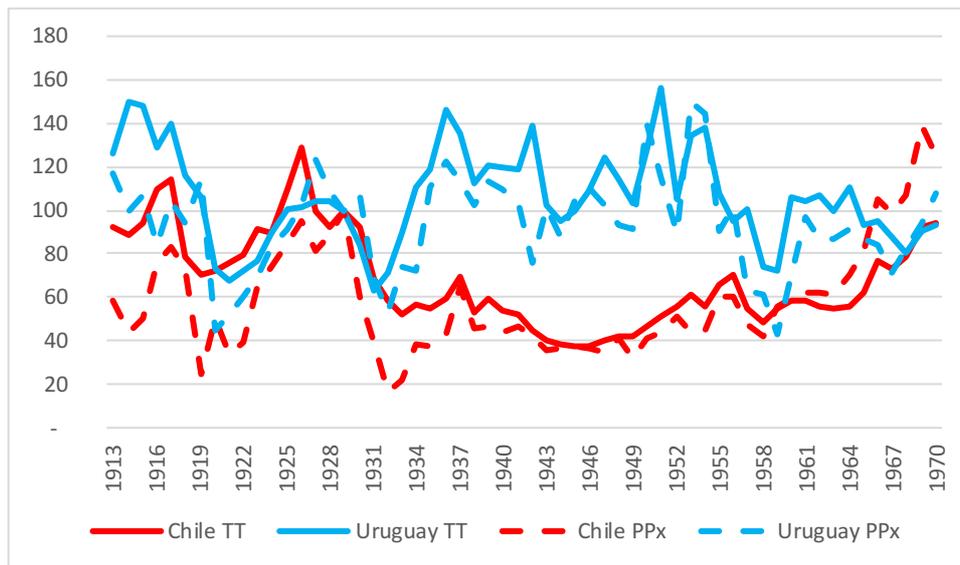
Sources: Chile, Rodríguez Weber (2011); Uruguay, Bértola (2005).

The terms of trade and the purchasing power of exports are crucial variables to understand industrialization and its timing. They are also important to understand the political economy of these countries. The terms of trade are a good proxy for the relative income of the export sector, or, in other words, for the rent appropriated by these countries proceeding from their natural resources.

As shown in Graph 4, both variables covariate strongly within each country. On the other hand, they moved in quite different ways in the two countries. Uruguay had exhibited very favorable terms of trade during WWI. After the post-war adjustment, a slight increase took place during the late 1920s. The fall after the crisis was important but short. After the recovery, the levels remained high and peaked around the year 1950. Afterwards the fall was remarkable. WWII, and the reconstruction of Europe after the war, were good environments for demand and prices for foodstuffs and raw materials for the clothing industry. The recovery of Europe and the protectionist agrarian policy since the 1950s had a negative impact on the terms of trade of countries of temperate climate, which produced similar goods as Europe. The timing of

Chilean terms of trade was different. The downward trend lasted until the end of WWII, when an upward trend started and continued until the early 1970s. Chile had important copper reserves and demand was booming. The purchasing power of export grew more than the terms of trade.

Graph 4. Terms of trade and Purchasing Power of Exports of Chile and Uruguay: 1913-1970 (1929=100)



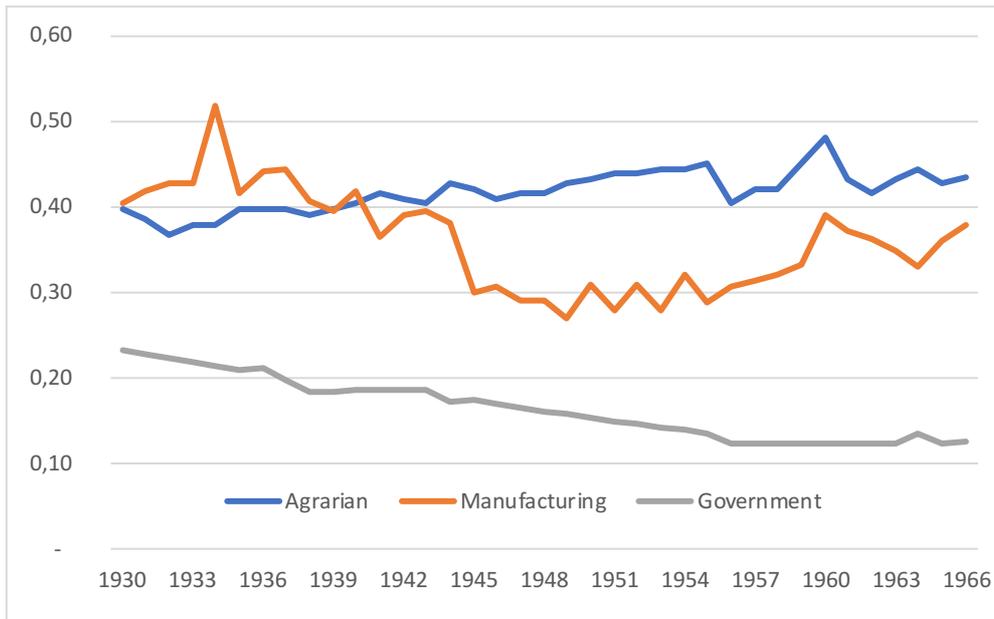
Source: Bértola and Rodríguez Weber (2015)

The decline in inequality in Uruguay took place mainly since the last years of WWII. Until the mid-1930s, inequality declined slowly, mainly due to pure economic factors: it was mainly the result of deteriorating terms of trade, that shrank the incomes of land-owners. The second phase of declining inequality can be mainly attributed to institutional factors and to structural change. This was the golden age of industrialization in Uruguay, a very short golden age, indeed. Industrialization paradoxically occurred simultaneously with a very positive terms of trade shock. Contrary to what happened with other positive terms of trade shocks, the main beneficiaries were not the landowning classes. The State controlled foreign exchange through the multiple exchange rate system, assigning different exchange rates to different import and export products, with the purpose of industrializing exported raw materials and foodstuffs, and substituting imports of final goods for raw materials to feed the domestic industry. The labor market was regulated by the introduction of wage councils, that negotiated wages on a tripartite basis. Simultaneously, agricultural production was stimulated, to increase the supply of raw materials for the domestic industry, and even for exports, as the case of wheat and linseed oil.

The result of these different measures was a sharp decline in inequality. It grew within the agrarian sector, but the weight of this sector in the structure of employment was reduced from 70% to 30%. Therefore, structural change made an important contribution to declining inequality, as shown in Graph 6. State employees and employed in the manufacturing industry increased significantly their shares. Among the civil servants, inequality was obviously relatively low, and it was further reduced during this period. Inequality also diminished within

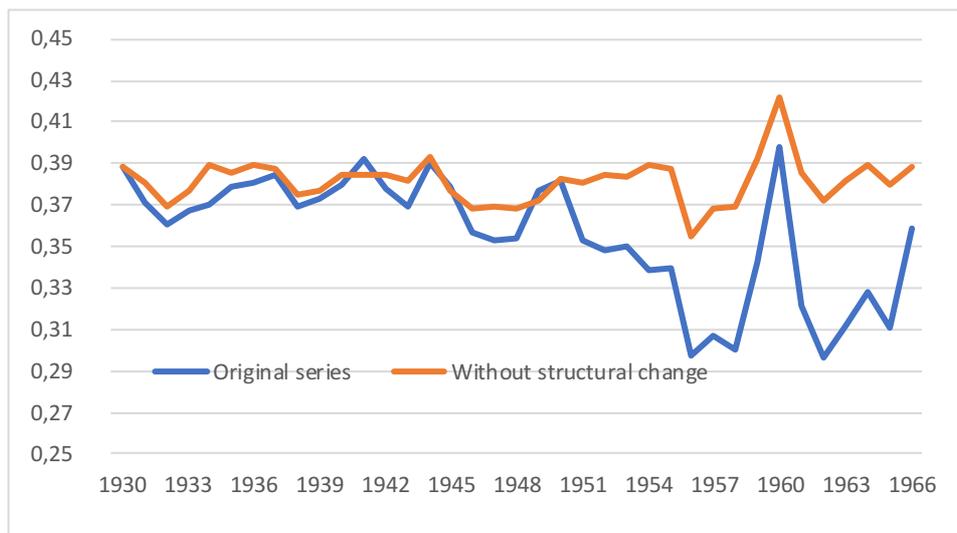
workers, and even between male and female workers, as the wage councils established that, for the same work, female wages could not be lower than 80% of that of men. Being the manufacturing sector dominated by small- and medium-scale enterprises, and being the agrarian sector dominated by large estates, inequality within the manufacturing sector was lower than within the agrarian. This is clearly shown in Graph 5.

Graph 5: Inequality levels within the three sectors, Uruguay, 1930-1966



Bértola and Rodríguez Weber (2016), based on Bértola (2005).

Graph 6: The Gini-coefficient of Uruguay: original series and series without structural change



Bértola and Rodríguez Weber (2016), based on Bértola (2005). The series without structural change assumes that that weight of the three sectors (agrarian, manufacturing and public services) remains as in 1930.

In short, contrary to what Kuznets found in the cases he studied, industrialization in Uruguay went hand in hand with declining inequality. This does not necessarily refute Kuznets findings, especially because Kuznets himself did not defend the existence of any iron law, but he advocated for a political economy approach to explain the stylized facts found. In our case, we find this other trend and the explanation lies in the combination of an extremely positive terms of trade shock, and a political economy environment favoring the diversification of the economy, trying to avoid a new backlash as that of the 1930s, when demand and prices for the primary production collapsed. However, the grounds for industrialization were very weak. The domestic market was very small and export industries based their competitiveness on rent transfers from the international economy, which, in turn, were transferred from the export sector further to the industrial sector via the differentiated exchange rates. The expansion of domestic demand, real wage increases, and the expansion of the public sector, were made possible also by productivity growth, which, in turn, depended on significant capital investment, based on relatively cheap imports of machinery and technology. The process of industrialization stagnated as soon as the terms of trade deteriorated by the mid-1950s. The economy, instead of facing a deep economic crisis, as those experienced before and those to be experienced after, in the 1980s and 2000s, went through a long period of stagnation, at the end of which a military state coup radically changed the rules of the game and inequality was significantly increased.

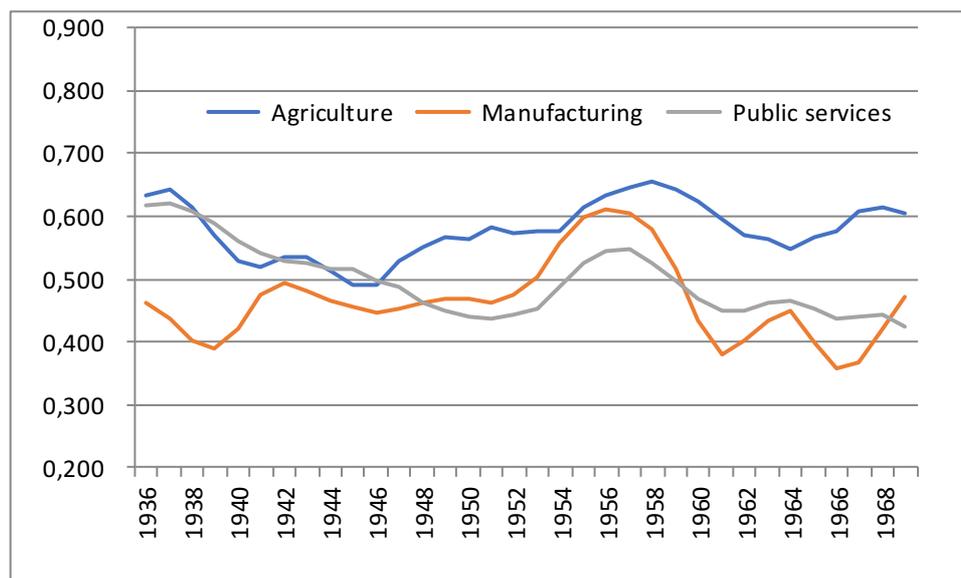
Chilean industrialization showed a different timing than that of Uruguay. It had a spurt after WWII, it diminished later, and was deepened during the 1960s. Chilean industrialization was promoted by similar measures as in Uruguay and most Latin American countries: multiple exchange rates were used to promote some exports and to hinder some imports in favor of the domestic production. As mentioned before, the progress of protectionist policies had to do with the evolution of the terms of trade, which had an impact on domestic demand and made it possible for the State to redirect the income from exports.

Structural change within the manufacturing industry of Chile was akin to that of Uruguay. No radical changes. The reduction of foodstuffs and tobacco was important in both cases. The more dynamic industries were the chemical ones in both countries, and that of metallic products in Chile. In any case, the traditional industries remained dominant, and no important change was produced in terms of industrialization of exports (Bértola and Rodríguez Weber 2016, based on Muñoz Gomá 1968: Table II.2.2 and Bértola 1990: Table A2).

The dynamics of Chilean distribution is somewhat different from that of Uruguay. The first terms of trade spurt, during the 1950s, did not lead to increased levels of industrialization. The benefits of the terms of trade were distributed in a regressive way, with increasing inequality in all sectors. The Chilean society had less egalitarian features than the Uruguayan. The *Código de Trabajo*, the Chilean labor market regulation, was approved during the dictatorship of Ibáñez in 1931. It limited negotiations at the firm level, and prohibited negotiations at the branch level, trying to hinder the level of union activity (Angell, 1972). Besides, there were important differences in the rights of white collars and blue collars. The main contribution to inequality reduction during the 1940s were due to benefits obtained by white collars (Rodríguez Weber, 2014). However, inequality between both groups of workers increased.

It was first in relation to the new upsurge of the terms of trade during the 1960s, when the political climate changed. First, the Christian Democratic government adopted developmentalist policies, including strong support to the industrial sector, as well as an agrarian reform and labor market regulation in the agrarian sector. This sector was more important in Chile than in Uruguay. It represents a higher share of employment than in Uruguay and the number of rural wage earners was more important. Later, it was the turn of the socialist government. Inequality was then reduced in all sectors, particularly in the industrial (Graph 7).

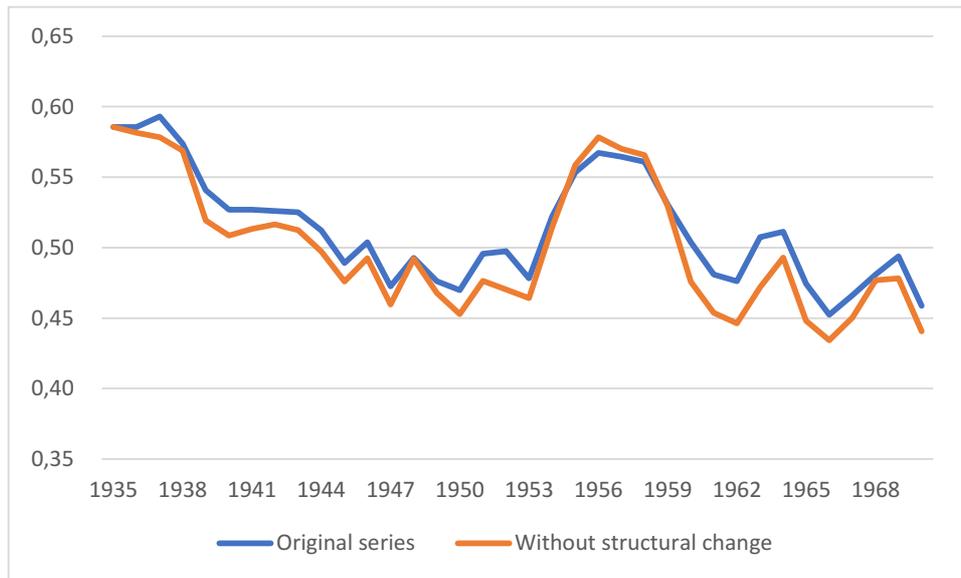
Graph 7: Inequality levels within the three sectors, Chile, 1935-1970 (three-year moving averages)



Bértola and Rodríguez Weber (2016), Based on Rodríguez Weber (2015).

As shown in Graph 8, as inequality decreased in all sectors, structural change did not make an important contribution to inequality reduction. At least, not as much as in Uruguay. In short, structural change took place and was linked to a process of inequality reduction. In the Chilean case, however, structural change *per se* did not contribute to inequality reduction.

Graph 8: The Gini-coefficient of Chile: original series and series without structural change



Source: Bértola and Rodríguez Weber (2016), based on Rodríguez Weber.

4.2. The Southern Cone: Argentina

Unfortunately, we do not have comparable information for the Argentine case. The most important work on Argentine inequality is that of Facundo Alvaredo (2010). He estimates the income share of Argentine top incomes, a work framed within the top income project led by Atkinson and Piketty (2007 and 2010).

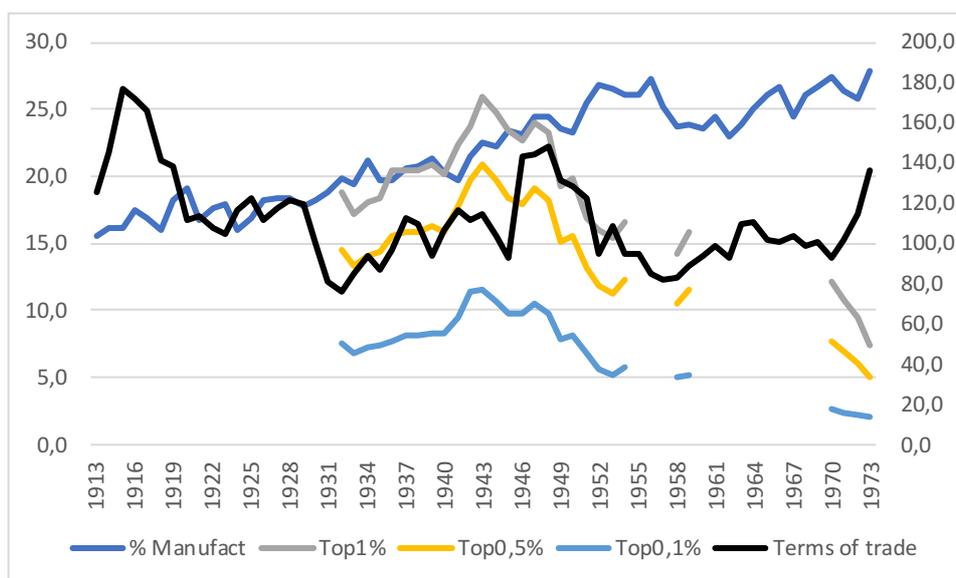
If the top income share of total income is a good proxy for total inequality, we can conclude from Graph 9 that inequality experienced significant fluctuations: it rose during the 1930s, declined sharply during the late 1940s and early 1950s, and continued to decline more slowly afterwards. We lack information for the early 1960s. According to Altimir (1986, Table 7), the Gini-coefficient for the whole country was 0.400 in 1953, 0.447 in 1959, 0.419 in 1961, and 0.353 in 1972. In other words, it seems that inequality rose during a short period at the end of the 1950s and early 1960s and continued to decrease afterwards.

Ferrer had noticed that income distribution in Argentina had been subject to important fluctuations, due to the existence of many contradictory forces in a context of price and political instability. In favor of reduced inequality, forces like low unemployment, structural change (the labor share in manufacturing was almost twice as high as in the agrarian sector), the role of unions. In favor of inequality, concentration of investment and income in the industrial sector, hidden unemployment in the cities, and among state employees. As no important differences could be found between the incomes of the lower deciles of the distribution, and as the middle classes expanded, at the end of the period inequality was decreasing. Nevertheless, the top incomes remained high (2008: 347-351).

Argentina was the story of great success during the *Belle Époque*. It ranked among the richest countries in the world, it attracted huge amounts of immigrants, real wages in Buenos Aires were not so far away from wages paid in the core economies (Bértola and Román, 2018). This, together with the fact that, akin the Uruguayan case, landowners were a concentrated but

numerous elite, could imply that inequality levels were not extremely high. Nevertheless, land prices and rents went up significantly, a process of concentration of land took place and massive immigration contributed to press down real wages. Besides, the regional elites producing consumer goods for the home market, based on domestic raw materials and enjoying protectionist policies, created important inequality in the provinces, where the Indo-American population was numerous.

Graph 9: Argentina: Industrialization level, terms of trade and top incomes, 1913-1973



Sources: Industrialization, MOXLAD; Terms of Trade, Bértola and Ocampo (2012); top Incomes, Alvaredo (2010).

As in the Uruguayan case, the terms of trade of Argentina deteriorated after WWI, stabilized during the 1920s and fell further during the early years of the 1930s. The recovery was rapid, and terms of trade peaked in the late 1940s and early 1950s. It is possible to assume, that the top income shares were higher in the 1910s and that they experienced some reduction during the 1920s and early 1930s, due to falling export prices. During the 1930s, defensive policies were implemented, as almost everywhere in Latin America, to balance trade. As seen in Graph 9, within the context of crisis, recovery and slow growth, the share of the manufacturing industry increased. Nevertheless, it took place within a conservative and authoritarian atmosphere. The period, known as the Conservative Restoration and the Infamous Decade, featured by repression to unions, political fraud and regressive social policy, led to increasing inequality. The trend changed in the post-WWII period. The terms of trade continued to improve, and industrialization was deepened. Nevertheless, the political climate changed drastically. Peron's regime, 1946-1955, specially during the initial years, produced a radical redistribution of the incomes coming from foreign trade. It promoted new industrial sectors, a new industrialist class was strengthened, the wealth of the traditional sectors was attracted to industry, and welfare policies were expanded. Unions were significantly strengthened, and a numerous middle class came into the scene.

Even if the Argentine case has several similarities to the Uruguayan, important differences must be noticed. The Argentina economy is much greater and more diversified. The political

context is different too. While Uruguay experienced these changes within a democratic environment, with an independent labor movement and without the features of populism, the Argentine process was more authoritarian, the labor movement was vertically integrated to the forces at government, where the military and the Peronist party showed clear populist features and even some affinities with the Nazi-regime.

Since Peron's fall, the Argentine economy continued to grow, but growth was unstable. The stop-and-go pattern of growth was determined by several contradictions: industrialization demanded increasing amounts of imports of capital goods, fuels and raw materials. No matter how much exports could grow, imports tended to grow faster. Besides, the domestic sector competed with the export sector in the demand for raw materials. The social classes linked to the domestic market and industrialism, on the one side, and the export-oriented agrarian sector, on the other, never could agree on a development strategy. The Peronist and the *Gorilas* fought a permanent fight, with important political instability as an outcome. Despite that, the size of the domestic market, and some increase in industrialized exports, made it possible for the process of industrialization to continue, until the early 1970s, when the model finally collapsed, due to a combination of structural and political economy forces. A decade of violence, inflation and stagnation, ended up, as in Chile, Uruguay and previously Brazil, in a state-coup, a military regime and drastic changes in the economic policy, that led to significantly worsened income distribution.

4.3. An Afro-American case: Brazil

Afro-American societies are featured by the presence of a large share of black people, whose origin is the slave system organized to produce commodities, mainly for exports. In the case of Brazil, sugar cane and coffee were the most important, but not the only ones.

Is it possible to separate slavery from colonial rule? Not at all. Slavery was a colonial institution, it was organized by the colonial power. Even more, slavery was a colonial system, which involved several colonial powers, who cooperated on this matter.

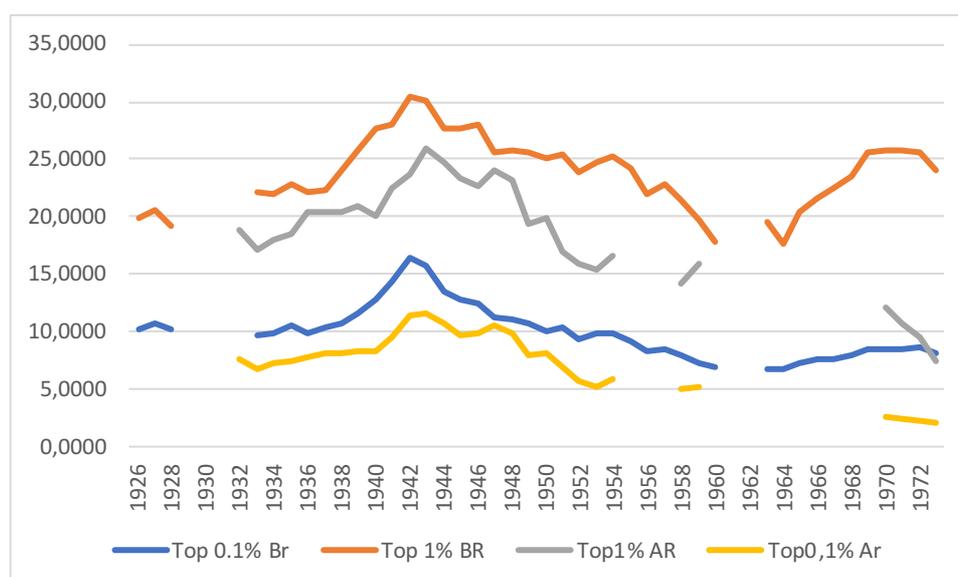
Slavery was abolished in Latin America well advanced the 19th century. Abolition took place later, where it played a more important role, which is not difficult to understand in terms of political economy. In the case of Brazil, it had to wait until the late 1880s.

Slavery and ethnic discrimination had long-run impacts on the Brazilian labor market. Brazil has been the most unequal Latin American nation since there exist reliable sources to measure it. And recent estimates on top incomes confirm it.

Unfortunately, in the case of Brazil, as in the case of Argentina, we have not as complete information as for Chile and Uruguay. Fortunately, we have a rather new estimate of top income shares (Ferreira de Souza, 2017), which is similar and comparable to that of Alvaredo for Argentina. A first conclusion arising from both series, as shown in Graph 10, is that Brazilian inequality has been always higher than that of Argentina. It is worth mentioning that Argentina was not a particularly equal society, as measured by the share of top incomes. Alvaredo shows that, at least up to 1950, and probably even more during the whole *Belle Epoque*, the top share of income was clearly above that of France, Spain, the USA, Canada, New Zealand, Australia, Italy and Portugal (Alvaredo 2010, Figures 6.3-5). Then, Brazilian top income shares

were very much above those of the mentioned countries. Colonial heritage? No doubt. We must also remember that, after the Napoleonic Wars, the Portuguese court moved to Brazil, and Brazil became a strange combination of colony and empire, an empire without colonies, can be said. The colonial heritage was reshaped during the late 19th and early 20th century, and left Brazil in a development path that can be understood in terms of the Lewis model (1954), i.e., a process of economic growth with unlimited supply of labor, in which capital accumulation can take place, absorbing labor without significant improvements in real wages. The Lewis approach has similarities with Kuznets', to some extent, as Kuznets industrialization phase with increasing inequality can be considered as the phase of traditional growth according to Lewis, before the labor surplus is absorbed and a second phase of commercial growth starts, with increasing real wages and falling inequality. Prebisch, contemporary to both Lewis and Kuznets, had a similar approach. According to him, the structure of the Latin American labor markets, with low unionization levels in the agrarian sector, allowed to continue to export primary products at low prices, thanks to inelastic wages. Contrary to Lewis, Prebisch (1950, 1971) did not believe that promoting labor intensive activities should allow to reach the commercial phase, but, as it is well-known, he advocated for more aggressive industrialist policies, altering the way in which the Latin American countries took part of international trade.

Graph 10: Top incomes in Argentina (1931-1973) and Brazil (1925-1973)



Source: Argentina, Alvaredo 2010; Brazil, Ferreira de Souza 2017.

The timing of Brazilian industrialization and the related dynamics of distribution have many specificities. Graph 11 reproduces some of the relevant information.

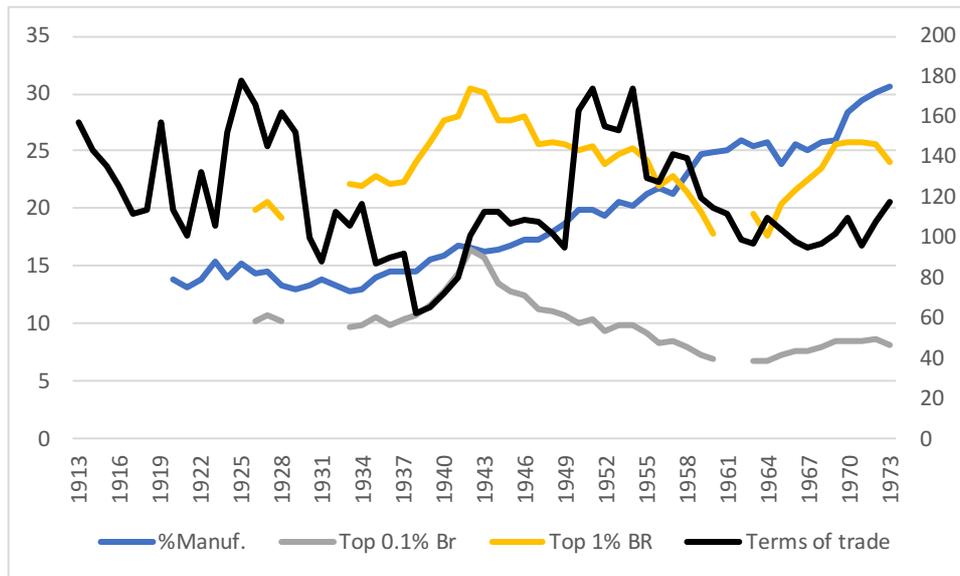
Brazilian industrialization starts somewhat later than the Argentine. Of course, Brazil had important industries already in the late 19th century, and many others flourished at the beginning of the 20th century, especially in the Sao Paulo region. However, as a share of GDP, the increase started during WWII and continued steadily up to the 1970s. Contrary to the

Argentine case, a strong and stable alliance between the State, the industrial elites of Sao Paulo and Minas Gerais and multinational enterprises, gave place to a comprehensive set of industrial policy measures and institutions (Suzigan, 1996).

During the 1930s, the share of the manufacturing sector decreased slightly, but started to recover thanks relative price movements and to the different policy measures taken to balance trade, as in most of the Latin American countries. The terms of trade recovered, as well as GDP growth. The manufacturing share of GDP had recovered its pre-crisis levels by the end of the decade and continued to increase afterwards. During the 1930s, the recovery of growth and the terms trade led to a significant increase in inequality, precisely as it did in the Argentine case. A new terms of trade boom took place between 1949 and 1955, but then, inequality was strongly reduced. The causes of this are less clear. The State played an important role, through different measures that tried to expand domestic consumption. New industrial sectors, the services, the urban economy in general, and the middle classes appeared in the scene. Nevertheless, if compared to the Argentine case, the drop in top income shares was far less important. It was first by the end of the 1950s that some convergence with Argentina can be noticed, when Argentina experienced a transitory increase in top income shares. However, the reduction of top incomes in Brazil in the second half of the 1950s had more to do with diminishing export incomes, due to the fall of the terms of trade, than to the progress made in terms of structural change and policy measures. The reaction to this new environment, with diminishing external rents and increased pressure from the labor movement and the middle classes, was an early State coup (as compared to Argentina, Chile and Uruguay). The new economic policy combined a developmentalist agenda (continued and deepened industrialization, based on an important role of the State, and export-orientation, the expansion of consumption of upper and middle classes), together with an aggressive policy against unions and other social and political movements.

Then, while Argentina maintained, in spite of political fluctuations, the developmentalist agenda, trying to expand domestic demand with continued reduction of inequality, Brazil became the pioneer of an authoritarian reaction and experienced a process of profound increase in inequality. Thus, Brazil returned to, and reinforced, the high inequality levels, consolidating a Lewis-like growth model. Nonetheless, industrialization finally created a strong working-class elite, mainly located in the ABC region of Sao Paulo, with relatively high incomes, as well as social and political power, which differentiated them from the bulk of the poor population. This was the origin of the *Partido dos Trabalhadores*, led by Lula da Silva.

Graph 10: Brazil: Industrialization level, terms of trade and top incomes, 1913-1973



Sources: Industrialization, MOXLAD; Terms of Trade, Bértola and Ocampo (2012); top Incomes, Ferreira de Souza 2017.

4.4. An Indo-American case: Mexico

The information we have for Mexico is not very good, from my point of view, but it allows us to advance a somewhat speculative discussion.

Mexican economic, social and political history during the 20th century is a very interesting and complex one.

Industrialization made progress during the 1920s, which was probably a recovery from the backlash of the years of the revolution. Industrialization levels prior to the revolution could have been like those of the late 1920s. The late 1930s and the WWI years showed a spurt in industrialization levels, but the 1950s did not show much structural change in this matter. A new wave of industrialization took place during the 1960s.

In Mexico, the terms of trade had already started to fall in the 1920s, and they continued to do it after the crisis. The measures implemented by the government to face the crisis were similar as everywhere else: drastic devaluation, currency controls, multiple exchange rate system, tariffs, investment in infrastructure. The period 1934-1940, led by President Lázaro Cárdenas, can be regarded as that of the beginning of the developmental State. Radical land redistribution, expropriation and nationalization of foreign oil companies, progress in social policy. While the agrarian sector grew rather slowly, industrial growth was important (Cárdenas Sánchez, 2015). This nationalist period was said to be the origin of a rather strong Mexican industrial class (Barchelata, 2012:81).

In terms of income distribution, information is scarce. Obviously, land reform produced an egalitarian wave, despite sluggish output growth. During the 1930s, more than 70% of the population was rural. The impact on total inequality must have been noticeable. The only

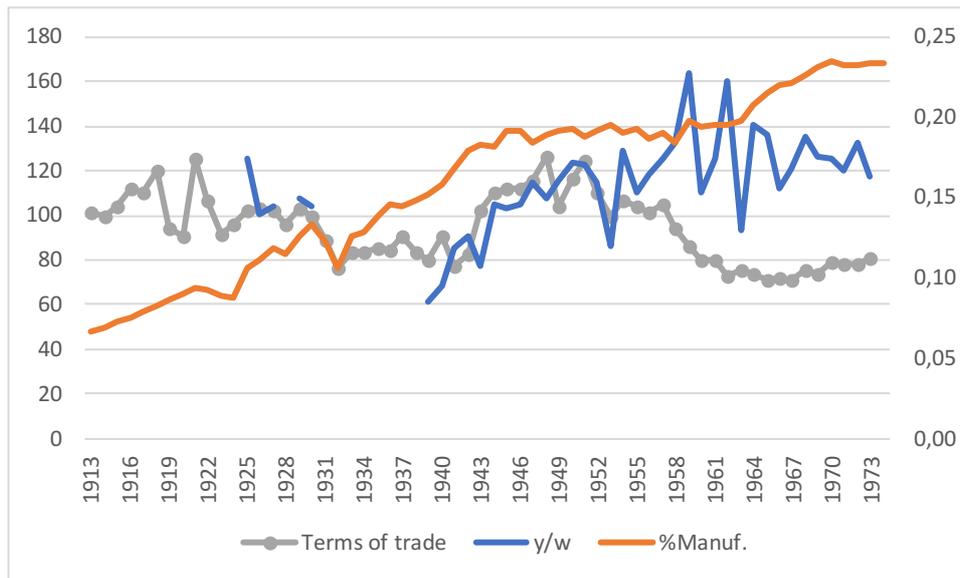
available long-run series at our disposal is that of Bleyntat, Challú and Segal (2017). The authors construct a series of urban un-skilled real wages (w) and compare it to a per worker GDP series (y). The y/w ratio is seen as an inequality proxy. In doing that, the authors follow a widespread practice in estimates of inequality trends.

While the proxy may be useful within certain limits and contexts, it is very dangerous to use it without caution. Many biases may be at work, particularly when we are studying periods of important structural change, as the one we are considering now. One interesting example is a study of rural Buenos Aires during the central decades of the 19th century. Then, a similar proxy, the rental/wage ratio, showed how the income of landowners grew much more than wages. Nevertheless, the great expansion of agrarian production led to the massive employment of rural workers. The number of workers was so important, that, despite rising rental/wage ratios, the Gini-coefficient diminished (Bértola, Gelman and Santilli, 2015). The Mexican series we are discussing is based on urban workers. The structural change of the period is striking: the rural population went down from more than 70% in the 1920s to near 20% in the 1970s. While I will use the Bleyntat et. al. series, I will, when possible, complement it with data on wage shares, which also give an idea about the total amount paid to workers. It is some kind of top incomes measure.

Bleyntat et. al. argue that many sources point to the same result during the Lázaro Cárdenas regime 1934-40: a drastic reduction of inequality took place, reaching the lowest levels of the century. Cárdenas Sánchez (2015, p. 472) is not that positive: he argues that real wages in the industrial sector did not grow as much as productivity, and that inflation eroded some of the gains in nominal wages. Nevertheless, if we think that the bulk of the population was rural, we can still accept that inequality may have been reduced, at least in relation to the 1920s.

The war years showed a recovery of the export sector, significantly improved terms of trade led by war demand (Graph 11). Exports multiplied by 2.7 in six years. The manufacturing share of GDP continued to increase, but growth was not led by import-substitution, but by exports. It was an inflationary period and wages lost around 20% of their purchasing power. The wage share was reduced from 29.1% to 22.6% from 1940 to 1945. Besides, the skill-premium and the number of skilled workers increased (Moreno-Brid, 2009, p. 101). All these factors probably led to a reversal of the egalitarian wave of the late 1930s. This is what Bleyntat et.al. show, as in Graph 11.

Graph 11: Mexico: Industrialization levels, terms of trade (1930=100) 1913-1973, and per worker GDP/wage ratio (y/w), 1926-1973



Sources: Industrialization, MOXLAD; Terms of Trade, Bértola and Ocampo (2012); y/w, Bleynt, Challú and Segal (2017, Figure 1). y=GDP per worker; w=real wage

The decade 1945-1955 was featured by fast manufacturing growth, but the agricultural sector did also grow very fast, as well as the service sector. Despite being growth led by the manufacturing industry, no radical increase in its share of total GDP is noticed. Growth changed direction, as it was mainly directed to the domestic market, combining import-substitution and the expansion of domestic demand. A new commercial agrarian sector appeared in the north and northwestern regions, quite different from the peasant economy of the *ejidos*. Besides, foreign investment in manufacturing was very important, and enjoyed similar protectionist policies as the national enterprises. By the end of the 1950s foreign investment in the manufacturing sector was almost 20 times higher than in the late 1920s, and the share of total foreign investment in the manufacturing sector had increased from 6% to 42% (Barchelata, Table 14).

As in other Latin American countries, rapid growth was made possible by fluent currency inflows, but as the growth process advanced, demand for imports tended to grow faster than exports demand, and balance of trade and payments problems arose. The period was featured by successive devaluations and inflation pressures. Moreno-Brid (2009, p. 107) shows evidence about real wages growing at 1% a year and that the wage share increased from 23% in 1945 to 27% in 1955. However, this increase in the wage share may be the result of an increase in the number of wage-earners. Bleynt et.al, on the contrary, report a continued increase in the y/w ratio until the late 1950s, i.e., rising inequality. Unfortunately, we cannot come to clear conclusions on the result of these two interacting forces.

The period 1956-1970 has been labelled as stabilizing development, or the Golden Age of Mexico's modern economic growth. This was a period of fast industrialization, fast economic growth and low inflation. The rural population was significantly reduced, and agricultural GDP grew more slowly than population, thus creating demand for imported cereals. Real wages

increased during 15 years at 4.5% a year. Domestic demand expansion was the main source of growth. The manufacturing industry was transformed, increasing the share of heavy intermediates, consumer durables and capital goods (Moreno-Brid, 2009, pp. 107-110).

During the 1960s, and according to Bleynt et. al, inequality was reduced. Moreno-Brid, based on household data, and being very cautious, also comes to the same conclusion: the share of the poorest 40% stagnated; the share of the richest 10% was reduced from 47% to 42%, while the middle classes (deciles 5-9) were the winners, increasing their share from 42 to 47%. In short, it seems that the middle classes improved their relative positions, while the poorest, even if radically increasing their incomes, did not win the distributional struggle. Of course, they did not lose it, which, in the Latin American context, was not bad.

Bleynt et. al. concludes, referring to the whole period of industrialization, that “Regardless of the authoritarian tendencies of the regime, our data suggests that the combination of developmentalist and redistributive policies sustained the lowest levels of inequality seen in the twentieth century.” (p. 14). Indeed, we know that inequality rose dramatically during the 1980 and 1990s, and Bleynt et. al.’s data also suggest that inequality significantly increased during the Porfiriato, at the end of the 19th century.

This had also an impact on the structure of manufacturing production. Some authors argue that, as different from industrial growth during the 1930s, postwar growth was not orientated towards massive production of basic consumption goods, but towards more luxurious goods, for the consumption of upper and middles classes (Barchelatta, 2012).

The role of the State in the distributional process was decisive and the State, during this period, was led by the almost exclusive Partido Revolucionario Institucional (PRI). The State was very powerful in the determination of raw material and foodstuffs prices. The PRI controlled the labor movement and was able to give and take privileges to a from the industrial sector, who was very much linked to an important group of State-owned enterprises. The distributional struggle was to a high extent mediated by the State.

From my point of view, the story is as follows: the 1930s were years of decreasing inequality and initial industrialization; industrialization continued during WWII with increasing inequality; inequality continued to increase in 1945-1955, in a context of fast growth without structural change; it was first in the 1960s that a new period of industrialization took place, but now, with clearly decreasing inequality and more profound structural change. However, inequality reduction was mainly due to the widening of the middle class, more than by the significant improvements of the income of the first deciles of the distribution. Nevertheless, by the end of the period, inequality levels were similar to those of the 1920s, and well above those of the 1930s. Then, the Mexican case looks more like the Brazilian one, resembling the Lewis type growth model. Contrary to Lewis expectations, the exhaustion of the model led to a new wave of growing inequality.

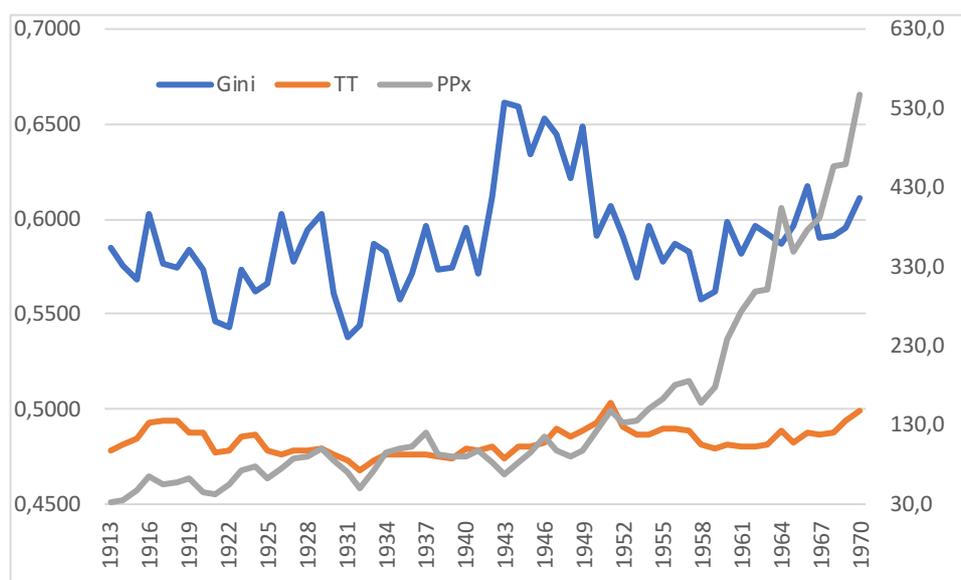
4.5. A short comment on another Indo-American case: Peru

Even if Perú was originally included in our group of countries, the lack of information on Peruvian inequality forced me to avoid this case. However, when this version of the paper was

almost ready, I came in touch with a new estimate of Peruvian income distribution. Thus, I will add here a short comment on this case.

Graph 12 presents the unpublished Gini-coefficient recently estimated by Palomino and Seminario, kindly provided by the authors, together with the terms of trade and the purchasing power of exports.

Graph 12. Terms of trade, Purchasing Power of Exports (1929=100, right) and Gini-coefficient (left) in Perú, 1913-1970



Sources: Terms of trade and Purchasing Power of Exports, Bértola and Ocampo (2012); Gini-coefficient, Palomino and Seminario, un-published, based on data of functional inequality and regional inequality.

Peru is among the Indo-American countries. It showed clear differences in the territory. Indo-American population lived mainly in the Andean regions, *la sierra*, while the coastal regions were the center of white settlement, as well as of black population, previously slaves, working in *plantage* economies, like sugar and cotton.

Peru can be considered as another case showing high structural inequality but also exposed to important fluctuations, due to both price movements and political changes.

During the First Globalization Boom, Peru diverged from world leaders and even from Euro-American societies. Its economic performance was rather good during the 1920s, due to an important growth of export volumes of minerals and raw materials, despite falling terms of trade. According to Palomino and Seminario, no clear trend in income distribution can be found during this period. Peru suffered the 1929-year crisis and depression as every other Latin American country. However, the economic and social conditions did not lead to a process of industrialization. The adjustment was rather passive. As different from the Euro-American countries and Mexico, who started to industrialize in the 1930s, and of Brazil, who started to industrialize during WWII, Peru's industrialization took place during the 1950s and 1960s. And it did it under quite different circumstances: by then the world market for minerals and

tropical products was expanding. Peruvian growth was clearly an export-led growth. The composition of exports moved in favor of copper, silver, oil and fish flour. The traditional sectors, like cotton and sugar shrank.

The political orientation was also different than in other Latin American countries. The State-coup of 1948 and the President Odría, applied a clear *laissez-faire* policy and was particularly open to foreign investment. The main five foreign companies controlled on average 70% of total exports of metals.

The process of industrialization is explained by Thorp and Bertram as the result of two factors. On the one side, investment opportunities in the export sector were diminishing, as well as profitability in the sector. On the other side, the rapid demographic growth produced the appearance of many conflicts in the country side, with demand for land from the peasant movements, as well as an important immigration to the urban areas. These conflicts were expressed in different political movements, some of them successful in the national elections, giving place to an important political instability. The social agenda was making progress, but it also coincided with the interest of foreign companies, who saw investment opportunities in the domestic market, where a growing middle class was demanding new consumption goods (Thorp and Bertram, 1977), as it was also the case in Mexico.

In spite of the process of industrialization, the country remained to a high extent rural. Between 1950 and 1970, the labor force employed in agriculture went down from 60% to 44%, i.e., still a very high level of rural employment (Thorp and Bertram, 1977, Table 13.2).

Inequality increased during WWII, when raw material exports were exported, and the terms of trade improved, up to the early 1950s. During the following decade, the 1950s, the terms of trade deteriorated, but the volume of exports continued to grow. This growth accelerated during the 1960s, with slightly improved terms of trade. The Gini-coefficient was reduced to "historical" levels when the terms of trade boom ended, but it increased slightly during the 1960s. The relation between terms of trade and distribution seems to be clear.

The estimates presented here have an additional problem: the income appropriated by foreign companies, who were not only important in the primary production but also in the manufacturing sector, in services and banking.

By the 1960s Perú was considered as one of the most unequal societies in the world, even more unequal than Brazil and Mexico. As we will see, this is also the country in which welfare policies were less developed.

5. Inequality, human development and welfare policies

In this section, I will try to show how welfare policies deepened the differences between the Latin American countries in terms of inequality. The results of these differences may be approached by inequality in human development.

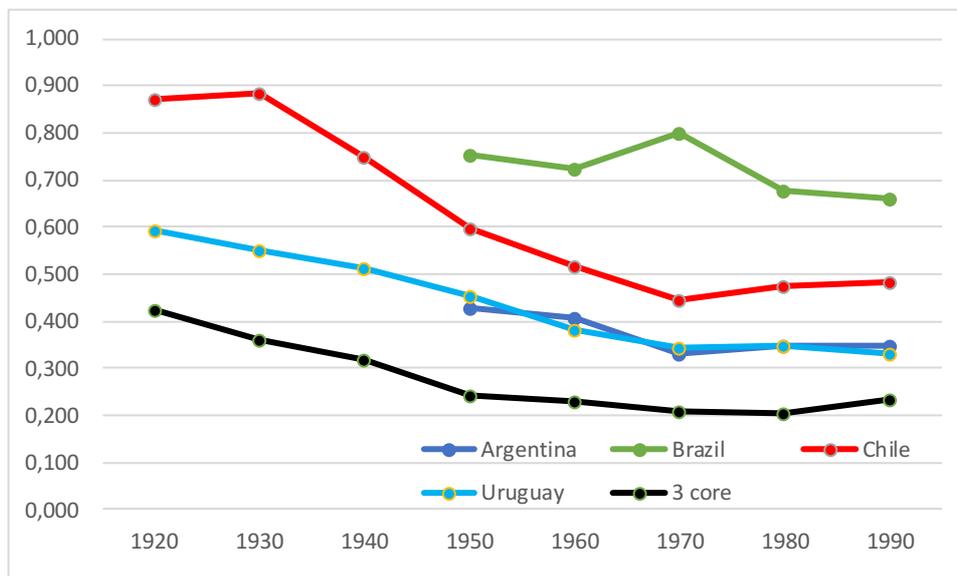
A paper by Bértola, Hernández, Rodríguez Weber and Siniscalchi (2013) presents an attempt to construct an Inequality Adjusted Historical Human Development Index for a set of 16 countries from different regions, including Latin America: Argentina, Brazil, Chile and Uruguay. The idea was to correct the Historical Human Development Index by an inequality index. The inequality

index is the geometric average of the Gini-coefficients of the distribution of income, life expectancy at birth and years of education.

Graph 13 shows the inequality indices. Many interesting conclusions may be drawn:

- The inequality levels of the Latin American countries were always well-above those of the core countries.
- The inequality levels within the four Latin American countries reproduce rather well the inequality levels we discussed before, when taking only income inequality into consideration: Argentina and Uruguay with lower inequality, Chile at a higher level, and Brazil being the most unequal. We have no similar data for Mexico.
- All the countries, Latin American and core, went through a process of sharp decline in inequality, up to around 1970. While the sharp decline in the core was prior to the 1950s, in Uruguay deepened in the 1950s and in Argentina in the 1960s. In Chile the reduction took place mainly between the 1930s and 1950s but continued up to around 1970. We do not have data for Brazil prior to 1950. We can assume that inequality was very high and decreased during these two decades, as well as in the 1950s. The results of the state coup and the new economic model in terms of increasing inequality is clearly reflected, also in human development.
- The egalitarian trend was over by the beginning of the 1970s. In the core countries, the turn took place one decade later.

Graph 13: An Inequality Index of Human Development, 1920-1990



Source: Bértola, L. M. Hernández, J. Rodríguez Weber and S. Siniscalchi (2013). Geometric average of the Gini-coefficients of income, life expectancy at birth and years of education. Three core countries: France, Germany and United Kingdom. Three core countries: France, UK and USA.

The extent to which welfare policies were developed by the different Latin American countries was discussed by Fernando Filgueira (2005). He argues that no Latin American country had a welfare state. He prefers to talk about Social States: “a group of policies concerned with transfers, subsidies and services that resemble a social safety net and a set of redistributive

transfers and services.” He proposes a typology of three different kinds of Social State: stratified universalistic, dual and exclusionary. The six countries we are discussing are in the first two groups: Argentina, Chile and Uruguay, are stratified universalistic; Brazil and Mexico are dual. Perú is considered as something between a dualistic and an exclusionary regime. The pure exclusionary are naturally out of our group, as the Social State characteristics of these countries reflect a lower level of development, a very limited access to benefits and protection and a limited degree of industrialization.

Stratified Universalistic Social States were based on contending elites seeking popular support. By 1970, in these countries, a clear majority of the population was protected by the social security system and the health services. Access to primary education was universal and more than half of the population had access to secondary education. Thus, “these countries offered extended levels of decommodification in what concerns both the provision of services out of the market and the provision of monetary benefits to the elderly and those unable to work”. The benefits of the system were strongly stratified in terms of access and quality, but the benefits contributed to reduce original inequalities.

Dual Regimes, such as those of Mexico and Brazil, were based on powerful elites, who managed to coopt and repress the popular sectors. By 1970 they had achieved almost universal primary education and an important, but strongly stratified, health coverage. Social security coverage was not universal, but strongly stratified. As they are large countries, regional differences were very important. The Social States were often labelled as populist (Cárdenas in México, Vargas in Brazil): while the Mexican revolution was the origin of the social movements and mass mobilization, the modern working class and the new urban middle classes were the support for Vargas.

A particular case is Peru. During the 1930s and early 1940s, the country followed a similar path as the other dual economies, Brazil and Mexico. However, social states had to be linked to a more profound economic transformation. This transformation did not take place in Peru. The political orientation taken by the country since the liberal State-coup of 1948, reverted the progress made by the country in the construction of a dual social state and put it, on the contrary, in the direction of an exclusionary state (Filgueria, 2005).

Table 4 summarizes some indicators of social development, which clearly show how the differences in the Social States deepened the differences between our countries.

Table 4. Social indicators 1970 and relative performance in Human Development 1930-1970

	Indo-American	Afro-American	Euro-Indo	Euro-American	
	México	Brazil	Chile	Argentina	Uruguay
A. Social indicators					
Households below poverty line	34,0	49,0	17,0	8,0	10,0
Households below indigence line	12,0	25,0	6,0	1,0	4,0
Illiteracy rate	25,8	33,6	11,0	7,4	10,2
Infant mortality	60,0	95,0	62,0	41,0	47,0
% children vaccinated against TBC	80,0	66,0	98,0	93,0	97,0
Life expectancy at birth	62,7	59,8	64,2	68,4	68,6
% covered by Social Security in EAP	28,1	27,0	75,6	78,9	95,4
% covered by Social Security in total populaz	53,4	47,0	67,3	68,0	68,5
Social expenditure as % of GDP	6,0	8,2	13,7	16,2	17,0
% enrolled in primary education of age gro	104,0	82,0	107,0	105,0	112,0
% enrolled in secondary education of age g	22,0	26,0	39,0	44,0	59,0
B. Relative performance in Human Development					
Relative per capita GDP 1930	29,5	18,3	55,2	80,3	78,3
Relative per capita GDP 1970	33,1	21,7	39,2	58,2	39,0
Relative Human Development Index 1930		19,9	37,7	60,6	52,0
Relative Human Development Index 1970		25,6	50,8	60,5	51,3
Relative Inequality Adjusted HDI 1930			6,8		36,3
Relative Inequality Adjusted HDI 1950		7,6	24,0	46,3	42,5
Relative Inequality Adjusted HDI 1970		8,0	35,8	51,2	42,6

Sources: A. Filgueira (2005); B. Bértola, Hernández, Rodríguez and Siniscalchi 2013. Relative performance is expressed in relation to the core countries: France, UK and USA.

Viewed up close: a typology for industrialization, income distribution and social development in Latin America

Industrialization took place in a group of Latin American countries between 1930 and 1970. In this paper, I have identified those countries in which industrialization was more important and selected a group of five countries, for which there existed sufficient sources to discuss inequality trends: Argentina, Brazil, Chile, México and Uruguay. Peru was also considered in the last minute, as a new estimate became available. The quality of the sources differs significantly. While social tables are available for Chile and Uruguay, we have only access to top income series for Argentina and Brazil. The data for Mexico and Peru is less reliable.

The dynamics of the relation between industrialization and income distribution was studied from a political economy approach, taking into consideration the particular context in which industrialization took place. Industrialization was stimulated by relative price movements, but it was mainly, at the beginning, a defensive policy reaction to the dramatic collapse of the world markets. Later, it became a more articulated development policy. The degree of industrialization had to do with previous achievements in terms of per capita income and economic and social diversification, which also had to do with the size of the domestic markets. It had also very much to do with the social and political alliances, created in order to promote reallocation of resources.

Inequality was discussed on two grounds. First, at the international level, proxied by relative per capita GDP. This level of inequality is closely related to the patterns of productive

specialization. The paper did not focus on this part of the story, but it was always taken into consideration. Second, domestic inequality is not only an important component of total inequality, but it is also articulated to international inequality, as it contributes to the definition of the pattern of integration into the world economy. The way in which the natural resources are appropriated and the way in which the labor force is mobilized, play an important role in the definition of productivity growth, structural change, international competitiveness and, again, distribution. The interrelation between those two components adopted different forms in the different Latin American countries. I followed the typology proposed by Cardoso and Pérez Brignoli, and later developed by Bértola and Ocampo, to identify at least three groups of countries: the Indo-American, represented by México and Peru; the Afro-American, represented by Brazil, and the Euro-American, represented mainly by Argentina and Uruguay, but also Chile. The ethnic description implies different forms of labor relations and property structures.

When discussing the relation with the world economy, the terms of trade appeared as an important source of changes in different social groups income, and a center for policy making and distributional struggles. The terms of trade do not explain long-run trends in development, but they do explain fluctuations and cyclical movements.

I have followed the dynamics of industrialization and distribution in these six countries, and, in order to have a more complete approach to inequality, I added a discussion of inequality in terms of human development, related to the kind of social states or welfare regimes, prevailing in the different countries.

Table 5 summarizes the main features of the process in the five selected countries.

Table 5. Latin American Industrialization and income distribution: a typology

	Indo-American	Indo-American		Afro-American		Indo-Euro American	Euro-American	Euro-American
	México	Peru		Brazil		Chile	Argentina	Uruguay
Size	Large	Medium		Large		Medium	Medium	Small
Industrialization	Medium	Moderate		Heavy		Medium	Medium	Moderate
Inequality level	Very high	Very high		Very high		High	Moderate	Moderate
Inequality reduction	No	No		Moderate		High	High	High
Relative per capita GDP	Convergence	Stable		Convergence		Divergence	Divergence	Divergence
Social State	Dual	Dual to exclusionary		Dual		Stratified universalism	Stratified universalism	stratified universalism
Social convergence	No or Weak	No		Very weak		Important	Moderate	Moderate
Relative social development	Low to Very low	Very low		Very Low		Low to Medium	Medium	Medium

Own construction

One first conclusion to be drawn is that the Kuznets-like approach to industrialization does not apply to Latin America. There is no first phase of industrialization with increasing inequality. This cannot be taken as a rule in the Latin American case. Moreover, what we can find in most countries is the existence of structurally high inequality levels with important fluctuation due to economic and socio-political factors.

Inequality levels varied significantly between the different Latin American countries before industrialization. High inequality levels prevailed in Latin America and, no doubt, inequality was higher in the so-called Afro-American countries, but also in the Indo-American ones. Any attempt to disconnect Latin American high inequality from the colonial heritage, looks like an

artificial construction. Inequality changed its features, as Latin America was transformed into a peripheral capitalist region, abolishing slavery and deepening the creation of a capitalist labor market in the Indo-American regions.

Afro-American and Indo-American regions diverged significantly from the world leaders during the 19th century, while the Euro-Americans performed rather well: they grew fast and achieved relatively high per capita incomes. In any case, Latin America was a laggard region, in terms of per capita income and in terms of their technological capabilities. The pattern of productive specialization was reflected in a huge concentration of exports in a very few export products with a high content of natural resources.

During the period of industrialization, the relative performance of the Latin American countries changed direction: Euro-Americans diverged with world leaders, while Afro- and Indo-American slightly converged, except for Peru. At the end of the period, an important convergence among Latin American countries had taken place, but the differences and the ranking between them remained almost the same. The Euro-American became more Latin American.

Paradoxically, those who performed worse in terms of international inequality, performed much better in terms of domestic inequality. Argentina and Uruguay, the countries with lower inequality, were those who reduced inequality the more. Chile, also, reduced inequality in a significant way, even if its levels were always much higher than those of Uruguay, for example. In all the three cases we find periods of fast industrialization linked to positive terms of trade shocks, whose benefits were distributed, though different social and political alliances, in order to promote structural change and inequality reduction. The timing was different in the three countries, and the degree to which the process could continue when the external positive shock vanished, depended very much on the size and income level at the domestic market: thus, Argentina could continue to industrialize in the 1960s, while Uruguay stagnated already in the 1950s. The role of structural change in inequality reduction was more noticeable in Uruguay than in Chile, where inequality diminished in all sectors.

Brazil and Mexico, who converged slightly with world leaders, did not show important results in terms of inequality reduction. The evidence for Mexico is weak, industrialization and inequality reduction can be found in the 1930s, and in the 1960s. However, between those two periods inequality grew in an important way, with increasing industrialization first, and without structural change later. The result is that no clear reduction in inequality levels can be found. Notwithstanding that, the income level increased significantly during the whole period. The case of Brazil is somewhat different: inequality reduction seems to have taken place during the populist period up to the mid-1960s. However, this reduction was not as important as in the Euro-American countries. As the original inequality levels were very high, they remained relatively very high in the early 1960s. Even worse, the Brazilian industrialization model changed direction after the State coup of 1964. State-led industrialization remained at the agenda, but the social component disappeared, and income distribution started to deteriorate again. The Peruvian case is different. Industrialization took place during the 1950s and 1970s, within a context of export-led growth. Inequality rose significantly during the WWII years and after. It diminished when the terms of trade fell in the 1950s, mainly because of the

reduction of top incomes. Inequality remained very high throughout the process of industrialization.

Inequality can be also regarded from the point of view of human development and a set of different social indicators, that reflect the kind of social state that prevailed in every country. It was shown that the Euro-American countries had stratified universalistic social states, while Brazil and México had dual ones. In almost every variable, the dual ones provided less benefits to their populations, which was reflected in much higher inequality in human development. The case of Peru is extreme, as the transition to a dual social state, that had taken place during the 1930s and early 1940s, was reverted to an exclusionary social state since the late 1940s. Nevertheless, the reduction of inequality in human development was noticeable in all the countries studied, especially in Chile.

In short, it is difficult to reduce the Latin American experience of industrialization and income distribution to a single path: viewed up close, nobody is normal.

The main focus of the analysis and the explanation for why Latin America remained relatively unequal and internationally backward, must be the continent's difficulty to compete internationally, diversifying the structure of exports, which is tightly interwoven with long-term features of the social and political structures, and their impact on innovation and distribution.

These relations are steadily recreated, but they are deeply rooted in history. Disregard the importance of international inequality to explain the difficulties in competing at the international markets is as important a limitation of the analysis, as disregard the importance of unequal domestic structures deeply rooted in history. The impact of these factors, have been shown, impacted differently in the different countries studied, as different were their performances.

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