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***GROWTH, INEQUALITY, AND POVERTY IN LATIN AMERICA:  
HISTORICAL EVIDENCE, CONTROLLED CONJECTURES\****

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**Abstract**

How have growth and inequality affected poverty reduction in Latin America over the long run? On the basis of the available evidence on growth and inequality tentative answers and conjectures are proposed about the long run evolution of poverty in Latin America. Modern Latin America experienced sustained growth since mid nineteenth century only brought to a halt during the 1980s. Inequality, in turn, rose steadily until a high plateau in which it has stabilized over the last four decades of the twentieth century. A calibration exercise on the basis of López and Servén (2005) recent empirical research suggests that absolute poverty has experienced a long-run decline in Latin America since the late nineteenth century, interrupted in the 1890s and the 1930s, and only reversed in the 1980s. Growth emerges as the main element underlying the reduction in absolute poverty, and almost exclusively in the second half of the twentieth century.

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**Keywords:** Growth, inequality, poverty, Latin America

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## ***Introduction***

How much has Latin America grown since its colonial independence? Has her gap with advanced countries widened steadily over time? When did she fall behind? How has inequality evolved historically? Is today's high inequality a permanent feature of modern Latin America? How have growth and inequality affected poverty reduction in the long run?

All these are pressing questions for economists, social scientists, and historians interested in Latin America. To provide a distinctive and definitive answer to each of them is beyond the individual effort. In this paper I will just present an overview of how much can be ascertained and what tentative answers can be given in the current state of research. From the growing literature on pro-poor growth some findings are especially relevant for my task. Poverty reduction depends both on growth of average incomes and on how income is distributed and the extent it does is closely linked to the sensitivity of poverty to both of them (the so called growth elasticity and inequality elasticity of poverty). We also know that the initial levels of development and inequality condition the impact on poverty of growth and improvements on income distribution. I will, hence, divide the exposition into three sections, dedicated to examine long-run trends in growth and inequality, and, on the basis of the first two sections' findings and the empirical current research, to calibrate poverty reduction over the long run in modern Latin America.

### **Long-run growth**

Unfortunately, research in quantitative economic history of Latin America has still a long way to go and we lack complete sets of homogenously constructed GDP estimates that would allow space and time international comparisons. Independent recent attempts to build GDP series for Argentina, Chile, Colombia, and Uruguay only mitigate the problem of assessing quantitatively the performance of Latin America over time<sup>1</sup>.

This lack of hard empirical evidence has not prevented ambitious interpretations of Latin American long-run economic performance to spread. A view that stresses a long run relative decline since independence has been favored in the literature (see, for example, Victor Bulmer-Thomas (1994: 410)). It is also widely accepted that the origins

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<sup>1</sup> Cf. Cortés Conde (1994, 1997) and Della Paolera et al. (2003) for Argentina; GRECO (2000) for Colombia; Díaz et al. (1998) for Chile; and Bértola (1998) for Uruguay. See Appendix A for the GDP series used here.

of modern Latin American retardation are located in the nineteenth century (John Coatsworth, 1993, and Stephen Haber, 1997). Coatsworth (1998) underlines, in turn, that Latin America fell behind between 1700 and 1900, as the gap to the US remained unaltered over the twentieth century.

When did Latin America fall behind has important repercussions for the ongoing debate in which *ad hoc* interpretations are provided for assumed periods of decline. For example, the relevance of the interpretation that puts the burden of the explanation in the colonial legacy is closely dependent on the fact that Latin American retardation had taken place in the early nineteenth century. If this is not the case, the strength of the argument weakens dramatically. In the following paragraphs a quantitative and comparative assessment of Latin America's performance is carried out in an attempt to cast some light on the hot issue of when Latin America lagged behind.

A word of caution is required, however, before the quantitative results are discussed. Dissatisfaction with international comparisons carried out on the basis of trading exchange rate-converted GDP per head has led way to purchasing power parity (PPP) adjusted GDP estimates. Unfortunately, the construction of PPP converters involves high costs in terms of time and resources. An indirect method to derive historical estimates of real income levels for a large sample of countries, popularized by Angus Maddison (1995, 2001, 2003), is the backward projection of the PPP-adjusted GDP per capita for a recent (usually the latest) benchmark with volume indices derived from national accounts data. This short-cut has the presentation advantage of providing international growth rates identical, by construction, to those calculated from national accounts. A distant PPP benchmark introduces, nonetheless, distortions in inter-temporal comparisons since its validity depends on how stable the basket of goods and services used to construct the original PPP converters remains over time. Long term growth alters the composition of output and consumption and, hence, relative prices, rendering international comparisons of per capita income based upon remote PPPs highly questionable (Prados de la Escosura, 2000).

Unfortunately, in order to facilitate comparisons over space and time the dearth of data has forced me to link volume estimates computed at national relative prices to benchmark estimates for the year 1980 expressed in 1980 Geary-Khamis dollars available for most Latin American countries from the UN's International Comparisons Project (ICP IV).

Why to provide new, though still defective GDP series for Latin America when both Maddison (1995, 2003) and Astorga et al. (1998, 2003a) have presented their own estimates? There two main reasons, the first one relates to the chosen benchmark, 1980 represents a more sound choice than those for 1990 and 1970 preferred by Maddison and Astorga et al., respectively. Neither for 1990 nor 1970 a systematic construction of purchasing power parity exchange rates (PPP) have been constructed. Latin America was excluded from the United Nations International Comparisons Project (ICP) Phase V that resulted in the construction of multilateral PPPs for 56 countries. Maddison (1995, 2003) estimated GDP levels for Latin American countries in 1990, first by projecting 1980 per capita GDP levels expressed in 1980 international dollars (that resulted from ICP's most complete sample of LAC countries until the most recent one for 1996) with volume indices of product per head taken from each country's national accounts. Then, he reflatd the GDP levels for 1990 (expressed in 1980 Geary-Khamis dollars) with the U.S. implicit GDP deflator in order to obtain output levels in 1990 international dollars. As regards Astorga et al. (1998, 2004a, 2004b) 1970 benchmark, expressed in international dollars, originally published by CEPAL [the Spanish acronym of ECLA] (1978), were derived from nominal GDP levels provided by national accounts and PPP exchange rates obtained by projecting directly computed PPPs for 1960 with each Latin American country's inflation differential with respect to the USA (CEPAL, 1978: 7-8). The 1960 benchmark provides bilateral PPPs (Fisher PPPs is Astorga et al. choice) directly computed by the Economic Commission for Latin America [ECLA] for 1960 (Braithwaite, 1968; ECLA, 1968)<sup>2</sup>. Among the two directly computed benchmarks available (1960 and 1980) I chose the latter for this paper, as it provides multilateral PPPs and its country coverage includes most OECD members<sup>3</sup>. Alternatively, Geary-Khamis PPPs derived by the UN's International Comparisons Project [ICP] for 1996 could have been used but the 1980 benchmark provides a less remote year for the time span considered and it is, hence, preferable<sup>4</sup>. The second reason why my estimates differ from the previous ones by Maddison and Astorga et al. is that I have widened the country coverage including the latest national GDP estimates available (Appendix A).

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<sup>2</sup> The commodity basket included 261 consumption goods and 113 investment goods for capital cities in nineteen Latin American countries and the US (Houston and Los Angeles). Prices were collected in 1960/62. Quantity expenditure weights for a Latin American average and the US in 1960 were used (ECLA, 1968; Braithwaite, 1968).

<sup>3</sup> Nonetheless, I have replicated the whole exercise presented here at 1960 international prices with no major discrepancies in the results. In another paper (Prados de la Escosura, 2004b) I rely on the 1960 benchmark expressed at US relative prices.

<sup>4</sup> Hofman (2000, 2001) also relies on 1980 international dollars for Latin America.

Graph 1 and Table 1 present population-weighted measures of real GDP per head in Latin America over one and a half centuries. Some main features of historical performance in Latin America can be pointed. In the first place, the origins of modern economic growth, as defined by a sustained increase in output per person, can be traced back to, at least, mid-nineteenth century, as a sustained improvement in GDP per capita is already observable since the 1860s. Latin America appears to have experienced a sustained and gradual growth over more than a century only broken during the 1890s, the Great Depression and, especially, the early 1980s crisis. In Table 1 growth rates are presented for different groups of Latin American countries, with the lengthier the coverage the lower the number of countries comprised. Fortunately, though, the picture they offer of Latin America's performance seems quite robust. After a slow start in the mid-nineteenth century, Latin America appears to grow significantly during the eighteen seventies and eighties and, after the slow down of the 1890s, to accelerate up to World War I. A comparison with the group of advanced countries included under the label *OECD* shows that Latin America grew faster in the periods 1870-90 (LA6) and, especially, in the 1900-1913 (LA6 and LA10). Latin America's output per head slowed down its pace because of World War I and reached a halt in the years of the Great Depression, but its comparative performance was not dissimilar from that of *OECD* countries. In sum, during the first phase of sustained growth in per capita income, 1870-1929, Latin America does not appear to have fallen behind, but to keep pace with the advanced country club but, like everybody else, grew slower than the U.S. After the Depression, Latin America enjoyed its fastest phase of growth that lasted more than four decades, at a pace closer to that of *OECD*, in which its better performance in the 1970s made somehow for a slower growth in the so called 'Golden Age' (1950-73). The 1980s represent a major break in the long-run performance of Latin America that fell short of being offset by the sluggish growth of the 1990s. Thus, while the growth of the early phase, 1860s-1929, was superseded by the performance of the 1930s-1980, the post-1980 era offers a phase of slowing down.

The comparison with Spain, a country that shares with Latin America culture and institutions, is illuminating. Spain exhibits a pace of growth similar to Latin America's over 1870-1929 and after the 1930s crisis (magnified by the Civil War). Spain, however, grew faster in the 1950s and experienced super-growth in the 1960s

and early 1970s<sup>5</sup>. Moreover, in spite of the nearly stagnation in the decade of ‘transition to democracy’ (1975-85), Spain’s growth has been above *OECD* average during the last two decades of the twentieth century.

If a neo-classical growth approach is chosen, a different view of Latin American performance results. As Latin America started from lower levels of GDP per head and, subsequently, poorer endowment of human and physical capital, a faster growth rate should, *ceteris paribus*, be expected. Hence, her performance would appear disappointing, especially in the second half of the twentieth century when, in an increasingly globalized world, access to the latest technological vintage depended upon a country’s social capability. The case of Spain and, more recently, of South East Asian nations support this interpretation.

Decomposing per capita GDP growth using identity (I), provides a more accurate explanation of Latin American slow down. If low case represents annual rates of variation, per capita income growth results from adding the rates of variation of labor productivity (output per economically active population [EAP], of the activity rate (EAP per population ages 15 to 64, or potentially active population [PAP]), and that of the PAP in total population.

$$y_{pc} = y/eap + eap/pap + pap/population \quad (I)$$

Labor productivity that, in the nineteen fifties and sixties, had overcome per capita GDP growth making for a declining activity rate and for a higher dependency rate (population below 15 and above 65 over PAP), lagged behind since the 1970s (Table 1b). In the 1970s and, again, in the 1990s the increase in the activity rate, related to the reduction of unemployment and, especially in the nineties, to the incorporation of women to the labor force (Astorga et al., 2003: 35). Actually, with hardly any labor productivity growth, per capita income continued rising on the basis of an increase in the PAP/population ratio (as the demographic transition reached an end) plus the rise in the activity rate. A further decomposition of labor productivity into physical and human capital per worker and total factor productivity (TFP) is necessary to understand the slowing down of workers’ efficiency. Astorga et al. (2003: 34) suggest, after 1980, an average decline in TFP growth together with a fall in capital deepening for a six country sample (LA4 plus Argentina and Colombia). Hofman (2001) has a more benign view of

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<sup>5</sup> In Spain, the year 1938 represents a trough in economic performance.

TFP growth and points that the decline in labor productivity reflects a ‘strong increase’ in labor inputs<sup>6</sup>.

So far, the focus of attention has been on Latin America as a whole but the region conceals a heterogeneous group of countries that exhibit substantial discrepancies in their factor endowments and long-run performance. The fact that most economic historians only address their research to a country or just to a one of its regions supports the case. Latin America as a whole is, however, what scholars see from the outside and, therefore, remains a valid concept once allowance is made for the wide dispersion in terms of performance and policies. Inequality between Latin American countries increase during the first époque of globalization (1870-1913) as countries reacted very differently depending on their exposition to international commodity and factor movements (Prados de la Escosura, 2004). De-globalization in the Interwar years witnessed a reduction in across-country inequality. Between the early forties and 1970, across-countries inequality rose and, then, collapsed to mid-nineteenth century levels. Such a process of convergence within Latin America is parallel to the divergence with respect to the advanced countries as will be discussed below.

Per capita real GDP levels for major Latin American countries at roughly decadal benchmarks are presented since 1850 in Graph 2, depending on the availability of historical estimates. The high variance of growth rates of GDP per capita in Latin America (Table 2) is worth highlighting. Argentina, Chile and Mexico income per head grew above Latin America’s average between 1870 and 1913, while Brazil, Colombia, Peru, and Venezuela did it over 1913-1938. On the whole, during the early phase of modern economic growth (1870-1929) Colombia, Peru, Venezuela and, to lesser extent, Argentina grew above the region’s average. In the second phase of sustained expansion (1938-80), Mexico and especially Brazil emerge above the average, while Chile stands alone above it in the last two decades of the twentieth century. As countries starting from lower income levels have grown faster than average over the long run, a pattern of convergence among Latin American nations has been building up over time.

When we look at the components of per capita GDP growth, a systematic pattern emerges across countries (Table 3). Labor productivity growth fell behind GDP per head growth in the last two decades of the twentieth century, but was offset by the rise in the activity rate and by the demographic gift of an increasing share of potentially

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<sup>6</sup> Also Fajnzylber and Lederman (2000) and Hofman (2000) found a negative TFP growth in the 1980s.

active population. It is worth mentioning that the demographic gift takes place since 1970, in common with U.N. labeled 'less developed countries' (Lee, 2003) and was not offset by a decline in the rate of activity resulting from higher unemployment (except for Brazil in the 1990s and Mexico in the 1980s). Per capita income growth has been sustained, in some cases, or has not fallen more sharply, in others, largely thanks to the demographic bonus. Finally the somehow inverse evolution between the rate of activity and labor productivity might suggest a falling capital-labor ratio due to fast growing employment.

The comparison between Latin America and other regions or countries allow us to place Latin America's achievements into an international perspective. But, which is the adequate yardstick to assess Latin America's success or failure? Usually Latin America is examined in the U.S. mirror and usual interpretations of early failure and moderate success in the twentieth century derive that way. However, even western European economies fell behind relative to the U.S. over the nineteenth century, while the fact that Latin America's relative position to the U.S. remained mostly unaltered during the twentieth century seems at odds with the catching up experience in large areas of the Periphery (Southern Europe, Southeast Asia), in which the gap with the U.S. was significantly reduced after 1950, whereas Latin America only grew faster than the US in the 1970s. The US represents, thus, a questionable yardstick. I propose instead to use a more comprehensive yardstick, the group of advanced countries from the Old and New World that are today part of the OECD, [hereafter, *OECD* for short]. This country sample also includes countries that belonged to the European Periphery but are part of the Core today, such as Italy, Ireland, or Spain. Actually, Spain has been singled out in the comparisons since she shares institutions with Latin America while she offers a different experience of economic development.

Graph 3 presents the evolution of population-weighted averages of per capita incomes in Latin America relative to the OECD average<sup>7</sup>. The relative position of Latin America in terms of OECD GDP per head presents a wide inverted U-shape for all country samples, except for LA4. In the early phase of modern economic growth (1870-1929) Latin America maintained a stable relative position around 50 percent. Later, in the phase of accelerating expansion, 1938-1980, Latin America experienced a paradox of growth and retardation, falling by almost 20 percent. Lastly, the faltering

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<sup>7</sup> The number of countries included in each sample figures after the region's name, that is, LA6 means that six countries are included in this Latin American (LA) sample.

performance of the last two decades of the twentieth century took Latin America to half its relative position in 1929. When Latin America is compared with Spain, instead, (Graph 3b), together with a relative improvement during the central years of the twentieth century, resulting from Spain's Civil War and autarkic aftermath, a sustained decline is noticeable during its last three decades. It appears, then, that during the period considered, that spans over two phases of globalization and one of de-globalization, Latin America does not seem to have fallen behind until the late twentieth century. Such a finding is in stark contradiction with conventional assessments that locate Latin American retardation in the nineteenth century.

Table 4 decomposes Latin America's position relative to *OECD* and to Spain in terms of GDP per head's components, while Table 5 replicates the exercise for major individual countries. Lack of country coverage prevent us from extending the exercise for Latin America as a whole before 1950 (Panel A), so a reduced exercise decomposing GDP per head into GDP per potentially active population and the share of population ages 15 to 64 is provided (Panel B). It can be noticed that labor productivity systematically reaches higher relative levels than GDP per head as a consequence of a lower population in working age, and, when the comparison is carried out with *OECD*, also of a lower activity rate (a feature related to a lower female participation in the labor force).

High dependency rates in Latin America (Graph 5), resulting from a delayed demographic transition help explain lower levels of GDP per person and, hence, higher poverty in Latin America. The persistence of high dependency rates in Latin America hint to the lack of incentives to reduce fertility provided by the institutional framework and to the weak demand of human capital that helped to bring about the demographic transition in OECD countries (Galor, 2004), and deserves more careful research.

To sum up, modern Latin America experienced sustained growth since mid nineteenth century only brought to a halt during the 1980s. Paradoxically, as in other cases within the Periphery, growth was accompanied by backwardness relative to advanced countries, in particular, during the second half of the twentieth century, and more especially since 1980. What are the implications of such findings for the ongoing debate on Latin America's retardation? Contrary to a widely held view, Latin America's retardation, vis-à-vis OECD countries, appears to be a late twentieth century

phenomenon<sup>8</sup>. Moreover, the decline that probably took place in the decades after independence seems hardly comparable to the dramatic fall in Latin America's position relative to the OECD in the late twentieth century. It seems plausible that in the half century after independence Latin America grew at a slower pace than during the early phase of globalization (1870-1913) but it can be claimed that retardation took place in only when Latin America is compared to a small group of western countries. Thus, the empirical findings presented here seriously challenge conventional assessments that locate Latin American retardation in the nineteenth century and link it to geography, initial inequality of wealth and power, colonial heritage, and post-independence political instability and turmoil. They all certainly hindered long-run growth and a counterfactual scenario with law and order, lower inequality, and British institutions would have cast a higher growth rate in Latin America. However, this is not the issue at stake here. Latin America fell behind dramatically in the late twentieth century and, particularly, since 1980. Such a result demands an explanation. Was it because of inward-looking and interventionist policies? Was it because of poorly defined and enforced property rights? Astorga et al. (2003) claimed that it is misleading to associate import-industrialization strategies to faltering performance as it was during the decades in which such policies were implemented (1937-77) that growth intensified and welfare levels improved; conversely the neo-liberal policies, including privatizations, correspond to the post-1978 phase of economic stagnation and relative decline. Astorga et al. (2003) views remind us that simplistic explanations of Latin American backwardness, written with the exclusive help of theory, are doomed to failure and set the agenda for further research. I will not attempt here, therefore, an easy answer but would like to recall that the period of fastest growth in Latin America, that from World War II till 1980, is also the one in which Latin America fell behind OECD countries, a fate not shared by other regions of the Periphery, such as south-western Europe and East Asia, which were catching up to the Core. Moreover, in the post-1980 era, neo-liberal policies were not always accompanied by deep institutional reforms that would have drastically changed the set of incentives received by economic agents (Taylor, 1998). Government credibility and institutional quality and stability would have help to promote growth. Trade volatility (both in volumes and relative prices) and interest rate shocks, it has been argued, were also major impediments to sustained economic growth and catching up (Astorga et al., 2005).

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<sup>8</sup> Of course, only the post-1850 era is analyzed here but similar results appear when the scope is widened both in time and regional coverage. Cf. Prados de la Escosura (2004b).

## **Long-run Inequality**

Latin America is today the world region in which inequality is highest, with an average Gini coefficient above 50 during the last four decades of the twentieth century (Deininger and Squire, 1996, 1998). A stable income distribution since the post-war period has worsened after 1980 (Altimir, 1987; Morley, 2000). Furthermore, no significant improvement in the relationship between income distribution and economic growth has taken place during the last decade (Londoño and Székely, 1997) and inequality remained high despite episodes of sustained growth (ECLAC, 2000).

Does such an assessment apply to modern Latin American history?

Unfortunately, no quantitative assessment of long-run inequality has been carried out for Latin America, but the perception of unrelenting inequality deeply rooted in the past, is widespread among social scientists and historians. A good example is provided by Bourguignon and Morrisson (2002) investigation of the historical trends in world income inequality. Lack of empirical evidence and conventional wisdom led them to assume that no changes in income distribution had taken place in Latin America from independence to the mid-twentieth century. Only the path-breaking work by Bértola and his associates (2005) for Uruguay has recently provided crude estimates of income distribution and Gini coefficients that go back to the late nineteenth century.

How has the persistence of inequality been explained? Different alternative interpretations have been put forward. Among them, those that emphasize its colonial roots are worth stressing. According to Engerman and Sokoloff (1997), initial inequality of wealth, human capital and political power conditioned institutional design and, hence, performance in Spanish America. Large scale estates, built on pre-conquest social organization and extensive supply of native labor, established the initial levels of inequality. In the post-independence world, elites designed institutions protecting their privileges. In such a path-dependent framework Government policies and institutions restricted competition and offered opportunities to select groups (Sokoloff and Engerman, 2000).

Moreover, Acemoglu, Johnson and Robinson (2002) maintain a different explanation for the uneven fate of former colonies. Where abundant population showed relative affluence, 'extractive institutions' were established, under which most of the population risks expropriation at the hands of the ruling elite or the government (forced labor and tributes, often existing already in the pre-colonial era, over the locals) with

political power concentrated in the hands of an elite, represented the most efficient choice for European colonizers, despite its negative effects on long-term growth. This would be the case of the Iberian empires in the Americas, especially in its economic centers of Peru and New Spain.

After independence, the opening up to the international economy has been associated to a widening of income differences within and across countries. The opening to the international economy was seen by *Dependentists* as a cause of increasing inequality across and within countries, stressing the role of the terms of trade in Latin American retardation as either they improved and shifted resources to primary production (Hans Singer, 1950), or deteriorated and provoked immiserizing growth (Raúl Prebisch, 1950). Neoclassical trade theory predicts, in turn, that trade liberalization after independence would allow Latin American countries to specialize along the lines of comparative advantage. The Heckscher-Ohlin model predicts natural resources, as the abundant factor, to be intensively used and, as a result, an increase of its relative price in terms of labor. This implies, in the Stolper-Samuelson extension of Heckscher-Ohlin model, that in so far land, the abundant factor, is more unequally distributed than labor, inequality would rise within national borders.

No evidence is available on the former for the pre-1870 period with the exception of Argentina, for which Newland and Ortiz (2001) show that the expansion in the pastoral sector resulting from improved terms of trade increased the reward of capital and land, the most intensively used factors, while the farming sector contracted and the returns of its intensive factor, labor, declined, as confirmed by the drop in nominal wages. A redistribution of income in favor of owners of capital and land (*estancieros*) at the expense of workers took place in Argentina between 1820 and 1870. Williamson (1999), in turn, has explored the consequences for inequality of the early phase of globalization (1870-1914). On the basis of the wage-land rental ratio he showed an increase of inequality within-countries in Argentina and Uruguay which confirm empirically Stolper-Samuelson theoretical predictions. As natural resources were the abundant productive factor in Latin America, they were more intensively used in the production of exportable commodities. As a result, returns to land grew relatively to those of labor. Since the ownership of natural resources is more concentrated than that of labor, income distribution tended to be skewed towards landowners and inequality rose over the decades prior to World War I. Presumably, inequality trends reversed in the Interwar when globalization was interrupted as suggested by the steep

decline in the wage-rental ratio stopped in Argentina and Uruguay and its rise in the 1930s (Bértola and Williamson, 2004). Globalization after 1980 has also been associated to rising inequality in Latin America.

Arthur Lewis (1954) labor surplus model, in which the worker fails to share in GDP per capita growth since elastic labor supplies (migration of surplus labor from Southern Europe, especially Spain and Italy) keep wages and living standards stable, also provides the basis of an interpretation of rising inequality in Argentina (Díaz-Alejandro, 1970) and Brazil (Leff, 1982) during the early phase of globalization.

But, can we quantify trends in income inequality in modern Latin America? Lack of historical household surveys prevents so far to carry out studies along the lines sponsored by international institutions for the present. Only after a careful and painstaking research country by country, similar to that carried out by Bértola and his collaborators, Gini coefficients and other inequality measures will be available for Latin America's past. Evidence is, however, available to conduct a series of quantitative exercises that can eventually convey an idea of how inequality has evolved within Latin American societies.

An approach to assessing inequality has been proposed and applied to a wide international sample over 1870-1940 by Jeffrey Williamson (2002): the GDP per worker-unskilled wage ratio. The rationale for this choice is that such a ratio confronts the returns to unskilled labor with the returns to all production factors, that is, GDP. Since unskilled labor is the more evenly distributed factor of production in developing countries, an increase in the ratio suggests that inequality is rising. I have used Williamson's real wages (1995, updated in 1996, and 2002) for Argentina, Brazil, Colombia, Cuba, Mexico, and Uruguay, and, when necessary extended the series up to 1960 (Colombia (GRECO, 2002), Cuba (Zanetti and García, 1972), and Mexico (INEGI, 1995), together with Braun et al. (1998) real wage series for Chile. With real GDP per worker series I computed the GDP per worker-real wage ratio, expressed with 1913=1. In order to smooth the results and present long-run trends I obtained eleven-year centered moving averages for the inequality index. In Graph 6 the results for the Argentina, Chile, Colombia, and Uruguay are presented. A sustained rise in the inequality index from the late nineteenth century up to World War I is observed for the Southern Cone (no data available for Colombia) during the early phase of globalization. Conversely, a decline in inequality took place the Interwar years, as globalization was reversed. This view confirms the Stolper-Samuelson interpretation. It should be

observed that inequality appears to be positively correlated with economic growth in the Southern Cone, as suggested by the correspondence between rising inequality and per capita income up to 1913 and the Interwar decline in both indicators (Table 2). The stabilization or decline of inequality during the mid-twentieth century could be related, as Bértola (2005) points, to urbanization and the emerging role of Government. Redistributive policies, as suggest by the rise of income tax share of Government revenues in the thirties and forties (Astorga and Fitzgerald, 1998: 346) are correlated with the decline in the inequality index in Argentina and Chile and its stagnation in Uruguay. The sustained rise in inequality exhibited between the late thirties and fifties in Colombia demands an explanation.

In Graph 6b trends in inequality are offered for Brazil and Mexico, countries less exposed to international competition than those of the Southern Cone, and Cuba. Brazil presents a long-run decline up to 1913, with a flat phase between the late 1860s and 1890s, while Mexico shows a moderate increase in inequality between the 1880s and the Revolution of 1910, and scattered evidence for Cuba suggests a similar pattern. A dramatic increase in inequality took place in the three countries after 1910 and well into the 1920s, followed by stabilization over the 1930s in Brazil and Cuba. A gradual rise in inequality in Brazil contrasts with the inequality reduction in Cuba between the early 1940s and the late 1950s. If the data on Cuba is taken at face value, the 1959 Revolution would have occurred in a context of inequality stability after a sustained fall in a context of stagnated per capita income. The case of Mexico provides some perplexities too. The aftermath of the 1910 Revolution would have been, according to the inequality index, of rising inequality. Then, after a phase of dramatic inequality reduction, a spectacular rise in the inequality would have taken place between the mid-thirties and the mid-fifties, a period of accelerating growth in per capita income due to improving labor productivity and employment creation (Table 3). Does it mean that, in some Latin American countries, there was a tradeoff between growth and inequality?

But, how was the long-run evolution of inequality when the evidence for ‘pre-statistical’ era is spliced with the data from the 1950s onwards? Table 6 and Graphs 7 and 7b provide a heuristic exercise in which available Gini coefficients have been projected backwards with the ‘inequality ratios’ so a conjectural view of long-run inequality trends is obtained (Appendix B). Several features are worth highlighting. Inequality rose steadily until it reached a high plateau in which has stabilized over the last four decades of the twentieth century. Moreover, persistent high inequality seems to

be confirmed at least since the Great Depression. Another relevant feature seems to be the wide variance across Latin American countries in which Gini indices range from 40 to almost 60. Nonetheless, countries' positions in the inequality ranking are not fixed. Southern Cone nations (Argentina and Chile) exhibited the highest inequality levels until the Interwar years when inequality rose of Mexico, Brazil and Colombia, countries that, by 1950, had already achieved the unenviable leading inequality positions of today. It is also worth noticing the inequality decline in Venezuela during the 1950s and the worsening of Chilean income distribution of the 1970s and 1980s. Meanwhile, Uruguay appears to follow, at least until 1960, more European pattern of inequality.

An attempt to provide a regional view is offered in Graph 7b (and at the bottom of Table 6)<sup>9</sup>. A growing inequality trend is noticeable with two phases of inequality expansion, one up to 1929 and, the second, from World War II up to 1960, while the 1890s (associated to the Barings crisis) and the Great Depression years show a fall in inequality. The high plateau reached in the 1960s presents a high stability over the last four decades of the twentieth century that dwarfs the contraction in inequality of the seventies and its rise during the eighties. Finally, the contrast with the case of Spain might be illuminating. Spain and Latin America followed similar patterns until 1913, to depart from each other during the Interwar. The autarchy years (1939-58) reversed the trend and Spain converged to Latin America's inequality level. Since the 1960s Spain has shifted away from the Latin America to come close to the western European pattern of inequality.

Similar inequality trends up to World War I stem, however, from opposite policies in Spain and Latin America as their resource endowment and factor proportions are very different, and they can be interpreted in Stolper-Samuelson terms. While the abundant factor in Latin America is land, in Spain is labor. Thus, when Latin America opened up to international competition, as it happened from its colonial independence, and especially, since mid nineteenth century, up to World War I, the relative position of land improved and, as it was unevenly distributed, inequality tended *ceteris paribus* to increase. Conversely, isolation from commodity and factor markets in late nineteenth century Spain brought with it a rise in inequality as the scarce and unevenly distributed factors (land and capital) improved their position to labor. This framework helps explain

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<sup>9</sup> LatAm4 is used to differentiate it from LA4, and includes Argentina, Brazil, Chile, and Uruguay; LatAm6 adds Colombia and Mexico. Mexico's Gini estimates only starts in 1913 as the backward projection of Gini with the inequality index casts implausible figures.

that inequality increased again in Spain during the autarchy years (1939-58) and declined after the cautious opening up that took place since 1959. Meanwhile, in Latin America, a reduction in inequality could be predicted during the Interwar as its economy closed up and a new surge in inequality during the second wave of globalization (1950-80). Naturally, the impact on income distribution of international trade and factor mobility is not the only force at play. Redistributive forces from an increasing role of government and industrialization also appear to have had an effect on inequality reduction in Latin America during the twentieth century.

### **Long-run trends in poverty**

Has the growth in average incomes contributed to poverty reduction despite the increase in inequality? The old trade-off between growth and poverty has been challenged (Krongkaew and Kakwani, 2003; Kraay, 2004). In this section no attempt is made to measure the extent to which poverty is reduced with any degree of accuracy but to offer some evidence about its evolution and, in a heuristic exercise, to calibrate possible trends of absolute poverty from which hypotheses for further research can be derived.

Low farm productivity, low rural living standards relative to urban, and poor basic education have been pointed in the recent literature on pro-poor growth as elements that prevent the impact of growth on poverty reduction (Klasen, 2004). The vast majority of the poor usually live in rural areas and the factor of production they possess is almost exclusively labor. Improving labor productivity increases rural incomes and helps reducing inequality as well as promoting growth and, thus, may contribute to poverty reduction. Usually, rural-urban migration is accompanied by rising productivity in agriculture, although sometimes the latter is just a response to productivity gains in the urban sector. In any case, migration from the countryside raises the income of those left behind. As a whole, rural-urban migration tends to have a positive impact on poverty reduction.

What the experience of Latin American countries in this regard? As the poor are unevenly distributed and more concentrated in rural areas, structural change and urbanization are also related to poverty reduction and will be, consequently, explored. A sustained decline in the share of agriculture in total employment, that fell below one-fifth of total employment is noticeable in countries such as Argentina, Chile, and Uruguay, in the Southern Cone, and Cuba and Venezuela in the Caribbean during the

second phase of sustained growth (Table 7). Nonetheless, this trend cannot be generalized. Haiti, Guatemala and Bolivia kept half or more of its labor force in the primary sector, while several others, including Mexico and Peru still maintained more than one-third of workers in agriculture by 1990. The labor productivity gap in agriculture tended to close (Table 8) but, again, the correspondence between those countries experiencing a long-run decline in agricultural employment and those in which the productivity gap exhibited a shrinking trend is weak, and only includes Argentina, Uruguay and Venezuela. Countries such as Brazil, Chile, and Cuba reduced the relative size of agricultural employment while keeping a substantial intersectoral productivity gap. Conversely, others, such as Colombia and Central America maintained high proportions of labor in agriculture while the average labor productivity gap was closing (actually, it did completely in Nicaragua). The reliance on cash crops in these countries helps explain why this was the case. The shift from countryside to cities is confirmed by an increasing urbanization (Table 9) that reached beyond four-fifths of the population in the Southern Cone, Brazil, and Venezuela, but remains below half the population in Central America and Haiti.

How to make sense of these results. A possibility is to compute the rural-urban gap in terms of per capita income. I have followed a crude approach here and assumed that incomes in the countryside accrued mostly from agriculture. It is true that those living in rural area also provided for services and light industrial goods but the opposite could also be said of some of those living in cities ('agro-cities', as they continue supplying labor to agricultural tasks at peak season). In any case, if agricultural output is divided by population living in non-urban areas, a lower bound of rural incomes can be obtained. Its ratio to average incomes (per capita GDP) provides a crude indicator of the income gap between countryside and the city.

Again, the results for the evolution of the rural-urban income gap are ambiguous and while in Argentina, Uruguay, and Nicaragua was even reversed while it closed dramatically in Colombia and Peru, it remained rather large in Mexico, Central America, and the Caribbean at the end of the twentieth century (around one-half that for Mexico fell to one-fourth) (Table 10). The overall assessment casts mixed results. The population residing in the countryside shrank throughout the twentieth century and in many instances the rural-urban gap was reduced. Yet, by 1990, a non negligible share of the population, especially in the northern section of Latin America remained in rural

areas living on a substantial lower income than those already in the city. High concentration of population in rural areas tends unequivocally to suggest poverty.

In the growing body of literature on the so called 'pro-poor growth' there is no agreement about how intense income growth of the poor should be relative to average per capita GDP for this growth being labeled 'pro-poor'. Measuring pro-poor growth is highly demanding in terms of empirical evidence, and data on income distribution, at least by quintile, is required.

In this paper the focus is on absolute growth of the poor's incomes (Ravaillon and Chen, 2003) rather than on whether a relatively disproportionate growth in the poor's incomes took place (Kakwani and Pernia, 2000). I will look, then, at the evolution of absolute poverty as defined by a fixed international poverty line. Given the fact that Latin America, although exhibiting persistently high inequality, is not among the poorest regions of the world, I have decided to use a poverty line (PL, hereafter] equivalent to 1985 Geary-Khamis \$ 4 a day, instead of just \$1 or \$2. Adjusted by the US implicit GDP deflator, it represents in 1980 prices \$ 3.1 a day (purchasing power adjusted), that is, \$ 1,130 per person a year, or \$ 4,521 per year for a four member family unit. On average, in Latin America, per capita income remained below the poverty line until World War I and did not double it until the 1960s (Table 11). If we have in mind the results from recent empirical research in developing countries (for example, Bourguignon, 2002; Klasen, 2004; López, 2004; Ravallion, 1997, 2004) such a low level of development probably hampered the impact of growth on poverty reduction (Deiniger and Squire, 1998). In the ongoing debate on pro-poor growth few views are shared. One of them is that the higher the initial level of inequality, the lower the reduction in poverty for a given rate of growth in GDP per head. Hence, the high levels of inequality presented above may have represented a deterrent for a deeper impact of growth on the poor. As Martin Ravallion (2004) has put it, 'poverty responds slowly to growth in high inequality countries' or, in other words, 'high inequality countries will need unusually high growth rates to achieve rapid poverty reduction'.

There are no microeconomic data available on household expenditures to compute historical trends and levels of poverty in Latin America. In these circumstances, Bourguignon and Morrisson (2002) strategy of assuming that income distribution remained unaltered in Latin America from independence to the mid-twentieth century is very appealing. In the case of absolute poverty, with a fixed poverty line and the proportion of population below that line for the present, it would suffice to

know the growth rate of GDP per head in order to compute levels of absolute poverty for the past. In fact, recent research findings point that a large proportion of long-run changes in poverty are accounted for by the growth in average incomes (Kraay, 2004), and, therefore, emphasize the protection of property rights, stable macroeconomic policies, and openness to international trade as means of growth and poverty suppression (Klasen, 2004; OECD, 2004).

Assuming a one-for-one reduction in poverty with per capita GDP growth seems a gross misrepresentation, and some economists have proposed to introduce a poverty elasticity of growth that would be lower the higher the initial level of inequality. In particular, Ravallion (2004) has proposed to associate poverty changes to economic growth using the following expression:

*Rate of poverty reduction = [Constant x (1-Inequality index)<sup>θ</sup>] x Ordinary growth rate*

In which the constant term is negative and the aversion coefficient  $\theta$  is not less than one ( $\theta = 3$  is suggested).

For the historical case of Latin America, I have carried out a calibration exercise of the impact on absolute poverty resulting from the trends described for GDP growth and inequality. To do so, I have drawn on Humberto López and Luis Servén (2005) recent empirical research that uses the largest microdata base so far for a wide sample of developing and developed countries over the last four decades. They follow a parametric approach and find that the observed distribution of income is consistent with the hypothesis of lognormality. Under lognormality, the contribution of growth and inequality to changes in poverty levels only depends on the average incomes ratio to the defined poverty line and the degree of inequality as measured by the Gini coefficient.

$$P_o = \Phi (\log (z /v)/\sigma + \sigma/2),$$

$$\text{Where, } \sigma = \sqrt{2} \Phi^{-1} ((1 + G)/2)$$

Being  $P_o$ , the poverty headcount, that is, the share of population below the poverty line;  $\Phi$ , a cumulative normal distribution;  $v$ , average per capita income;  $z$ , the poverty line;  $\sigma$ , standard deviation of the distribution; and  $G$ , Gini coefficient.

López and Servén (2005) findings confirm that poverty reduction depends on growth of average incomes and on how income is distributed, as well as on the growth and inequality elasticities of poverty. They stress how determinant the initial levels of

development and inequality are for the impact of growth and income distribution changes on poverty.

Table 12 and Graphs 8 and 8b summarize the results of the conjectural exercise. A word of warning is necessary. The measurement error of the poverty levels is possibly high before the late twentieth century as they rely on Gini coefficients obtained as a backwards extrapolation of properly computed Gini indices with the inequality indices discussed above. Nonetheless, poverty trends are much better captured as the GDP per worker/unskilled wage ratio seems to grasp inequality tendencies rather well. Moreover, the other element to be taken into consideration, the GDP per head/Poverty Line ratio, is much more accurately estimated and, finally, the López and Servén (2005) model employed in the calibration is, as far I know, one of the more rigorous quantitative assessments of the complex relationship between growth, inequality, and poverty.

The main finding of the calibration exercise is, perhaps, that absolute poverty has experienced a long-run decline in Latin America since the late nineteenth century, only arrested in the 1890s and the 1930s, and reversed in the 1980s (Graph 8b). In fact, the same two phases observed for Latin America's growth can be observed for the evolution of poverty. The first one, between 1870 and 1929, interrupted during the 1890s (Baring crisis years) and accelerated in the years from World War I to the Great Depression, and a second, of steadily acceleration in poverty decline between World War II and 1980. Once again, the 1980s stand alone as an exceptional decade in which poverty increased across the board. As regards the absolute number of poor, it grew over time as population expanded in response to high fertility rates and only in the 1970s, the number of poor did actually fall, only to rise again in the 1980s. For a 18-country sample (all Latin America but Cuba and Haiti) the number of poor went from 93.8 million in 1980 to 127.4 million in 1990, when an absolute poverty line of 1985 Geary-Khamis \$ 4 a day is defined.

The high coincidence between phases of growth and poverty reduction makes sense as long-run inequality appears to rise up to the high plateau in which has relatively stabilized today. It could be argued, along Kakwani and Pernia (2000 or 2002) or Klasen (2004) lines that, as inequality seems to have remained relatively stable across Latin American countries in the second half of the twentieth century, economic growth resulted in proportional increases in the incomes of the poor, not in absolute terms (as Ravallion has reminded us) and, hence, pro-poor growth *stricto sensu* never occurred.

Here, however, I adopt a less strict yardstick for the measurement of poverty and a reduction in the share of population below the poverty line is taken as a reduction in absolute poverty.

Could it be said, then, that long-run poverty reduction in Latin America was led exclusively by the growth in average incomes?. A glance at the figures in Tables 2, 6, and 12 indicates that, when we descend at country level, this regularity is not confirmed. True that growth is the only force behind poverty reduction during 1870-90 in Argentina and Chile, but this is not the case at the episode of substantial poverty contraction, 1913-29, in which the fall in inequality played a significant role while per capita GDP growth decelerated, as the national experiences of Argentina, Chile, and Uruguay confirm. Growth, however, was the single force behind it in Brazil and almost exclusively in the case of Colombia during the same period. A combination of inequality contraction and growth lies behind the fall in poverty levels in Argentina between the late thirties and the early fifties, in Venezuela in the fifties and Peru in the sixties. Public redistributive policies (progressive taxes, transfers and other government spending) seem to have mattered for poverty reduction (Astorga and Fitzgerald, 1998).

Nonetheless, in the second half of the twentieth century, growth emerges as the main and almost exclusive element underlying the reduction in absolute poverty. Examples are provided by Argentina and Brazil in the 1960s. This fact explains, perhaps, that absolute poverty levels remain as high in 1990. Growth itself apparently did not suffice to cut down poverty as sharply as was the case in western Europe. High persistent inequality prevented that intense growth during the 1950-80 had a deeper impact on poverty as the cases of Brazil and Colombia exemplify with still one-third of their population below the poverty line. Despite sustained growth in the long-run absolute poverty remained high in Latin America at the end of the twentieth century (above one-fourth in 1980, and nearly one-third in 1990). Moreover, the variance across nations has widened (the unweighted coefficient of variation for a 15-country sample rose from 0.37 in 1950 to 1.08 in 1990). In 1980, for example, Brazil, Colombia, and Chile had a poverty headcount around one third of their population, while Venezuela and Uruguay were below two digits and Mexico and Argentina slightly above. A look at small countries reveals that, for instance, in Central America, absolute poverty affected -if Costa Rica is excluded- half its population in 1980, and reached two-thirds in 1990. Andean countries (Bolivia, Ecuador, and Peru) also exhibited spectacular poverty levels

in 1990. Actually, if Argentina, Uruguay, Venezuela, and Mexico are excluded, poverty headcount in Latin America reaches one half of its population.

The case of Spain presents, in turn, analogies and differences with Latin America. Spain shadowed the evolution of Latin American poverty until the 1960s, when she initiated a fast convergence towards western European patterns (Graph 8b). The influence of growth seems to have prevailed over inequality changes both in Latin America and Spain. In Spain, this was the case in the 1920 and in the 1959-74 years. Nonetheless, during the 'democratic transition' (1976-85) inequality fell and in spite of faltering growth absolute poverty declined. A major difference is, however, that inequality levels in Spain, as measured by the Gini coefficient, have tended to remain in the lower bound of Latin America's Gini and, therefore, the growth of per capita income had a higher payoff in terms of poverty suppression in Spain than in Latin America.

### **Concluding Remarks**

This paper has addressed recurrent questions by social scientists and historians. How much did Latin America grow since independence and how did she perform relative to advanced nations? Is inequality a long-run curse? How these two forces interact and affect poverty? Unfortunately only tentative conclusions that just represent hypotheses for further research can be offered. Among them, the following can be highlighted.

Modern economic growth, defined along Kuznetsian lines as a sustained increase in output per person, can be traced back to mid-nineteenth century from where Latin America has experienced a moderate but sustained growth. Two phases, 1870-1929 and 1938-1980 can be distinguished. In the first one, Latin America kept pace with the advanced nations' club, OECD in present day jargon, but during the second experienced the paradox of achieving her fastest growth while falling behind. The 1980s, in turn, opened an unenviable situation of faltering growth and retardation that lasted until the end of the twentieth century.

A long-run rise in inequality seems another stylized feature of modern Latin America that reached a stable plateau in the late twentieth century. Persistent high inequality is, thus, confirmed by historical evidence with Gini indices ranging from 40 to almost 60.

The high variance of growth rates of GDP per capita and inequality in Latin America is also worth highlighting. Moreover, countries' positions have not remained unaltered.

Absolute poverty experienced a long-run decline in Latin America since the late nineteenth century, its evolution shadowing that of per capita income growth. Long-run poverty reduction in Latin America was led but not exclusively conditioned by the growth in average incomes, especially in the second half of the twentieth century. The contrast with the case of Spain is revealing of the fact that, with a lower degree of initial inequality, Latin America's economic growth would have had a larger payoff in terms of poverty reduction.

## **Appendix A**

### **Sources for GDP per Capita and per Worker Volume Indices**

GDP volume or quantity indices and population for OECD countries come from the national sources stated in Prados de la Escosura (2004) and Maddison (2003). Data for twentieth century Latin American GDP volumes and total population and economically active population comes, unless stated below, from Astorga and Fitzgerald (1998), Astorga, Bergés, and FitzGerald (2004a) OxLAD database, and Mitchell (1993).

**Argentina**, Della Paolera, Taylor, and Bózoli (2003), GDP, 1884-1990, spliced with Cortés Conde (1994) for 1875-84. I assumed the level for 1870 was identical to that of 1875.

**Brazil, GDP**, Goldsmith (1986), 1850-1980.

**Chile**, Díaz, Lüders and Wagner (1998) and Braun, Braun, Briones, and Díaz (2000) (1998).

**Colombia**, GRECO (2002), since 1906. I assumed the level for 1900 was identical to that of 1906.

**México**, INEGI (1995), 1850-1990. GDP figures from 1845 to 1896, interpolated from the original benchmark estimates.

**Spain**, Prados de la Escosura (2003).

**Uruguay**, Bértola and Associates (1998), since 1870.

**Venezuela**, Baptista (1997).

**Central America** (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua), I obtained the level for 1913 by assuming a growth for 1913-20 identical to that of 1920-1925, the latter taken from OxLAD.

## **Appendix B**

### **Sources for Gini Indices**

#### **Direct estimates**

**1990**, Székely (2001), except Guatemala from Londoño and Székely (1997).

**1970-80**, Londoño and Székely (1997) for Brazil, Chile, Colombia, and Costa Rica; Altimir estimates reproduced in Hofman (2001), for Argentina and Bolivia (1980); WIDER (2004), for the Dominican Republic (1980); Deininger and Squire (1996), for Bolivia (1970), Ecuador, El Salvador, Guatemala (1970), Honduras (1980), Paraguay (1980), and Uruguay.

**1938-60**, Altimir (1998) estimates reproduced in Astorga and Fitzgerald (1998) and Hofman (2001), except for Costa Rica, El Salvador, Guatemala, and Peru from Deininger and Squire (1996, updated).

#### **Gini backward projections**

Gini coefficients projected backwards with inequality indices constructed as the ratio between unskilled wage indices and GDP per worker with 1913=1. Data for unskilled wage indices comes from Williamson (1995, updated in 1996, and 2002) for Argentina, Brazil, Colombia, Cuba, Mexico, and Uruguay, extended to 1960 with the following series: for Colombia, GRECO (2002), Cuba (Zanetti and García, 1972), and Mexico (INEGI, 1995). Real wage series for Chile come from Braun et al. (1998). GDP per worker figures from Appendix A.

## References

Acemoglu, D., S. Johnson and J. A. Robinson (2002), "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution", *Quarterly Journal of Economics* 117, 4: 1231-94.

Altimir, O. (1987), "Income Distribution Statistics in Latin America and their Reliability", *Review of Income and Wealth* 33, 2,

Altimir, O. (1998), "Income Distribution", Consultancy Paper for R. Thorp, *Progress, Poverty and Exclusion. An Economic History of Latin America in the 20<sup>th</sup> Century*, Washington: Inter-American Development Bank.

Arriaga, E.A. and K. Davis (1969), "The Pattern of Mortality Change in Latin America" *Demography* 6, 3: 223-42.

Astorga, P. and V. Fitzgerald (1998), "Statistical Appendix", in R. Thorp, *Progress, Poverty and Exclusion. An Economic History of Latin America in the 20<sup>th</sup> Century*, Washington: Inter-American Development Bank, pp. 307-65.

Astorga, P., A. R. Bergés and V. Fitzgerald (2003), "Productivity Growth in Latin America during the Twentieth Century", University of Oxford Discussion Papers in Economic and Social History no 52.

Astorga, P., A. R. Bergés and V. Fitzgerald (2004a), *The Oxford Latin American Economic History Database (OxLAD)*, The Latin American Centre at Oxford University, <http://oxlad.geh.ox.ac.uk>.

Astorga, P., A. R. Bergés and V. Fitzgerald (2004b), "The Standard of Living in Latin America During the Twenty Century", University of Oxford Discussion Papers in Economic and Social History no 54.

Astorga, P., A. R. Bergés and V. Fitzgerald (2005), "Endogenous Growth and Exogenous Shocks in Latin America during The XXth Century", University of Oxford (processed).

Baptista, A. (1997), *Bases cuantitativas de la economía venezolana 1830-1995*, Caracas: Fundación Polar.

Baten, J. And U. Fraunzholt (2002), "Did Partial Globalization Increase Inequality? Did Inequality Stimulate Globalization Backlash? The case of the Latin American Periphery, 1950-2000", *CESifo Working Paper No. 683*.

Bértola, L. (2005), "A 50 años de la curva de Kuznets, una reivindicación sustantiva: distribución del ingreso y crecimiento económico en Uruguay y otros países de nuevo asentamiento desde 1870" (processed).

Bértola, L. and Associates (1998), *El PBI de Uruguay 1870-1936 y otras estimaciones*, Montevideo: Universidad de la República.

Bértola, L., L. Calicchio, M. Camou and G. Porcile (1999), “A Southern Cone Real Wages Compared: A Purchasing Power Parity Approach to Convergence and Divergence Trends, 1870-1996”, Universidad de la Republica, Facultad de Ciencias Sociales, Documento de Trabajo #44.

Bértola, L. and J.G. Williamson (2003), “Globalization in Latin America before 1940”, NBER Working Paper 9687.

Bourguignon, F. (2003), “The Growth Elasticity of Poverty Reduction: Explaining Heterogeneity across Countries and Time Periods”, in T. Eichner and S. Turnovsky, eds., *Inequality and Growth: Theory and Policy Implications*, Cambridge, MA: MIT Press

Bourguignon, F. and C. Morrisson (2002), “Inequality among World Citizens”, *American Economic Review* 92, 4: 727-44.

Braun, J., M. Braun, I. Briones, and J. Díaz (1998), “Economía chilena, 1810-1995. Estadísticas Históricas”, Pontificia Universidad Católica de Chile Documento de Trabajo 187.

Braithwaite, S.N. (1968), “Real Income Levels in Latin America”, *Review of Income and Wealth* 14: 113-82.

Bulmer-Thomas, V. (1994), *The Economic History of Latin America since Independence*, Cambridge: Cambridge University Press.

CEPAL (1978), “Series históricas del crecimiento de América Latina”, *Cuadernos Estadísticos de la CEPAL*, Santiago de Chile: CEPAL.

Coatsworth, J. H. (1993), “Notes on the Comparative Economic History of Latin America and the United States”, in W. L. Bernecker and H. W. Tobler, eds. *Development and Underdevelopment in America: Contrasts in Economic Growth in North America and Latin America in Historical Perspective*, New York.

Coatsworth, John H. (1998), “Economic and Institutional Trajectories in Nineteenth-Century Latin America”, in J. H. Coatsworth and A. M. Taylor, eds. *Latin America and the World Economy Since 1800*, Cambridge, MA: Harvard University Press, pp. 23-54.

Cortés Conde, R. (1994) (with M. Harriague), “El PBI argentino, 1875-1935”, Universidad de San Andrés (processed).

Cortés Conde, R. (1997), *La economía argentina en el largo plazo (Siglos XIX y XX)*. Buenos Aires: Editorial Sudamericana-Universidad de San Andrés.

Deininger, K. and P. Olinto (2000), “Asset Distribution, Inequality, and Growth”, World Bank Policy Research Paper 2375. Washington, D.C.

Deininger and Squire (1996), “A New Data Set Measuring Income Inequality”, *The World Bank Economic Review* 10, 3:

Deininger, K. and L. Squire, 1998, “New ways of looking at old issues: inequality and growth”, *Journal of Development Economics* 57, 2: 257–85.

Della Paolera, G., A.M. Taylor, and G. Bózzoli (2003), “Historical Statistics”, in G. Della Paolera and A. M. Taylor, eds., *A New Economic History of Argentina*, New York: Cambridge University Press, pp. 376-85, plus a CD-Rom.

Díaz, J., R. Lüders and G. Wagner (1998), “Economía chilena 1810-1995: evolución cuantitativa del producto total y sectorial”, Santiago: Pontificia Universidad Católica de Chile Documento de Trabajo 186.

Economic Commission for Latin America [ECLA] (1968), “The Measurement of Latin American Real Income in U.S. Dollars”, *Economic Bulletin for Latin America* XII, 2: 107-41.

Economic Commission for Latin America and the Caribbean [ECLAC] (2000), *The Equity Gap. A Second Assessment*, Santiago de Chile.

Engerman, S. L. and K. L. Sokoloff (1997), “Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies”, in S. Haber, ed., *How Latin America Fell Behind. Essays on the Economic Histories of Brazil and Mexico, 1800-1914*, Stanford: Stanford University Press, pp. 260-304.

Engerman, S. L., S. H. Haber, and K. L. Sokoloff (2000), “Inequality, Institutions, and Differential Paths of Growth among New World Economies”, in C. Menard, ed., *Institutions, Contracts, and Organizations*, Edward Elgar: Cheltenham, pp. 108-34.

Fajnzylber, P. and D. Lederman (2000), “Economic Reforms and Total Factor Productivity Growth in Latin America and the Caribbean, 1950-95: An Empirical Note”, *World Bank Working Paper* no. 2114. Washington, D.C.

Galor, O. (2004), “The Demographic Transition and the Emergence of Sustained Economic Growth”, CEPR Discussion Paper # 4714.

GRECO [Grupo de Estudios de Crecimiento Económico] (2002), *El crecimiento económico colombiano en el siglo XX*, Bogotá: Banco de la República-Fondo de Cultura Económica.

Haber, S. H. (1997), “Introduction”, in S. Haber, ed., *How Latin America Fell Behind. Essays on the Economic Histories of Brazil and Mexico, 1800-1914*, Stanford: Stanford University Press.

Hofman, A.A. (2000), *The Economic Development of Latin America in the Twentieth Century*, Cheltenham: Elgar.

Hofman, A.A. (2001), “Long run economic development in Latin America in a comparative perspective: Proximate and ultimate causes”, *ECLAC Macroeconomía del Desarrollo Series* 8.

INEGI (1995), *Estadísticas Históricas de México*, México D.F.: INEGI.

- Kakwani, N. and E. Pernia, (2000), “What is pro-poor growth?”, *Asian Development Review* 18, 1: 1–16.
- Klasen, S. (2004), “In Search of the Holy Grail: How to Achieve Pro-Poor Growth?”, in B. Tungodden, N. Stern, and I. Kolstad, eds., *Toward Pro-Poor Policies. Aid, Institutions, Globalization*, New York: Oxford University Press for the World Bank, pp. 63-93.
- Kraay, A. (2004), “When Is Growth Pro-Poor? Cross-Country Evidence”, IMF Working Paper 04/47.
- Krongkaew, M. and N. Kakwani, (2003), “The growth–equity trade-off in modern economic development: the case of Thailand”, *Journal of Asian Economics* 14: 735–57.
- Lee, R. (2003), “The Demographic Transition: Three Centuries of Fundamental Change”, *Journal of Economic Perspectives* 17, 4: 167-90.
- Londoño, J. L. and M. Székely (1997), “Persistent Poverty and Excess Inequality: Latin America, 1970-1995”, Inter-American Development Bank, Office of the Chief Economist, *Working Paper Series* 357.
- Lopez, J. H. (2004), “Pro-Poor-Pro-Growth: Is there a Trade Off?”, The World Bank, Policy Research Working Paper No. 3378.
- López, J.H. and L.Servén (2005), “A Normal Relationship? Poverty, Growth and Inequality” (processed).
- Lewis, W. A. (1954), “Economic Development with Unlimited Supplies of Labour”, *Manchester School of Economic and Social Studies* 22: 139-91.
- Maddison, A. (1995), *Monitoring the World Economy, 1820-1992*, Paris, OECD
- Maddison, A. (2001), *The World Economy. A Millennial Perspective*, Paris, OECD.
- Maddison, A. (2003), *The World Economy. Historical Statistics*, Paris, OECD
- Morley, S. (2000), *La Distribución del Ingreso en América Latina y el Caribe*, Santiago de Chile: Fondo de Cultura Económica and Comisión Económica para América Latina y el Caribe (CEPAL),.
- Newland, C. and J. Ortiz (2001), “The Economic Consequences of Argentine Independence”, *Cuadernos de Economía* 115: 275-90.
- Prados de la Escosura, L. (2000), “International Comparisons of Real Product, 1820-1990: An Alternative Data Set”, *Explorations in Economic History* 37, 1: 1-41.
- Prados de la Escosura, L. (2004a), “When Did Latin America Fall Behind?. Evidence from Long-run International Inequality”, Universidad Carlos III Working Papers 04-66.

- Prados de la Escosura, L. (2004b), "Colonial Independence and Economic Backwardness in Latin America", Universidad Carlos III Working Papers 04-65.
- Prebisch, R. (1950), *The Economic Development of Latin America and its Principal Problems*, New York.
- Ramos, J.R. (1996), 'Poverty and Inequality in Latin America: A Neostructural Perspective', *Journal of Interamerican Studies and World Affairs* 38: 141-58.
- Ravallion, M. (1997), "Can High Inequality Development Countries Escape Absolute Poverty?", *Economics Letters* 56: 51-57.
- Ravallion, M. (2004), "Pro-Poor Growth: A Primer", The World Bank, Policy Research Working Paper No. 3242.
- Ravallion, M. and Chen, 2003, "Measuring Pro-Poor Growth", *Economics Letters* 78, 1: 93-99.
- Singer, H. W. (1950), "The Distribution of Gains between Investing and Borrowing Countries", *American Economic Review. Papers and Proceedings* 11, 2: 473-85.
- Sokoloff, K. and S. L. Engerman (2000), "Institutions, Factor Endowments, and Paths of Development in the New World", *Journal of Economic Perspectives*, 14, 3: 217-32.
- Stein, S.J. and B.H. Stein (1970), *The Colonial Heritage of Latin America. Essays on Economic Dependence in Perspective*, New York: Oxford University Press.
- Székely, M. (2001), "The 1990s in Latin America: Another Decade of Persistent Inequality, but with Somewhat Lower Poverty", Inter-American Development Bank, Office of the Chief Economist, *Working Paper Series* 454.
- Taylor, A. M. (1998b), "On the Cost of Inward-Looking Development: Price Distortions, Growth and Divergence in Latin America", *Journal of Economic History* 58, 1: 1-19.
- Thorp, R. (1998), *Progress, Poverty and Exclusion. An Economic History of Latin America in the 20<sup>th</sup> Century*, Washington: Inter-American Development Bank
- Williamson, J.G. (1995, updated in 1996), "The Evolution of Global Markets since 1830: Background Evidence and Hypotheses", *Explorations in Economic History* 32: 141-96.
- Williamson, J.G. (1999), "Real Wage Inequality and Globalization in Latin America before 1940", *Revista de Historia Económica* XVII (special issue), 101-42.
- Williamson, J.G. (2002), "Land, Labor, and Globalization in the Third World, 1870–1940", *Journal of Economic History* 62, 1: 55-85.
- Zanetti Lecuona, O. and A. Garcia Alvarez (1972), *United Fruit Co.: Un caso del dominio imperialista en Cuba*, La Habana.

**Table 1. Economic Growth in Latin America and OECD Countries (logarithmic annual rates %)**

	LA20	LA15	LA10	LA6	LA4	OECD15	OECD19	OECD21	Spain	USA
<b>1850-1870</b>					0,2	1,5			0,5	2,2
<b>1870-1890</b>				1,7	1,4	1,4	1,4		1,5	1,6
<b>1890-1900</b>				0,4	0,5	1,5	1,5		0,9	1,8
<b>1900-1913</b>			2,3	2,2	1,8	1,6	1,7		1,0	1,9
<b>1913-1929</b>		1,2	1,2	1,0	0,9	1,3	1,2	1,2	1,7	1,6
<b>1929-1938</b>		0,1	0,2	0,1	0,4	0,0	0,3	0,3	-4,8	-0,5
<b>1938-1950</b>		2,1	2,1	2,3	2,6	3,2	2,6	2,5	1,8	4,7
<b>1950-1960</b>	2,3	2,3	2,3	2,4	3,0	2,7	3,2	3,2	3,6	1,7
<b>1960-1970</b>	2,9	2,9	3,0	3,2	3,2	3,4	4,1	4,1	7,4	2,9
<b>1970-1980</b>	3,3	3,3	3,3	3,4	3,7	2,4	2,6	2,6	3,7	2,1
<b>1980-1990</b>	-0,5	-0,5	-0,4	-0,5	-0,2	2,1	2,3	2,3	2,9	2,1
<b>1990-2000</b>	1,3	1,3	1,3	1,5	1,3	1,9	1,8	1,8	2,4	1,9
<b>1870-1929</b>				1,4	1,2	1,4	1,4		1,3	1,7
<b>1938-1980</b>	2,9	2,6	2,6	2,7	3,0	2,9	3,0	3,0	3,9	2,9
<b>1980-2000</b>	0,4	0,4	0,4	0,5	0,6	2,0	2,0	2,0	2,6	2,0
<b>1870-1980</b>				1,8	1,9	1,9	1,9		1,8	2,0
<b>1870-2000</b>				1,6	1,7	1,9	2,0		1,9	2,0

**LA4** Population-weighted average of Brasil, Chile, México, Venezuela

**LA6** Population-weighted average of LA4 + Argentina y Uruguay

**LA10** Population-weighted average of LA6 + Colombia, Cuba, Ecuador y Perú

**LA15** Population-weighted average of LA10 + Costa Rica, El Salvador, Guatemala, Honduras y Panamá

**LA20** Population-weighted average of Latin American countries

**Table 1b. Per Capita GDP Growth and its Components in Latin America**

	<b>Per Capita GDP</b>	<b>GDP per Worker</b>	<b>EAP/PAP</b>	<b>PAP/Population</b>
<b>1950-1960</b>	2,3	2,8	-0,2	-0,3
<b>1960-1970</b>	2,9	3,6	-0,4	-0,2
<b>1970-1980</b>	3,3	2,2	0,6	0,5
<b>1980-1990</b>	-0,5	-1,0	0,0	0,5
<b>1990-2000</b>	1,3	0,1	0,6	0,6

**Table 2. Economic Growth in Main Latin American Countries (logarithmic annual rates %)**

	Argentina	Brazil	Chile	Colombia	Cuba	Mexico	Peru	Uruguay	Venezuela
<b>1850-1870</b>		0,2	1,7			0,0			-1,2
<b>1870-1890</b>	3,3	0,2	2,0			2,0		0,4	2,6
<b>1890-1900</b>	-0,8	-0,9	1,2			1,5		0,8	-1,5
<b>1900-1913</b>	2,5	2,2	2,3	1,8	3,2	1,9	1,4	3,1	2,6
<b>1913-1929</b>	0,9	1,4	0,9	3,9	-0,7	0,4	3,6	0,9	6,8
<b>1929-1938</b>	-0,8	1,0	-0,8	1,4	0,2	0,4	0,1	0,1	0,5
<b>1938-1950</b>	1,7	1,6	1,3	1,5	0,1	3,5	1,2	1,5	4,3
<b>1950-1960</b>	1,1	3,7	1,5	1,6	0,3	2,3	2,9	0,6	3,4
<b>1960-1970</b>	3,9	3,1	1,9	2,2	-0,4	3,4	2,3	0,8	2,4
<b>1970-1980</b>	2,1	5,8	0,9	2,9	5,5	2,5	1,7	2,1	0,1
<b>1980-1990</b>	-2,4	-0,2	1,2	1,1	0,6	-0,1	-3,3	-0,2	-1,9
<b>1990-2000</b>	2,8	0,8	5,0	0,7	-7,1	1,7	2,3	2,1	-0,1
<b>1870-1929</b>	1,8	0,8	1,6	3,0	1,0	1,5	2,7	1,2	3,0
<b>1938-1980</b>	2,1	3,4	1,4	2,1	1,3	2,9	1,9	1,4	2,6
<b>1980-2000</b>	0,2	0,3	3,1	0,9	-3,3	0,8	-0,5	0,9	-1,0
<b>1870-1980</b>	0,0	1,8	1,3	2,3	1,1	1,9	2,0	1,1	2,7
<b>1870-2000</b>	0,0	1,6	1,6	2,0	0,2	1,8	1,5	1,1	2,1



**Table 3. Per Capita GDP Growth and its Components**

	Per Capita GDP	GDP per Worker	EAP/PAP	PAP/Population
<b>Argentina</b>				
1870-1913	2,1	2,4	-0,5	0,2
1913-1938	0,3	0,6	-0,6	0,3
1938-1950	1,7	0,7	0,8	0,1
1950-1960	1,1	1,6	-0,3	-0,2
1960-1970	3,9	4,0	-0,1	0,0
1970-1980	2,1	2,3	0,1	-0,4
1980-1990	-2,4	-2,2	0,0	-0,2
1990-2000	2,8	2,0	0,4	0,3
<b>Brazil</b>				
1938-1950	1,6	1,4	0,4	-0,3
1950-1960	3,7	3,9	0,0	-0,2
1960-1970	3,1	2,8	0,2	0,2
1970-1980	5,8	4,8	0,7	0,3
1980-1990	-0,2	-1,4	0,4	0,8
1990-2000	0,8	0,3	-0,3	0,8
<b>Chile</b>				
1890-1913	1,8	2,0	-0,2	0,1
1913-1938	0,3	0,4	-0,2	0,0
1938-1950	1,3	1,5	-0,1	-0,1
1950-1960	1,5	2,6	-0,6	-0,5
1960-1970	1,9	2,9	-0,9	-0,1
1970-1980	0,9	-0,1	0,0	1,0
1980-1990	1,2	-0,2	1,0	0,4
1990-2000	5,0	3,9	1,0	0,1
<b>Colombia</b>				
1913-1938	3,0	3,1	0,1	-0,1
1938-1950	1,5	2,1	-0,5	-0,1
1950-1960	1,6	2,6	-0,4	-0,5
1960-1970	2,2	2,3	-0,1	0,0
1970-1980	2,9	1,8	0,1	1,0
1980-1990	1,1	0,1	0,6	0,5
1990-2000	0,7	-0,8	1,1	0,5
<b>Mexico</b>				
1890-1913	1,7	2,2	-0,5	-0,1
1913-1938	0,4	0,9	-0,5	0,0
1938-1950	3,5	2,9	0,8	-0,3
1950-1960	2,3	2,5	0,3	-0,5
1960-1970	3,4	5,4	-1,6	-0,5
1970-1980	2,5	0,4	1,4	0,7
1980-1990	-0,1	0,8	-1,6	0,7
1990-2000	1,7	-1,8	2,7	0,8
<b>Venezuela</b>				
1925-1938	3,9	3,0	0,9	0,0
1938-1950	4,3	4,0	0,6	-0,2
1950-1960	3,4	4,1	-0,1	-0,6
1960-1970	2,4	2,9	-0,5	0,0
1970-1980	0,1	-1,3	0,7	0,7
1980-1990	-1,9	-2,8	0,5	0,4
1990-2000	-0,1	-1,1	0,4	0,6

**Table 4. Decomposition of Latin America's Relative Per Capita GDP**

**Panel A. LA19**

	Per Capita GDP	GDP per Worker	EAP/PAP	PAP/population
<b>OECD21 = 100</b>				
<b>1950</b>	0,43	0,52	0,95	0,87
<b>1960</b>	0,40	0,50	0,92	0,86
<b>1970</b>	0,36	0,47	0,91	0,84
<b>1975</b>	0,38	0,49	0,92	0,85
<b>1980</b>	0,38	0,49	0,93	0,85
<b>1990</b>	0,29	0,37	0,90	0,88
<b>Spain = 100</b>				
<b>1950</b>	1,12	1,17	1,13	0,85
<b>1960</b>	1,00	1,10	1,07	0,84
<b>1970</b>	0,66	0,75	1,01	0,87
<b>1975</b>	0,60	0,67	1,01	0,88
<b>1980</b>	0,63	0,62	1,15	0,89
<b>1990</b>	0,45	0,47	1,07	0,89
<b>2000</b>	0,41	0,43	1,03	0,92

**Panel B. LA6**

	<b>OECD21 = 100</b>			<b>Spain = 100</b>		
	Per Capita GDP	GDP/PAP	PAP/population	Per Capita GDP	GDP/PAP	PAP/population
<b>1913</b>	0,51	0,56	0,90	0,83	0,90	0,92
<b>1925</b>	0,51	0,58	0,88	0,79	0,85	0,93
<b>1929</b>	0,50	0,56	0,88	0,75	0,81	0,93
<b>1938</b>	0,49	0,56	0,86	1,17	1,28	0,91
<b>1950</b>	0,47	0,54	0,88	1,24	1,45	0,86
<b>1960</b>	0,44	0,51	0,87	1,12	1,31	0,85
<b>1970</b>	0,41	0,47	0,85	0,75	0,85	0,88
<b>1975</b>	0,44	0,51	0,86	0,69	0,77	0,90
<b>1980</b>	0,44	0,51	0,85	0,73	0,81	0,90
<b>1990</b>	0,33	0,38	0,89	0,52	0,58	0,90
<b>2000</b>	0,32			0,48	0,51	0,94

LA19: All Latin American countries except Cuba.

**Table 5. Relative GDP per Head and its Components in Major Latin American Countries (OECD19 = 1)**

		Per Capita GDP	GDP per Worker	EAP/PAP	PAP/Population
<b>Argentina</b>					
	<b>1870</b>	0,66	0,59	1,37	0,88
	<b>1880</b>	0,63	0,68	1,18	0,84
	<b>1890</b>	0,97	0,89	1,39	0,79
	<b>1900</b>	0,78	0,84	0,98	0,94
	<b>1913</b>	0,86	0,99	0,91	0,95
	<b>1929</b>	0,81	1,06	0,88	0,95
	<b>1938</b>	0,74	0,91	0,85	0,95
	<b>1950</b>	0,67	0,70	0,95	1,00
	<b>1960</b>	0,54	0,60	0,90	1,01
	<b>1970</b>	0,54	0,59	0,91	1,00
	<b>1980</b>	0,51	0,62	0,89	0,93
	<b>1990</b>	0,32	0,42	0,86	0,90
<b>Brazil</b>					
	<b>1938</b>	0,29	0,38	0,93	0,84
	<b>1950</b>	0,26	0,33	0,94	0,85
	<b>1960</b>	0,28	0,35	0,93	0,85
	<b>1970</b>	0,25	0,31	0,96	0,86
	<b>1980</b>	0,35	0,41	1,00	0,86
	<b>1990</b>	0,27	0,30	1,01	0,91
<b>Chile</b>					
	<b>1900</b>	0,68	0,83	0,88	0,93
	<b>1913</b>	0,74	0,90	0,87	0,95
	<b>1929</b>	0,69	1,02	0,82	0,91
	<b>1938</b>	0,63	0,80	0,89	0,89
	<b>1950</b>	0,55	0,68	0,89	0,91
	<b>1960</b>	0,46	0,63	0,82	0,89
	<b>1970</b>	0,37	0,56	0,76	0,87
	<b>1980</b>	0,32	0,47	0,73	0,93
	<b>1990</b>	0,29	0,38	0,79	0,95
<b>Colombia</b>					
	<b>1900</b>	0,24	0,25	1,04	0,92
	<b>1913</b>	0,25	0,30	0,92	0,91
	<b>1929</b>	0,38	0,50	0,96	0,86
	<b>1938</b>	0,42	0,51	0,99	0,82
	<b>1950</b>	0,37	0,46	0,97	0,84
	<b>1960</b>	0,32	0,43	0,90	0,82
	<b>1970</b>	0,27	0,36	0,90	0,81
	<b>1980</b>	0,27	0,35	0,91	0,86
	<b>1990</b>	0,24	0,30	0,93	0,89
	<b>2000</b>	0,22			

**Table 5. Relative GDP per Head and its Components in Major Latin American Countries (OECD19 = 1)**

		Per Capita GDP	GDP per Worker	EAP/PAP	PAP/Population
<b>Mexico</b>					
	<b>1890</b>	0,72	0,82	0,86	1,02
	<b>1900</b>	0,64	0,78	0,90	0,92
	<b>1913</b>	0,64	0,86	0,82	0,91
	<b>1929</b>	0,57	0,93	0,76	0,89
	<b>1938</b>	0,58	0,88	0,78	0,85
	<b>1950</b>	0,65	0,89	0,87	0,84
	<b>1960</b>	0,60	0,83	0,88	0,83
	<b>1970</b>	0,56	0,95	0,76	0,78
	<b>1980</b>	0,56	0,81	0,85	0,81
	<b>1990</b>	0,44	0,74	0,70	0,85
<b>Peru</b>					
	<b>1938</b>	0,38	0,45	1,05	0,80
	<b>1950</b>	0,33	0,42	0,94	0,82
	<b>1960</b>	0,32	0,43	0,88	0,84
	<b>1970</b>	0,27	0,38	0,85	0,82
	<b>1980</b>	0,25	0,36	0,84	0,81
	<b>1990</b>	0,14	0,20	0,81	0,86
<b>Uruguay</b>					
	<b>1950</b>	0,93	0,98	0,98	0,96
	<b>1960</b>	0,72	0,77	0,93	1,01
	<b>1970</b>	0,52	0,57	0,92	1,00
	<b>1980</b>	0,50	0,58	0,91	0,95
	<b>1990</b>	0,39	0,43	0,97	0,93
<b>Venezuela</b>					
	<b>1929</b>	0,63	1,02	0,76	0,88
	<b>1938</b>	0,64	0,90	0,83	0,85
	<b>1950</b>	0,80	1,04	0,90	0,85
	<b>1960</b>	0,82	1,13	0,88	0,82
	<b>1970</b>	0,70	1,01	0,85	0,81
	<b>1980</b>	0,55	0,73	0,88	0,85
	<b>1990</b>	0,36	0,47	0,89	0,86

**Table 6. Income Distribution in Latin America: Gini Coefficients**

	<b>1850</b>	<b>1860</b>	<b>1870</b>	<b>1880</b>	<b>1890</b>	<b>1900</b>	<b>1913</b>	<b>1929</b>	<b>1938</b>	<b>1950</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>
Argentina			39,1	39,7	43,6	42,0	61,8	49,3	50,0	<b>39,6</b>	<b>41,4</b>	<b>41,2</b>	<b>47,2</b>	<b>47,7</b>
Bolivia												<b>53,0</b>	<b>53,4</b>	<b>54,5</b>
Brazil	46,2	37,2	32,9	33,0	34,4	29,8	29,5	47,2	46,4	55,4	<b>57,0</b>	<b>57,1</b>	<b>57,1</b>	<b>57,3</b>
Chile	36,6	40,7	41,3	47,2	51,9	58,5	65,5	49,2	40,5	41,7	<b>48,2</b>	<b>47,4</b>	<b>53,1</b>	<b>54,7</b>
Colombia							46,8	40,2	<b>45,0</b>	<b>51,0</b>	<b>54,0</b>	<b>57,3</b>	<b>48,8</b>	<b>56,7</b>
Costa Rica										30,7	<b>50,0</b>	<b>44,5</b>	<b>48,5</b>	<b>46,0</b>
Dominican R.										32,4	34,6	<b>45,5</b>	<b>42,1</b>	<b>48,1</b>
Ecuador										57,1	61,0	60,1	54,2	<b>56,0</b>
El Salvador										44,0	<b>42,4</b>	<b>46,5</b>	<b>48,4</b>	<b>50,5</b>
Guatemala										<b>42,3</b>	28,6	<b>30,0</b>	<b>49,7</b>	<b>59,9</b>
Honduras										57,1	66,0	<b>61,8</b>	<b>54,9</b>	<b>57,0</b>
Mexico							27,8	24,3	30,4	<b>55,0</b>	<b>60,6</b>	<b>57,9</b>	<b>50,9</b>	<b>53,1</b>
Nicaragua											68,1	63,2	57,9	<b>56,7</b>
Panama										56,4	<b>50,0</b>	<b>58,4</b>	<b>47,5</b>	<b>56,3</b>
Paraguay													<b>45,1</b>	<b>57,0</b>
Peru										39,2	<b>61,0</b>	<b>48,5</b>	<b>43,0</b>	<b>46,4</b>
Uruguay			29,6	33,1	32,2	38,4	45,9	36,6	34,9	37,9	<b>37,0</b>	<b>42,8</b>	<b>43,6</b>	<b>40,6</b>
Venezuela										<b>61,3</b>	<b>46,2</b>	<b>48,0</b>	<b>44,7</b>	<b>44,0</b>
LatAm4			34,8	35,9	38,0	35,4	40,5	47,5	46,4	50,4	52,7	53,1	54,9	55,2
LatAm6							37,7	41,6	42,8	51,5	54,7	54,8	53,2	54,8
LatAm15										50,6	53,9	53,5	51,9	53,7
LatAm16											54,0	53,6	52,0	53,8
<b>Spain</b>	24.9	28.0	30.2	41.7	40.7	44.0	47.8	39.0	35.1	53.6	44.6	<b>45,7</b>	<b>36,3</b>	<b>34,7</b>

*Note:* Direct estimates, in **bold**; Otherwise, backwards projection of Gini with Inequality Indices

**Table 7. Share of Economically Active Population in Agriculture**

	<b>1900</b>	<b>1913</b>	<b>1929</b>	<b>1938</b>	<b>1950</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>
<b>Argentina</b>	0,39	0,35	0,36	0,35	0,25	0,21	0,16	0,13	0,12
<b>Bolivia</b>					0,56	0,55	0,55	0,53	0,47
<b>Brazil</b>		0,71		0,69	0,62	0,55	0,47	0,37	0,23
<b>Chile</b>	0,37	0,37	0,37	0,36	0,33	0,30	0,24	0,21	0,19
<b>Colombia</b>				0,73	0,59	0,52	0,45	0,40	0,27
<b>Costa Rica</b>					0,57	0,51	0,43	0,35	0,26
<b>Cuba</b>					0,41	0,36	0,30	0,24	0,18
<b>Dominican Republic</b>					0,73	0,64	0,48	0,32	0,25
<b>Ecuador</b>					0,65	0,59	0,52	0,40	0,33
<b>El Salvador</b>					0,65	0,62	0,57	0,44	0,36
<b>Guatemala</b>					0,69	0,66	0,61	0,54	0,52
<b>Haiti</b>					0,86	0,80	0,74	0,71	0,68
<b>Honduras</b>					0,75	0,72	0,67	0,57	0,41
<b>Mexico</b>	0,62	0,68	0,70	0,66	0,66	0,54	0,50	0,36	0,35
<b>Nicaragua</b>					0,70	0,63	0,51	0,40	0,29
<b>Panama</b>					0,56	0,51	0,42	0,29	0,26
<b>Paraguay</b>					0,54	0,54	0,50	0,45	0,39
<b>Peru</b>					0,58	0,52	0,48	0,40	0,36
<b>Uruguay</b>					0,24	0,21	0,19	0,17	0,14
<b>Venezuela</b>			0,59	0,54	0,43	0,33	0,26	0,15	0,12

*Sources:* OxLAD (2004).

**Table 8. Relative Labor Productivity in Agriculture**

	<b>1900</b>	<b>1913</b>	<b>1929</b>	<b>1938</b>	<b>1950</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>
<b>Argentina</b>	0,74	0,70	0,64	0,62	0,68	0,77	0,82	0,85	1,20
<b>Bolivia</b>					0,46	0,44	0,31	0,28	0,32
<b>Brazil</b>		0,32		0,33	0,27	0,24	0,21	0,20	0,34
<b>Chile</b>	0,44	0,42	0,32	0,40	0,34	0,32	0,33	0,35	0,43
<b>Colombia</b>				0,64	0,64	0,63	0,63	0,62	0,91
<b>Costa Rica</b>					0,67	0,58	0,59	0,58	0,84
<b>Cuba</b>					0,51	0,52	0,64	0,52	0,51
<b>Dominican Republic</b>					0,47	0,53	0,54	0,57	0,64
<b>Ecuador</b>					0,64	0,66	0,58	0,53	0,78
<b>El Salvador</b>					0,63	0,58	0,54	0,77	0,86
<b>Guatemala</b>					0,53	0,51	0,49	0,50	0,51
<b>Haiti</b>					0,61	0,62	0,68	0,56	0,58
<b>Honduras</b>					0,60	0,45	0,51	0,53	0,75
<b>Mexico</b>	0,45	0,37	0,28	0,30	0,28	0,30	0,23	0,24	0,22
<b>Nicaragua</b>					0,52	0,47	0,53	0,75	1,09
<b>Panama</b>					0,58	0,51	0,38	0,48	0,59
<b>Paraguay</b>					0,75	0,73	0,69	0,64	0,80
<b>Peru</b>					0,40	0,47	0,39	0,36	0,57
<b>Uruguay</b>					0,56	0,52	0,68	0,64	0,78
<b>Venezuela</b>				0,40	0,22	0,24	0,29	0,49	0,68

*Sources:* computed from OxLAD (2004).

**Table 9. Urbanization Rates in Latin America**

	1850	1870	1890	1913	1929	1950	1960	1970	1980	1990	2000
<b>Argentina</b>	0,15	0,16	0,30	0,37	0,49	0,64	0,74	0,78	0,83	0,86	0,89
<b>Bolivia</b>					0,22	0,34	0,39	0,41	0,46	0,56	0,65
<b>Brazil</b>			0,15	0,21	0,28	0,36	0,45	0,56	0,66	0,75	0,81
<b>Chile*</b>	0,08	0,15	0,21	0,33	0,43	0,57	0,68	0,75	0,81	0,83	0,85
<b>Colombia</b>			0,11	0,12	0,24	0,35	0,48	0,57	0,64	0,70	0,75
<b>Costa Rica</b>			0,24	0,15	0,20	0,34	0,37	0,40	0,43	0,46	0,52
<b>Cuba</b>	0,18	0,28	0,34	0,33	0,39	0,54	0,55	0,60	0,68	0,74	0,75
<b>Dominican R.</b>				0,11	0,14	0,24	0,30	0,40	0,50	0,58	0,65
<b>Ecuador</b>		0,10	0,20	0,25	0,23	0,29	0,34	0,39	0,47	0,55	0,62
<b>El Salvador</b>				0,26	0,45	0,37	0,38	0,39	0,42	0,44	0,47
<b>Guatemala</b>				0,30	0,25	0,25	0,32	0,36	0,37	0,38	0,40
<b>Haiti</b>						0,12	0,16	0,20	0,24	0,30	0,36
<b>Honduras</b>				0,18	0,24	0,31	0,23	0,29	0,35	0,42	0,47
<b>Mexico</b>			0,16	0,19	0,27	0,43	0,51	0,59	0,66	0,73	0,74
<b>Nicaragua</b>		0,20	0,18	0,23	0,24	0,35	0,40	0,47	0,50	0,53	0,65
<b>Panama</b>				0,14	0,25	0,36	0,41	0,48	0,50	0,54	0,58
<b>Paraguay</b>			0,20	0,37	0,24	0,35	0,36	0,37	0,42	0,49	0,56
<b>Peru</b>				0,12	0,25	0,42	0,46	0,57	0,65	0,69	0,73
<b>Uruguay</b>	0,16	0,29	0,44	0,44	0,49	0,63	0,80	0,82	0,85	0,89	0,91
<b>Venezuela</b>			0,11	0,13	0,27	0,43	0,61	0,72	0,79	0,84	0,87

*Sources:* OxLAD (2004), moved backwards with Flora (1981?), except for Chile since 1870 for which Cariola and Sunkel (1982: 144) were used

**Table 10. Relative Rural Income per Head (GDP per Capita = 1)**

	1900	1913	1929	1950	1960	1970	1980	1990	2000
<b>Argentina</b>	0,41	0,39	0,45	0,48	0,60	0,61	0,65	1,08	1,08
<b>Bolivia</b>				0,39	0,40	0,29	0,27	0,34	0,39
<b>Brazil</b>		0,29	0,32	0,26	0,24	0,23	0,21	0,31	0,47
<b>Chile</b>	0,21	0,23	0,21	0,26	0,30	0,32	0,39	0,48	0,40
<b>Colombia</b>	0,60	0,60	0,65	0,58	0,63	0,67	0,70	0,79	0,84
<b>Costa Rica</b>			0,25	0,58	0,47	0,42	0,36	0,40	0,25
<b>Cuba</b>				0,45	0,41	0,48	0,38	0,35	0,31
<b>Dominican R.</b>				0,45	0,48	0,43	0,37	0,38	0,39
<b>Ecuador</b>				0,59	0,60	0,49	0,40	0,58	0,66
<b>El Salvador</b>			0,79	0,65	0,58	0,51	0,57	0,56	0,42
<b>Guatemala</b>			0,48	0,49	0,49	0,47	0,43	0,44	0,41
<b>Haiti</b>				0,60	0,58	0,63	0,52	0,56	0,57
<b>Honduras</b>			0,74	0,65	0,42	0,49	0,47	0,53	0,52
<b>Mexico</b>	0,33	0,25	0,27	0,32	0,33	0,29	0,25	0,28	0,26
<b>Nicaragua</b>			0,87	0,56	0,49	0,51	0,60	0,67	1,05
<b>Panama</b>				0,51	0,44	0,30	0,28	0,33	0,29
<b>Paraguay</b>				0,62	0,61	0,54	0,49	0,61	0,70
<b>Peru</b>				0,39	0,45	0,44	0,41	0,66	0,85
<b>Uruguay</b>				0,36	0,55	0,71	0,71	0,99	1,15
<b>Venezuela</b>				0,16	0,20	0,26	0,35	0,51	0,59

*Sources:* See the text.

**Table 11. Average Income/Poverty Line Ratio in Latin America (Poverty Line: 1985 G-K \$ 4 a day)**

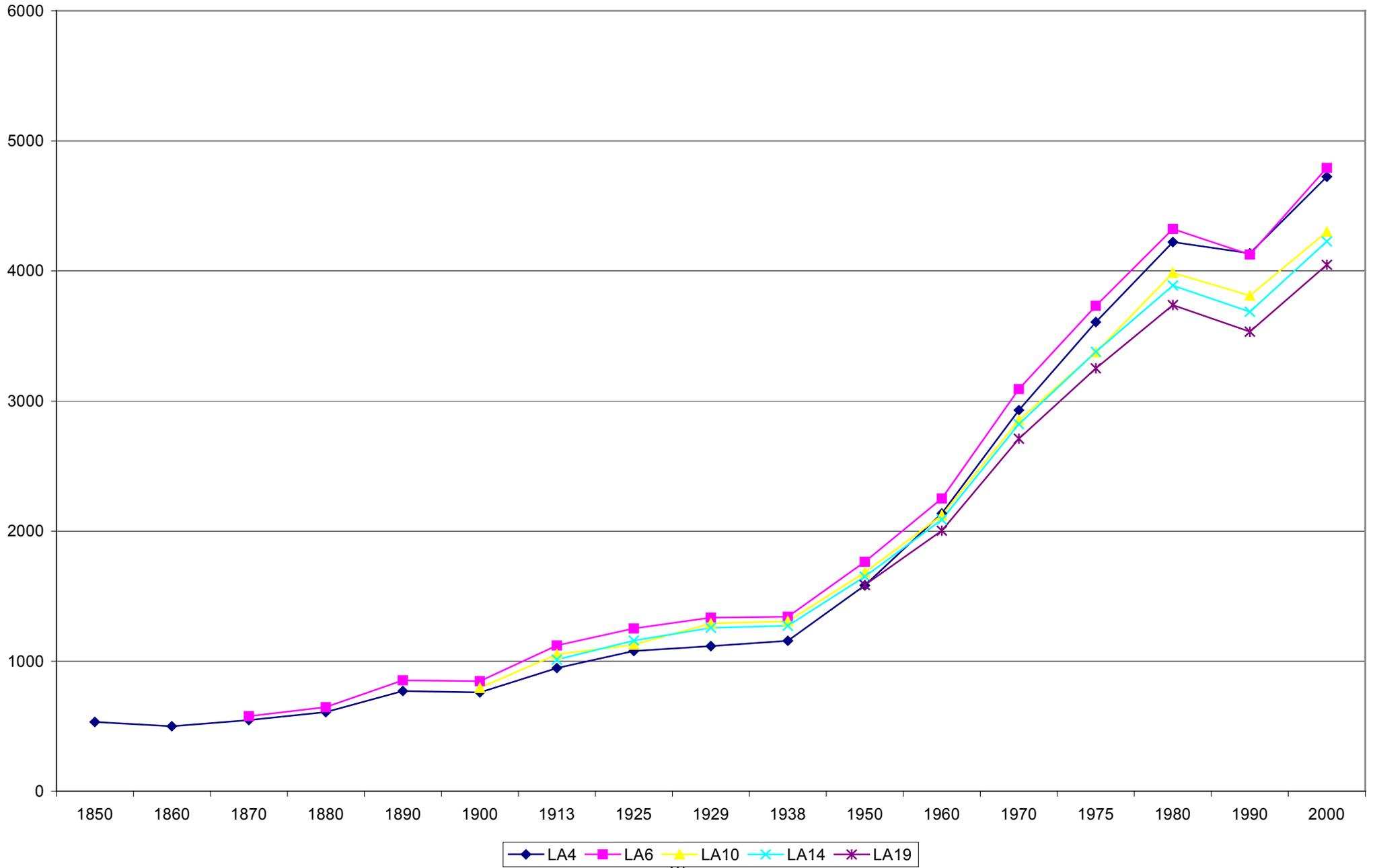
	1850	1860	1870	1880	1890	1900	1913	1929	1938	1950	1960	1970	1980	1990
Argentina			0,7	0,8	1,3	1,2	1,7	1,9	1,8	2,2	2,5	3,6	4,5	3,5
Bolivia										0,8	0,6	0,9	1,1	1,0
Brazil	0,4	0,4	0,4	0,4	0,4	0,4	0,5	0,7	0,7	0,9	1,3	1,7	3,0	3,0
Chile	0,4	0,5	0,6	0,9	0,9	1,1	1,4	1,7	1,5	1,8	2,1	2,5	2,8	3,1
Colombia						0,4	0,5	0,9	1,0	1,2	1,4	1,8	2,4	2,7
Costa Rica							0,9	0,9	1,1	1,1	1,4	1,9	2,6	2,6
Dominican R.										0,7	0,9	1,1	1,6	1,4
Ecuador						0,4	0,5	0,7	0,7	1,1	1,3	1,5	2,3	2,2
El Salvador							0,5	0,6	0,5	0,8	1,0	1,2	1,3	1,1
Guatemala							0,7	0,8	1,1	1,0	1,1	1,4	1,8	1,6
Haiti										0,4	0,5	0,4	0,6	0,4
Honduras							0,6	0,8	0,6	0,7	0,8	0,9	1,0	1,0
Mexico	0,6	0,5	0,6	0,6	1,0	1,0	1,2	1,4	1,4	2,1	2,7	3,8	4,9	4,8
Nicaragua							0,8	1,4	0,8	1,3	1,6	2,5	1,7	1,0
Panama										1,1	1,3	2,0	2,5	2,3
Paraguay									0,8	0,8	0,8	1,0	1,6	1,7
Peru						0,4	0,5	0,9	0,9	1,1	1,4	1,8	2,1	1,5
Uruguay			1,2	1,2	1,3	1,5	2,2	2,5	2,6	3,1	3,3	3,5	4,3	4,3
Venezuela	0,3	0,3	0,2	0,3	0,4	0,4	0,5	1,5	1,6	2,6	3,7	4,7	4,7	3,9
LA4	0,5	0,4	0,5	0,5	0,7	0,7	0,8	1,0	1,0	1,4	1,9	2,6	3,7	3,7
LA6			0,5	0,6	0,8	0,7	1,0	1,2	1,2	1,6	2,0	2,7	3,8	3,7
LA10						0,7	0,9	1,1	1,2	1,5	1,9	2,5	3,5	3,4
LA14							0,9	1,1	1,1	1,5	1,8	2,5	3,4	3,3
LA19										1,4	1,8	2,4	3,3	3,1
Spain	0,6	0,7	0,7	1,0	1,0	1,0	1,2	1,6	1,0	1,3	1,8	3,6	5,3	7,0
OECD15	0,8	1,0	1,1	1,4	1,5	1,8	2,2	2,7	2,7	3,9	5,1	7,2	9,1	11,2
OECD19			1,0	1,2	1,4	1,6	1,9	2,4	2,4	3,3	4,5	6,8	8,7	10,9
OECD21								2,4	2,4	3,3	4,5	6,7	8,6	10,9

**Table 12. Poverty Headcount in Latin America (1985 G-K \$ 4 a day): A Calibration (%)**

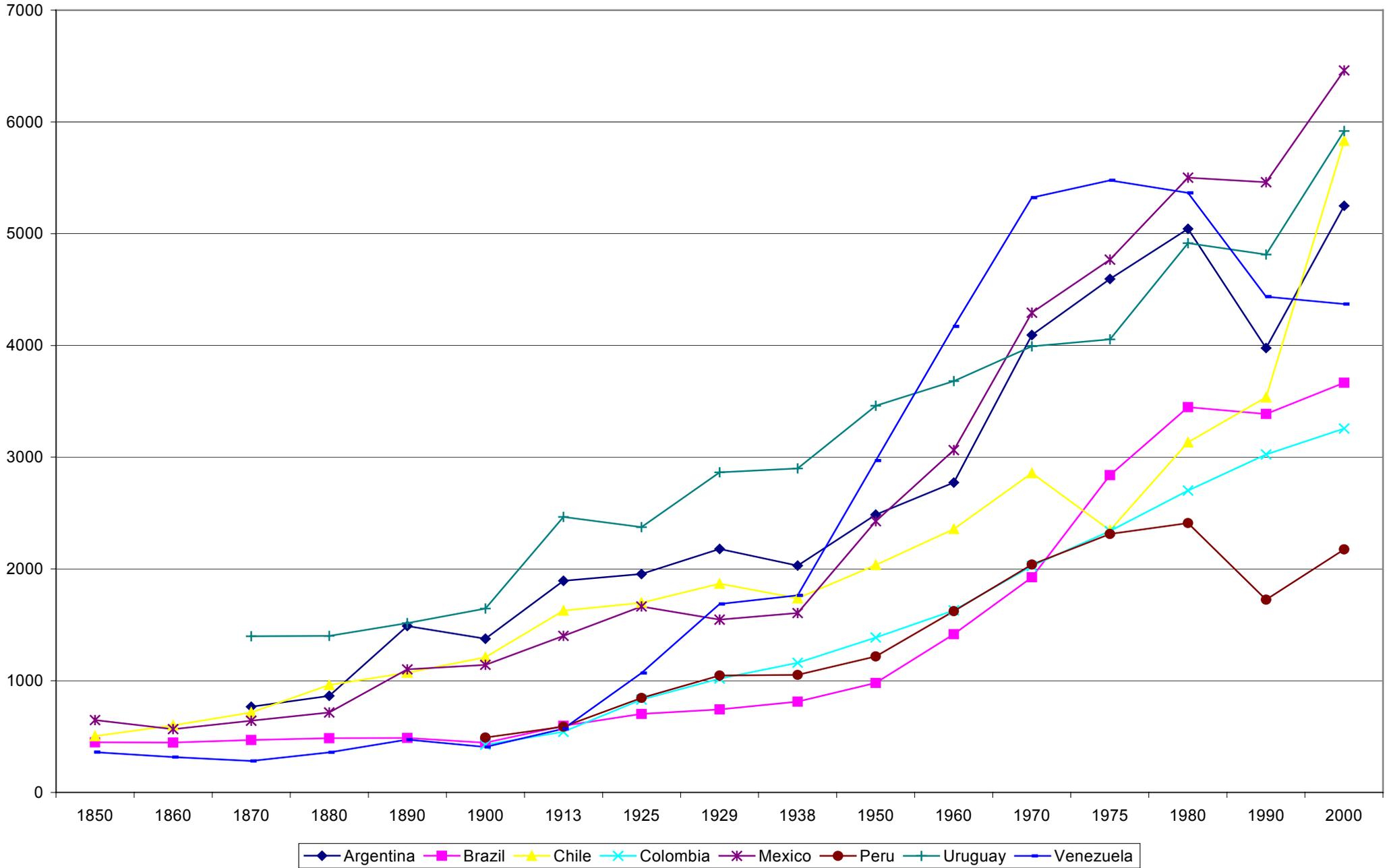
	1850	1860	1870	1880	1890	1900	1913	1929	1938	1950	1960	1970	1980	1990
<b>Argentina</b>			64	60	53	56	58	41	45	24	22	10	11	17
<b>Bolivia</b>													65	71
<b>Brazil</b>	93	96	96	96	95	98	93	82	79	75	64	53	33	34
<b>Chile</b>	94	89	84	74	71	70	65	47	42	36	36	28	31	29
<b>Colombia</b>							90	70	65	61	57	52	32	37
<b>Costa Rica</b>										54	55	35	28	25
<b>Dominican R.</b>										83	71	64	43	53
<b>Ecuador</b>										87	84	79	66	43
<b>El Salvador</b>										74	66	58	58	64
<b>Guatemala</b>										63	52	37	44	59
<b>Honduras</b>										80	80	76	70	71
<b>Mexico</b>							43	31	36	43	41	27	13	15
<b>Nicaragua</b>											64	47	53	70
<b>Panama</b>										69	58	48	28	42
<b>Paraguay</b>													44	54
<b>Peru</b>										60	62	43	29	48
<b>Uruguay</b>			45	48	42	43	32	15	12	11	8	12	8	6
<b>Venezuela</b>										43	14	11	8	11
<b>LatAm4</b>			89	85	84	85	81	67	66	59	52	43	29	30
<b>LatAm6</b>							71	59	60	55	50	40	25	27
<b>LatAm15</b>										57	51	41	27	30
<b>LatAm16</b>											51	41	27	30
<b>Spain</b>	88	81	81	67	67	64	60	39	62	62	39	14	2	0

*Sources:* See text.

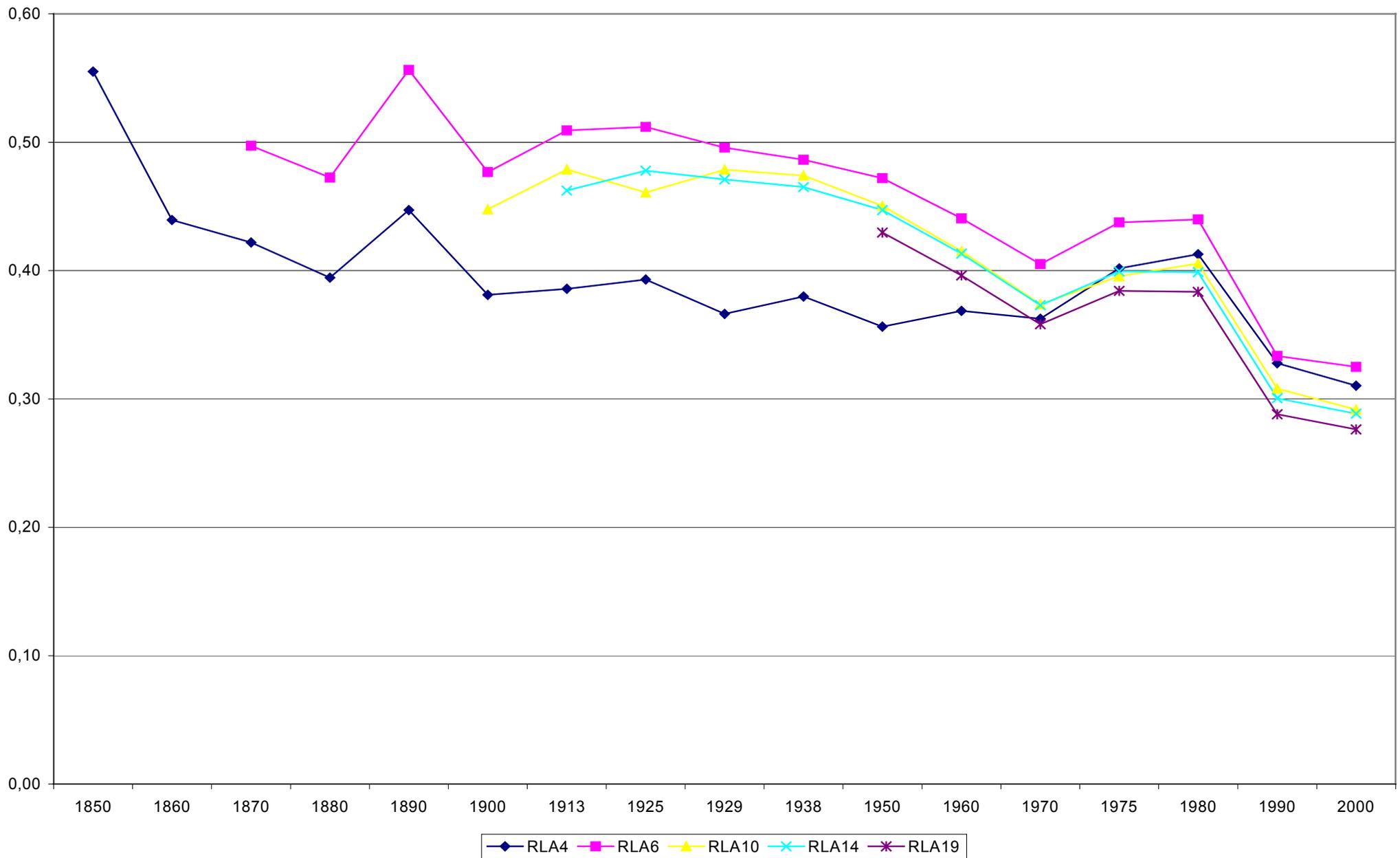
Graph 1. GDP per head in Latin America (1980 G-K \$)



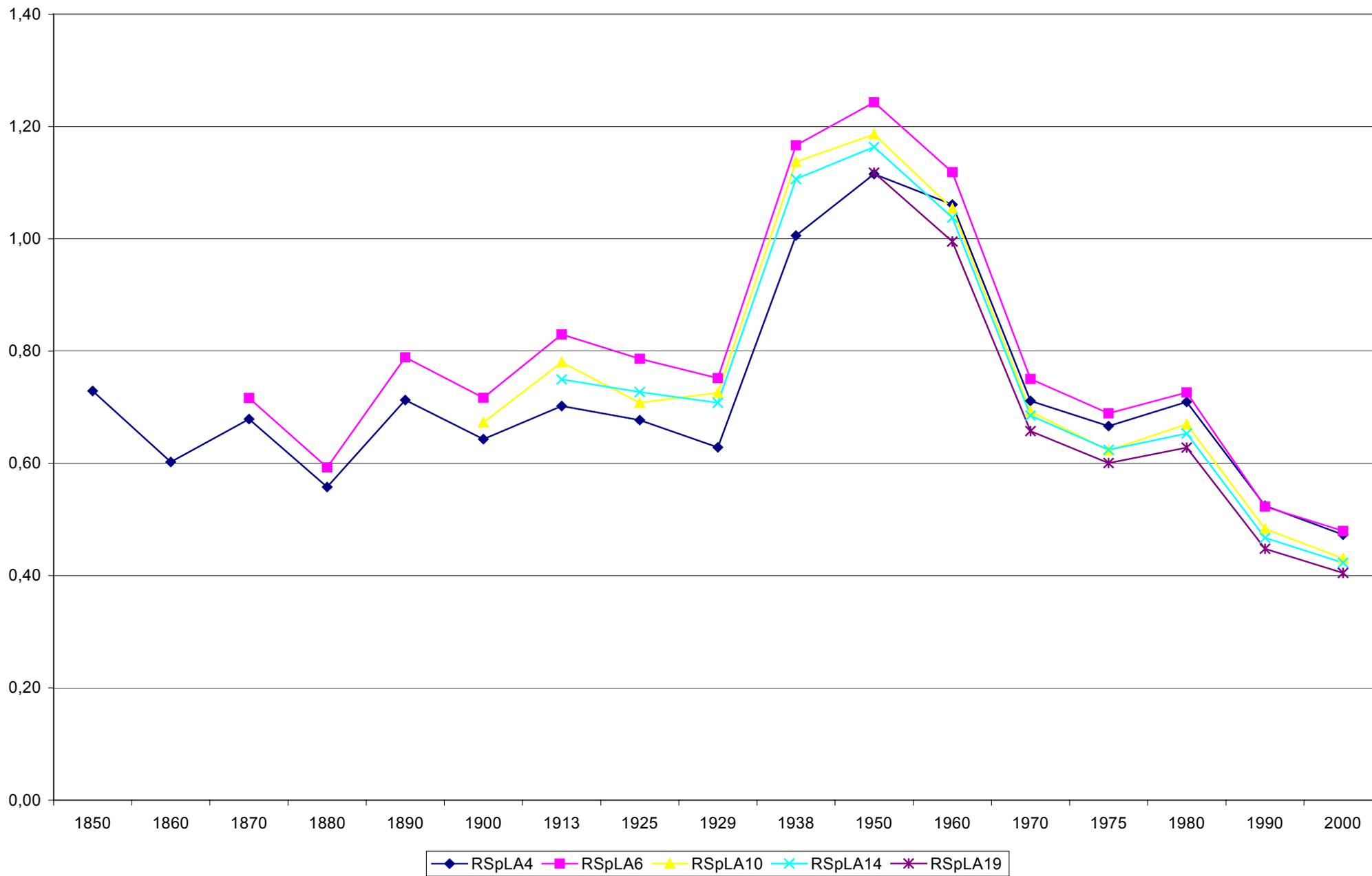
Graph 2. Trends in GDP per Head: 8 Major Latin American Countries (1980 G-K \$)



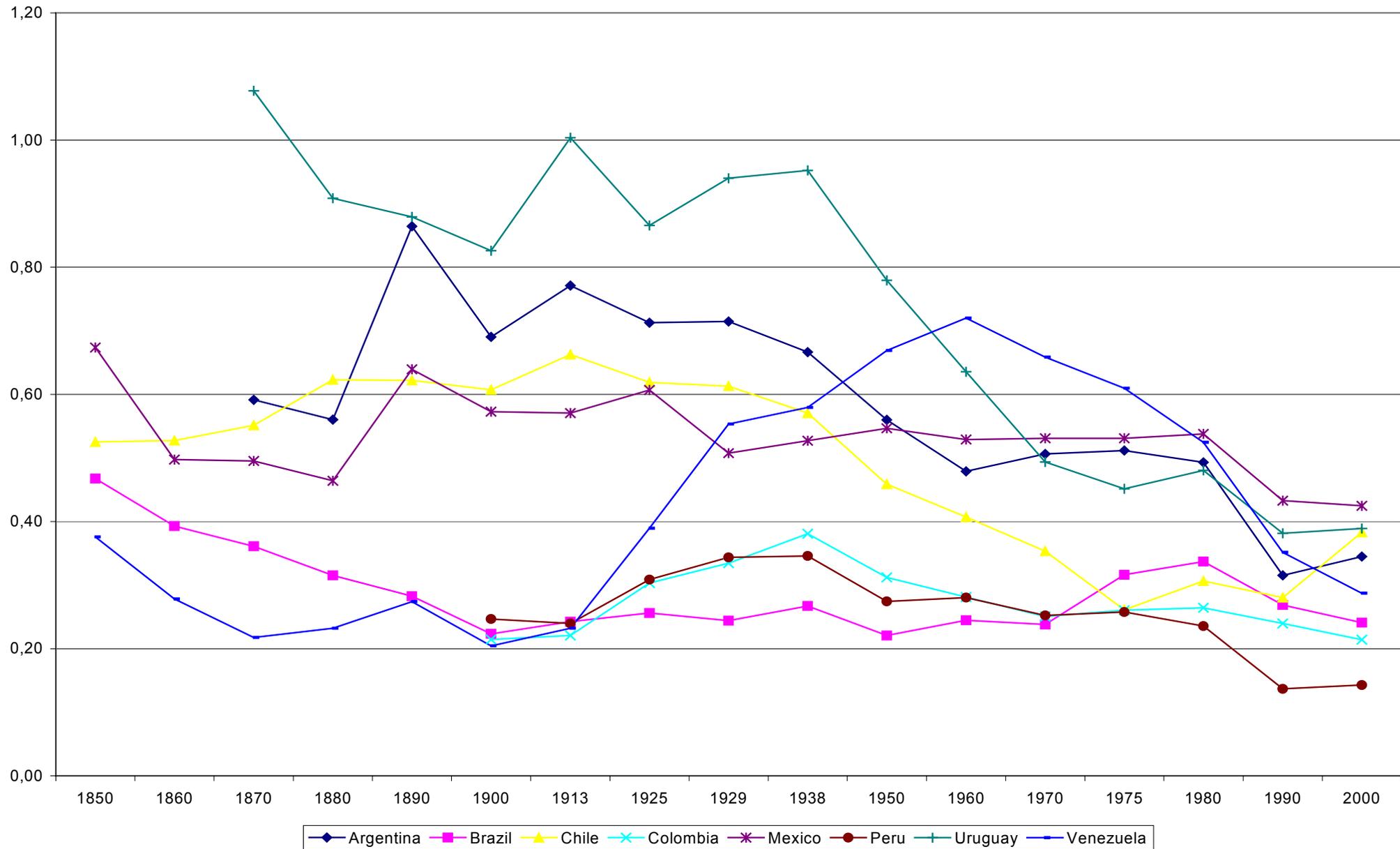
Graph 3. Relative GDP per Head in Latin America (OECD = 1)



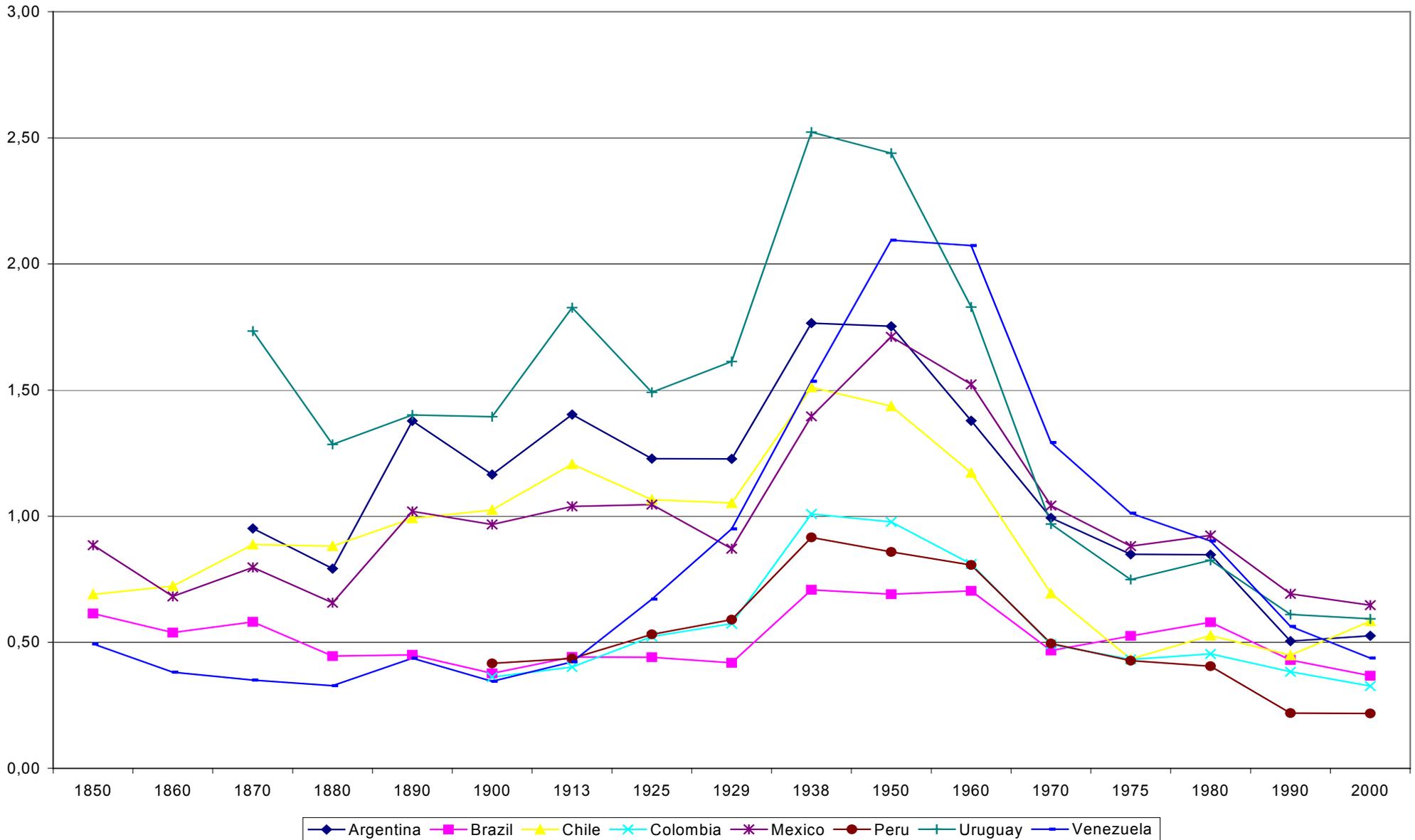
Graph 3b. Relative GDP per Head in Latin America (Spain = 1)



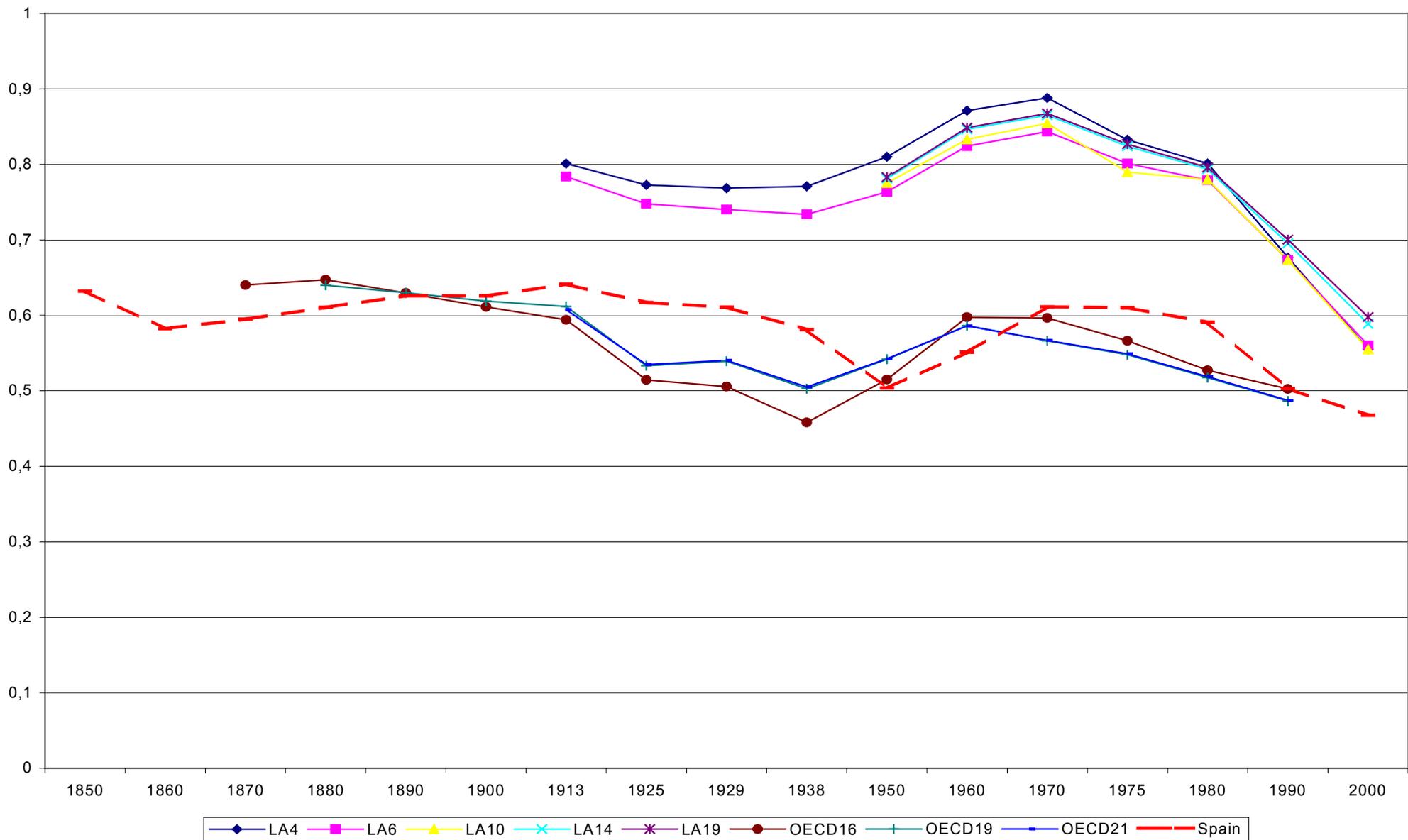
Graph 4. Relative GDP per Head in 8 Major Latin American Countries (OECD15 = 1)



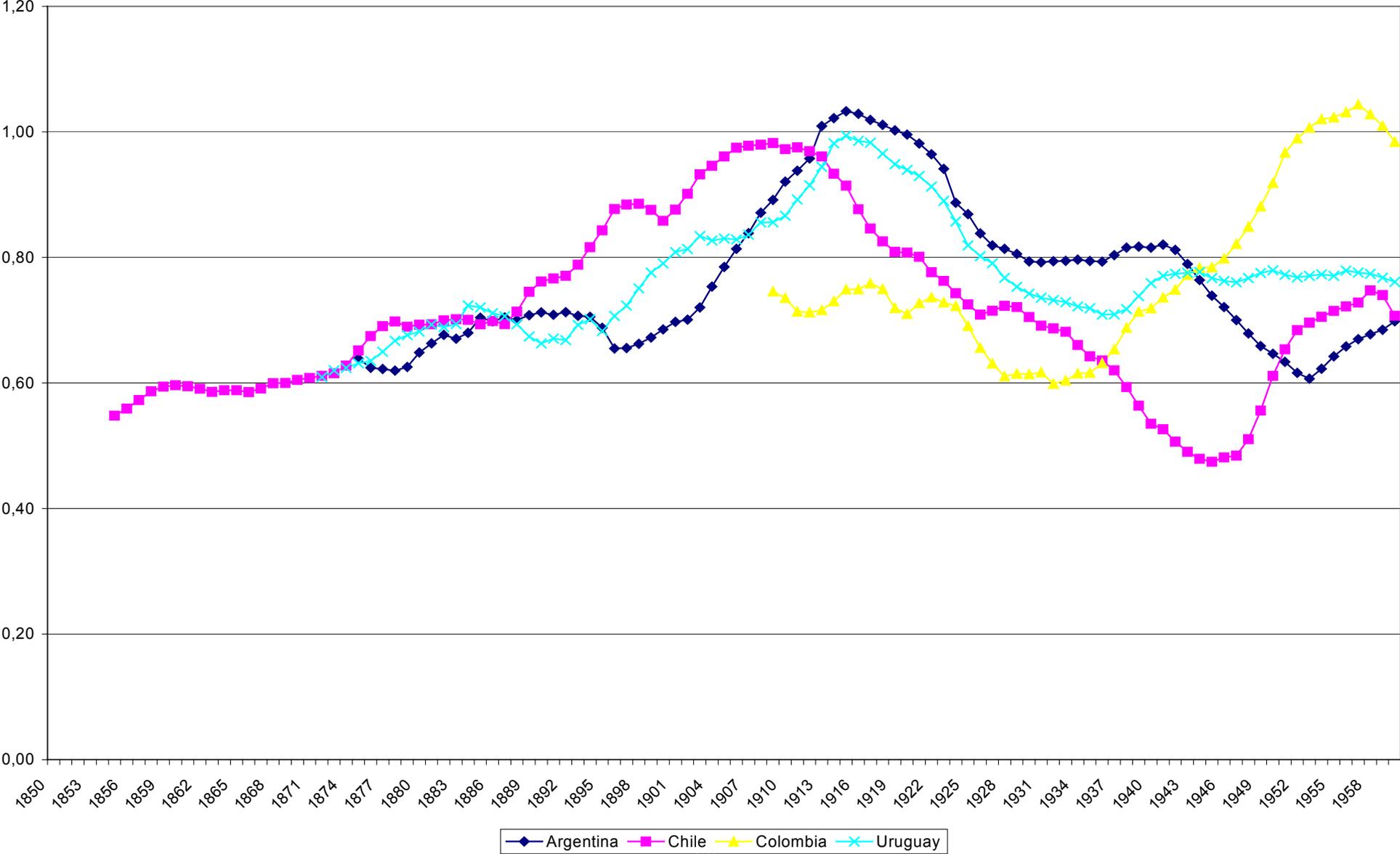
Graph 4b. Relative GDP per Head in 8 Major Latin American Countries (Spain = 1)



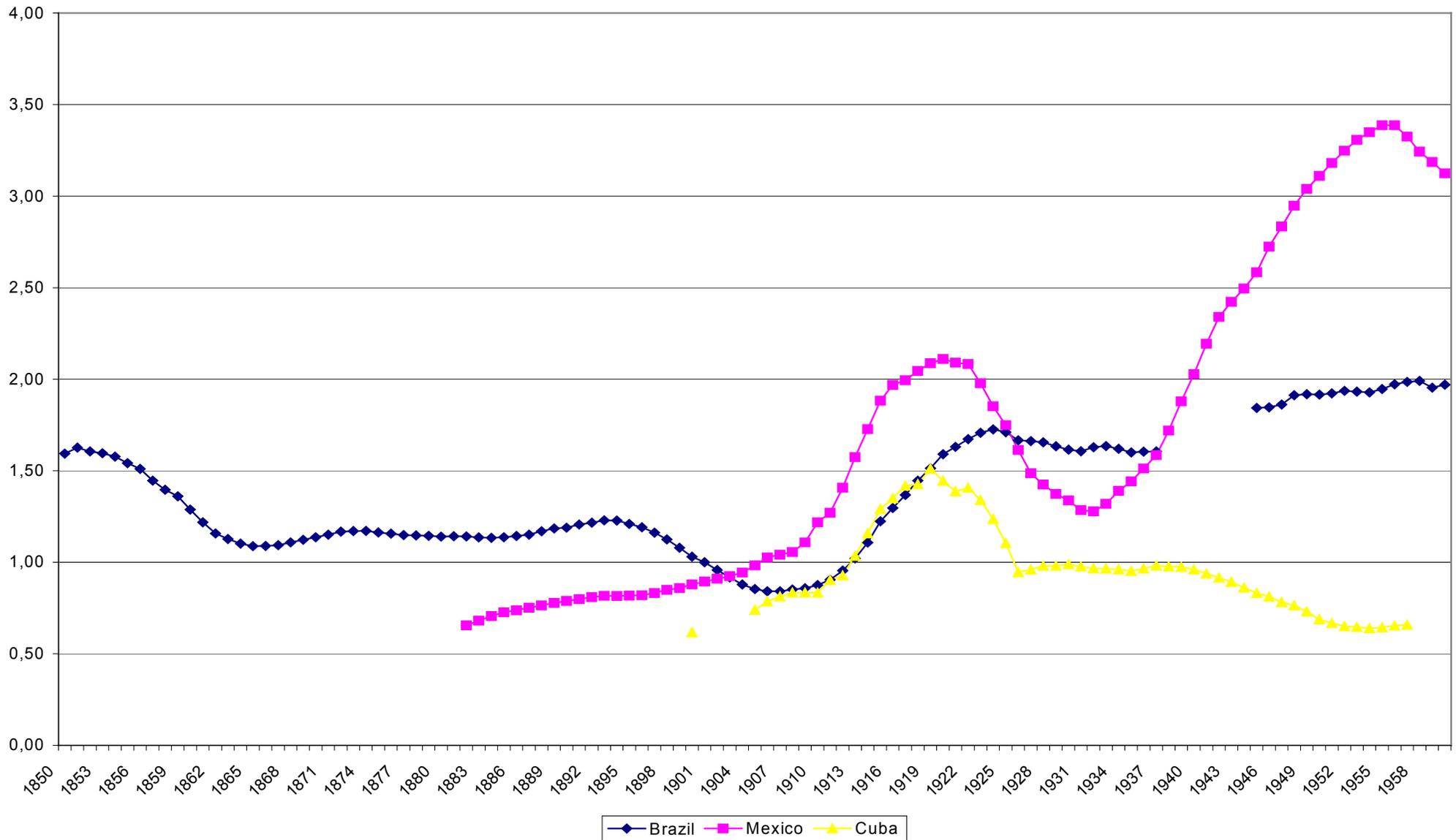
Graph 5. Dependency Rates in Latin America, OECD, and Spain



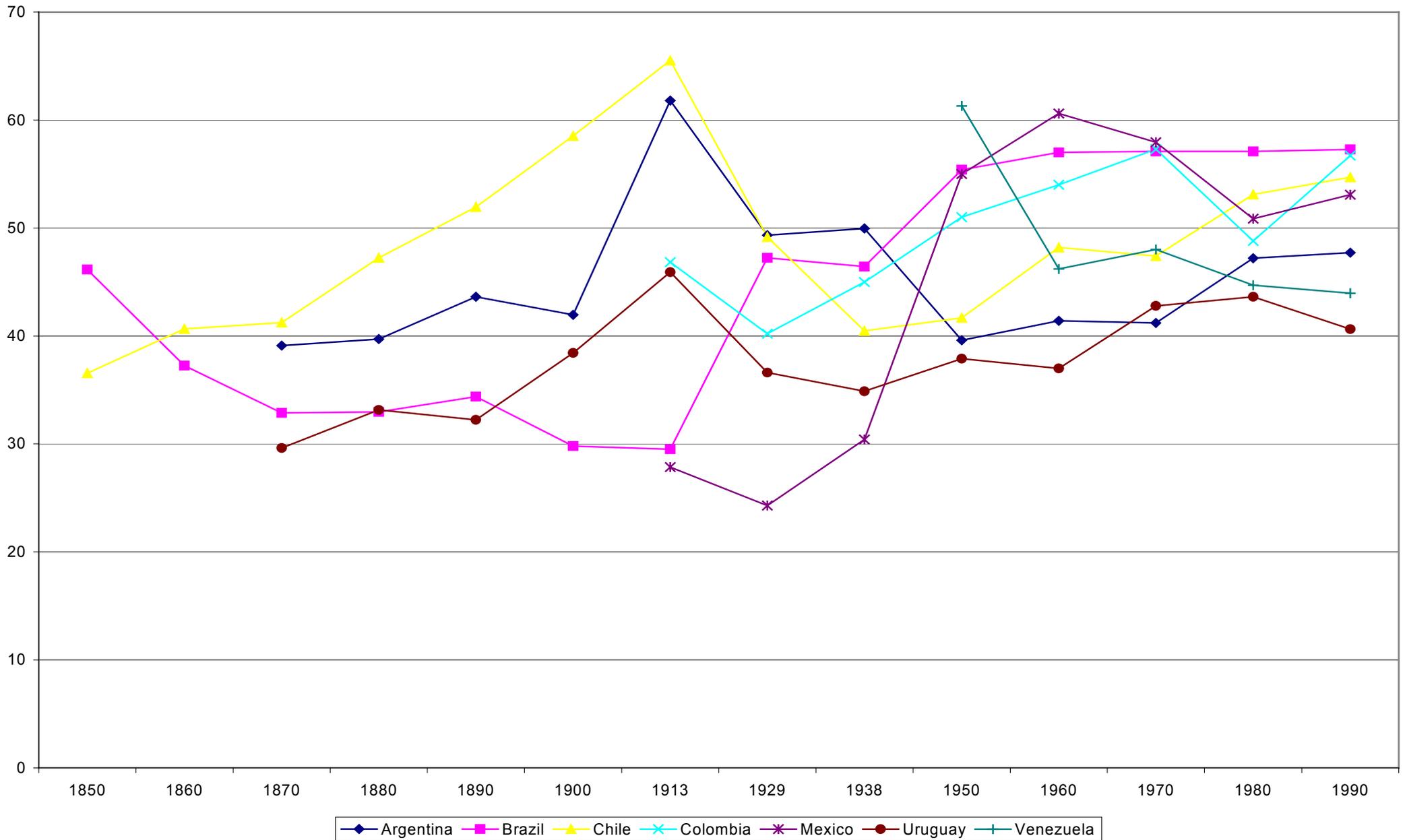
Graph 6. Inequality Trends in Four Latin American Countries



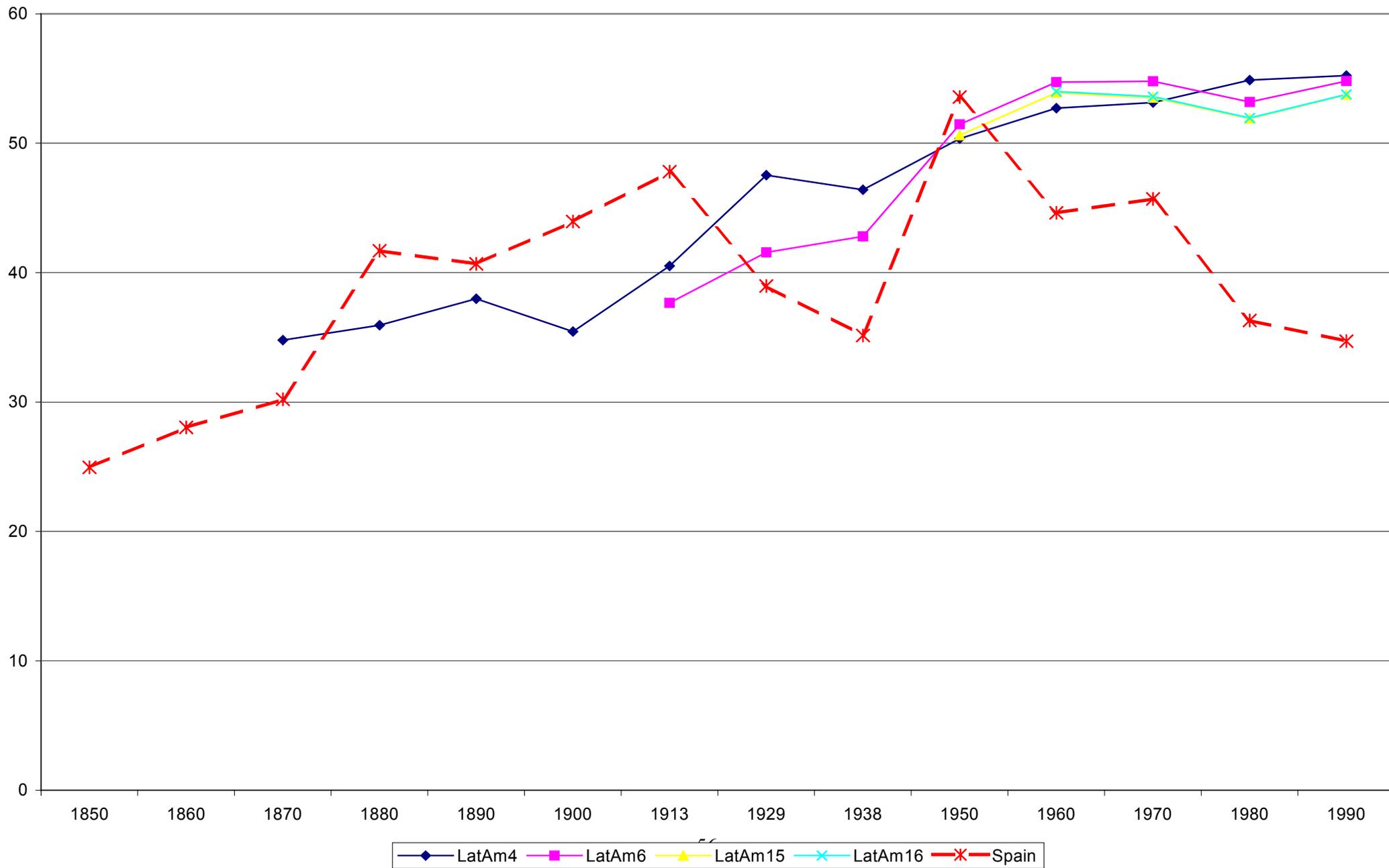
Graph 6b. Inequality Index in Brazil, Cuba, and Mexico



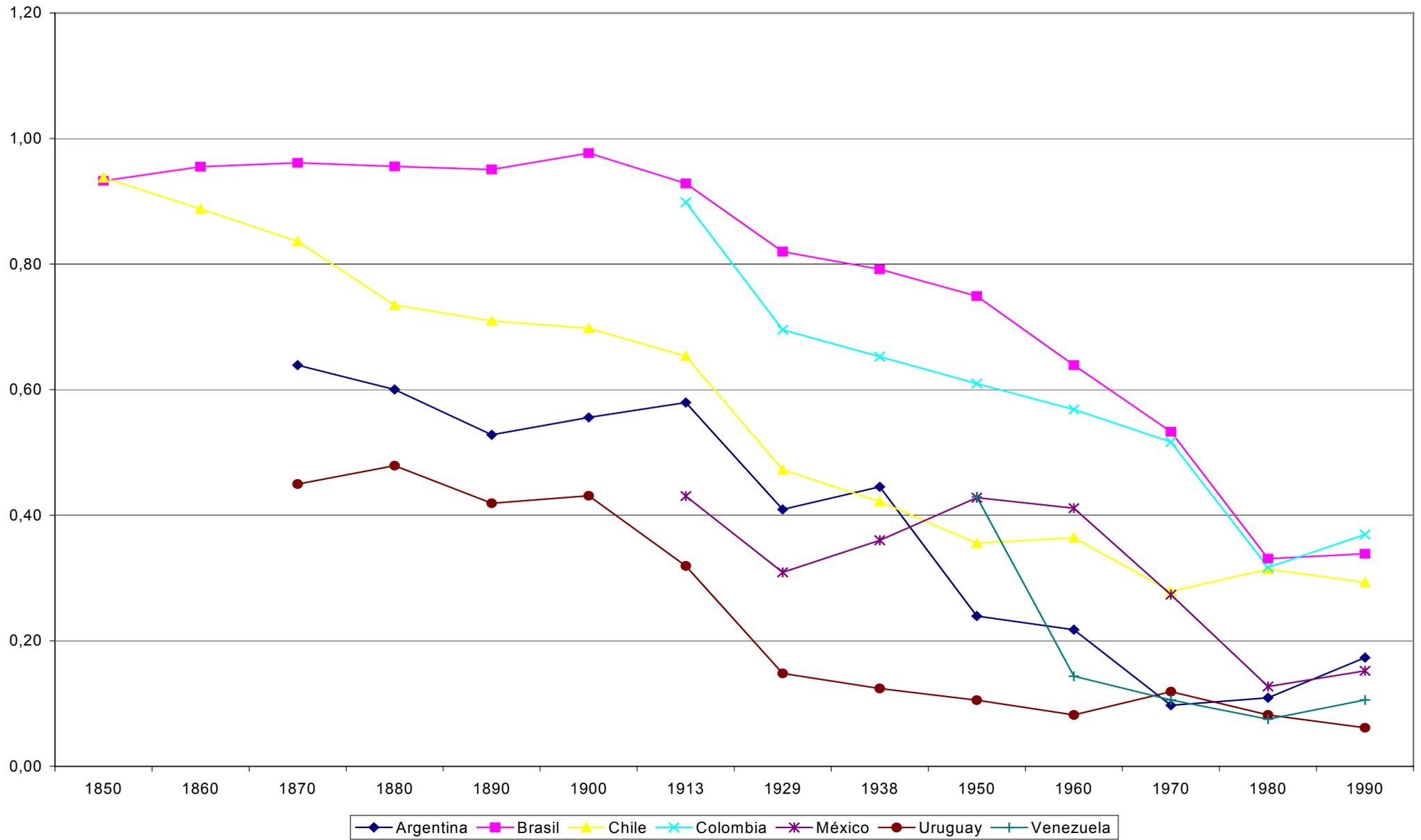
Graph 7. Gini Estimates for Major Latin American Countries



Graph 7b. Gini Estimates for Latin America and Spain



Graph 8. Poverty Headcount in 7 Latin American Countries



Graph 8b. Poverty Headcount in Latin America and Spain (Poverty Line: 1980 G-K \$ 4 a day)

