

When Did Latin America Fall Behind?

Leandro Prados de la Escosura

1.1 Introduction

When did Latin America fall behind, and has the gap between the developed countries and Latin America widened over time are recurrent questions among economic historians. The idea of long-run relative decline since independence has been favored in the literature (Bulmer-Thomas 1994, 410), while it is widely accepted that the origins of modern Latin American economic retardation are located in the nineteenth century (Coatsworth 1993; Haber 1997). Coatsworth (1998) emphasizes that Latin America fell behind between 1700 and 1900, while the gap with the United States remained unchanged during the twentieth century. The evidence on comparative real product per head, assembled by Pablo Astorga and Valpy Fitzgerald (1998, 353), lends support to this view.¹

Explanatory hypotheses for the early failure of Latin America emphasize the initial colonial conditions. The radically different evolution of Anglo and Latin Americas reflects the imposition of distinct metropolitan institutions on each colony (North 1990). Initial inequality of wealth, human capital, and political power conditioned institutional design and, thus,

Leandro Prados de la Escosura is professor of economic history at Universidad Carlos III de Madrid.

This essay was presented at the 2004 Inter-American Seminar on Economics sponsored by the National Bureau of Economic Research and El Colegio de Mexico in México, DF. I am grateful to the organizers, Sebastian Edwards, Gerardo Esquivel, and Graciela Márquez, to its participants, and especially to my discussant, Luis Felipe López Calva, for their remarks and suggestions. Useful comments by Pablo Astorga, Luis Bértola, Joan Rosés, and two anonymous referees are acknowledged. The usual disclaimer applies.

1. In a recent paper, however, Astorga, Bergés, and Fitzgerald (2005) stress that the per capita income trend for a sample of thirteen countries diverged from that of the United States in the second half of the twentieth century.

poor performance in Latin America relative to the United States (Engerman and Sokoloff 1997). Latin America's fate could thus be explained with Acemoglu, Johnson, and Robinson's (2002) "reversal of fortune" theory: in areas of relative affluence, with abundant population, such as Meso-America and the Andes, Europeans established "extractive institutions," with political power concentrated in the hands of an elite, as the most efficient choice—in spite of its long-term negative effects on growth. While in poor, less densely populated areas, Europeans settled in large numbers and developed their own institutions that encouraged investment and growth.²

Another view stresses the role of colonial independence in modern Latin America's destiny. The break with colonial rule destroyed institutions that provided credible commitments to rights and property within the Spanish empire and, as a result, widespread turmoil, violence, and political instability took place after independence, with the consequence of sluggish economic growth (North, Summerhill, and Weingast 2000). Views from the *Dependencia* school concur. The failure to achieve sustained and balanced growth in the new republics over the nineteenth century resulted from the persistence of colonial heritage (Frank 1967; Stanley and Barbara Stein 1970). *Dependentists* saw the opening to the international economy as a cause of increasing inequality across and within countries, stressing the role of the terms of trade in Latin American retardation by shifting resources to primary production (Singer 1950) and by provoking *immiserizing* growth (Prebisch 1950).

Interpretations of Latin America's early backwardness rest on a long-run comparison with the United States. It must be pointed out, however, that most countries, including those of Western Europe, fell behind over the nineteenth century when measured by American standards (Maddison 2003; Prados de la Escosura 2000). Moreover, the claim that Latin America's relative position to the United States remained mostly unaltered during the twentieth century, as proof that her economic retardation occurred in the nineteenth century (Astorga and Fitzgerald 1998; Coatsworth 1998) is at odds with the post-1950 catching-up experience in large areas of the periphery (southern Europe, southeast Asia), in which the gap with the United States in income per head was significantly reduced. The United States appears, therefore, a questionable yardstick to assess Latin America's economic performance.³

Whether Latin America fell behind in the late twentieth century or in the

2. A forerunner of this view is Stanley and Barbara Stein's (1970, 128) counterfactual argument: "had the Englishmen found a dense and highly organized Amerindian population, the history of what is called the United States would record the development of a stratified, bi-racial, very different society."

3. The U.S. exceptionalism was emphasized by Stanley and Barbara Stein (1970, 128): "the existence of a huge, under-populated virgin land of extraordinary resource endowment directly facing Europe and enjoying a climate comparable to that of Europe represented a potentiality for development which existed nowhere else in the New World."

early nineteenth century has important consequences for the ongoing debate on its causes. If her backwardness originated in the decades after independence, institutional and factor endowments differences with the United States and western Europe are relevant to provide an explanation. If, however, her retardation occurred in the late twentieth century, discrepancies between Latin and British Americas during the colonial and the post-independence periods become secondary to exploring what went wrong in Latin America during the phase of widespread catching up to the developed countries in regions of the periphery (southern Europe, East Asia). Explanations that emphasize the cost of inward-looking policies, macroeconomic instability, and poor contract enforcement would then come to the fore.⁴

My purpose in this paper is to reexamine the timing of Latin America's economic retardation—first, by using a more representative comparator, such as a group of countries included under the OECD acronym, and second, by resorting to the tools employed in the inequality literature.⁵ Interestingly, in their pioneering contribution, Bourguignon and Morrisson (2002, 738) did not discuss the case of Latin America, “because its economic growth over the last two centuries has roughly coincided with the world average.”⁶

Among the main findings of the paper that can be highlighted are that, contrary to widespread belief, it was during the late twentieth century when Latin America fell behind more dramatically. A long-term rise in real average per capita income inequality is found for a large sample of countries encompassing most of Europe, the Americas, and Oceania. The rise in intercountry inequality resulted from the widening gap between the OECD countries and Latin America, as opposed to the reduction in income differences within each of these country groups. As a result, polarization emerged.

This chapter is organized as follows: section 1.2 compares per capita income levels and growth rates. Section 1.3 presents new measures of long-run intercountry economic inequality that can be decomposed into the underlying changes within and across regions' inequality. When did Latin America fall behind is re-assessed in the concluding section.

1.2 Real Income Trends

In international comparisons, dissatisfaction with *nominal* income (that is, GDP per head in national currency converted into a common currency,

4. Such as those proposed, among others, by Cardoso and Fishlow (1992), Edwards (1995), de Gregorio (1992), and Taylor (1998).

5. I describe OECD, for short, as a sample of today's advanced nations from Europe, the so-called “areas of new settlement” or Maddison's (2003) “European offshoots” (Australia, Canada, and New Zealand), the United States, and Japan.

6. No systematic assessments of international inequality over the long run exist other than Bourguignon and Morrisson's (2002) and Lindert and Williamson's (2003) contributions.

using the trading exchange rate) has led to an almost generalized use of *real* income (the conversion of per capita income into a common currency is carried out with a purchasing power parity [PPP] exchange rate).⁷ Unfortunately, the construction of PPP converters involves high costs in terms of time and resources. Only PPPs for a restricted country sample that does not include any of Latin America have been constructed for earlier periods, and most of them for output components.⁸

An indirect method to derive historical estimates of real income levels for a large sample of countries is the backward projection of PPP-adjusted GDP per capita for a recent benchmark with volume indices (or growth rates) of product per head derived from national accounts data.⁹ It is worth noting that fixed-base *real* (PPP-adjusted) product data represent a most convenient alternative to carrying out painstaking direct comparisons across space and time, and have the presentation advantage that their growth rates are identical to those calculated from national accounts.¹⁰ Alas, a distant PPP benchmark introduces distortions in intertemporal comparisons, since its validity depends on how stable the basket of goods and services used to construct the original PPP converters remains over time. As growth occurs over time the composition of output, consumption, and relative prices all vary, and the economic meaning of comparing real product per head based upon remote PPPs becomes entirely questionable. Hence, using a single PPP benchmark for long-run comparisons implies the hardly realistic assumption that no changes in relative prices (and hence, no technological change) takes place over time.

7. Empirical evidence gathered in recent years strongly rejects the conventional results obtained through the trading exchange rate converter (Summers and Heston 1991, van Ark 1993). Trading exchange rates only reflect the purchasing power of goods traded internationally, and are influenced by capital movements, exchange controls, and speculation (Maddison 1995, 162). In other words, foreign exchange rates do not measure relative price levels and do not move with them over time (Ahmad 1998).

8. In addition to O'Brien and Keyder's (1978) and Fremdling's (1991) PPP computations for commodity output, there are sectoral PPP estimates: for agriculture, Luiten van Zanden (1991) and O'Brien and Prados de la Escosura (1992), and for manufacturing, Broadberry and Fremdling (1990), Broadberry (1994, 1997), Burger (1997), and Dormois and Bardini (1995). Exceptionally, Williamson (1995) used an income approach. Recently, Ward and Devereux (2003a, 2003b) have accepted the challenge to build direct PPP estimates from the expenditure side for twelve western economies at five benchmarks (1872, 1884, 1905, 1930, and 1950).

9. Maddison's (2003) 1990 Geary-Khamis dollar estimates provide the best example.

10. A significant strand of the literature defends the view that the best estimates of growth rates are those obtained from national accounts (Bhagwati and Hansen 1973; Isenman 1980; Kravis and Lipsey 1991; Maddison 1991, 1995) on the grounds that "using domestic prices to measure growth rates is more reliable, because those prices characterize the trade offs faced by the decision making agents" (Nuxoll 1994, 1423). Kravis and Lipsey (1991, 458) argued that growth rates derived from domestic prices were preferable because the basket of goods used "reflected the preferences of purchasers of final product in one of the years being compared."

Since PPP exchange rates were not computed directly for Latin American countries in 1990 (Maddison 1995, 2001), I have resorted to a set of own-country weights (Paasche) PPP direct computations by the Economic Commission for Latin America (ECLA) for 1960, never used before in historical studies, which provides a wider spatial coverage. The commodity basket included 261 consumption goods and 113 investment goods for capital cities in nineteen Latin American countries and the United States (Houston and Los Angeles). Prices were collected in 1960–62. Quantity expenditure weights for a Latin American average and the United States in 1960 were used (ECLA 1968; Stanley Braithwaite 1968).¹¹ Alternatively, Geary-Khamis PPPs, derived by the UN's International Comparisons Project (ICP), could have been used for most Latin American countries in 1980¹² (and for all in 1996).¹³ There are two reasons for the choice of the 1960 benchmark: (a) in absence of current price PPP-adjusted GDP levels, real income at 1960 U.S. prices provides an intermediate year for the time span considered that it is preferable to the use of a benchmark year for the end of the twentieth century,¹⁴ and (b) GDP volume series expressed in U.S. relative prices (derived with Paasche PPPs) facilitate the comparison with available OECD countries' real (PPP-adjusted) income per head, expressed in U.S. relative prices (Prados de la Escosura 2000). A set of real product per head estimates, which includes Europe, the Americas, Oceania, and Japan, has been constructed at 1960 U.S. relative prices by projecting backward with volume indices the benchmarks for Latin America (ECLA 1968) and my own one for OECD countries (Prados de la Escosura 2000).¹⁵

Figure 1.1 and table 1.1 present trends in population-weighted measures of real GDP per head in Latin America and OECD over one and a half centuries for different country samples in which time and spatial coverage are inversely related, so the lengthier the time span covered the lower the number of countries comprised in the sample. Hence, the figures for wider cov-

11. PPPs in ECLA (1960) appear, thus, to be superior in country coverage but not in commodity coverage to Program of Joint Studies on Latin American Economic Integration and Development (ECIEL) benchmark estimates for 1970 and 1975 (Salazar-Carrillo 1983; Salazar-Carrillo and Tirado de Alonso 1988; Salazar-Carrillo and Prasad Rao 1988).

12. I have replicated the whole exercise presented here at 1980 international prices with no major discrepancies in the results, except for the fact that relative levels of Latin America's per capita GDP in terms of OECD average are significantly higher when expressed in 1980 international dollars.

13. It is worth noting that the 1970 benchmark, originally published by CEPAL (the Spanish acronym of ECLA; 1978) and used in Astorga, Bergés, and Fitzgerald (2005), is just a projection of the 1960 benchmark levels with each Latin American country's inflation differential to the United States.

14. I am currently preparing new shortcut *current* price estimates of *real* income (at U.S. relative prices) for Latin America.

15. The sources for the volume indices of GDP per head are provided in appendix A.

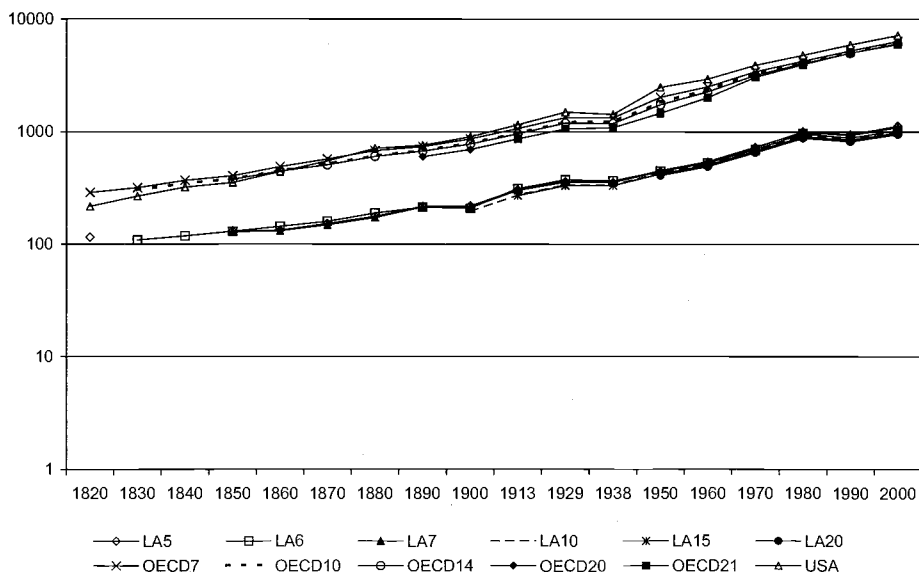


Fig. 1.1 Real per capita GDP in Latin America, the OECD, and the United States (1960 U.S. relative prices)

erage in table 1.1 (columns in bold) should be preferred.¹⁶ Some main features of historical performance in Latin America can be pointed out. In the first place, the origins of modern economic growth, as defined by a sustained increase in output per person, can be traced back at least to the mid-nineteenth century. Latin America appears to have experienced a sustained and gradual growth over one and a half century, a trend only broken during the 1890s, the Great Depression, and, especially, the 1980s crisis, in which per capita GDP multiplied by 8.5 times.

Alas, only scant quantitative evidence exists for the early nineteenth century. Growth rates varied substantially across Latin America. Mexico seems to have experienced a decline in per capita income during the period of independence and a very mild recovery between the 1820s and mid-nineteenth century (Coatsworth 1989, 2003; Salvucci 1997), and the fate of Peru was probably similar (Quiroz 1993), while Brazil appears to have experienced stagnation (Leff 1982) and, perhaps, also Colombia (Kalmanovitz 2005; Jaramillo Uribe, Meisel, and Urrutia 2001). A long-run improvement in income per head occurred in Cuba until 1860 (Fraile, Salvucci, and Salvucci 1993; Santamaría 2005), Venezuela (Baptista 1997), Chile (Díaz, Lüders, and Wagner 1998), and it can be guessed, also in the

16. The data in figure 1.1 correspond to roughly decadal benchmarks in order to facilitate its reading. Table 1.1 presents all the available benchmarks.

Table 1.1 Per capita GDP in Latin America, the OECD, and the United States (1960 U.S. relative prices; population weighted averages)

	LA5	LA6	LA7	LA10	LA15	LA20	OECD7	OECD10	OECD14	OECD20	OECD21	U.S.
1820	115						289					217
1830		109					318	305				268
1840		119					370	349				322
1850	131	130	129				407	382	378			354.
1860	133	144	132				490	453	447			443
1870	153	160	149				573	519	508			550
1880	177	189	173				680	612	605			712
1890	217	214	214				739	685	675	602		760
1900	219	210	213	196			866	796	779	698		905
1913	305	313	302	275	271		1,068	976	961	865	865	1,154
1925	338	336	333	311	305		1,215	1,100	1,074	963	961	1,354
1929	361	376	359	339	333		1,337	1,220	1,194	1,062	1,060	1,498
1933	303	309	298	286	282		1,070	976	962	889	888	1,065
1938	356	367	355	339	334		1,331	1,237	1,187	1,089	1,087	1,427
1950	445	450	455	432	424	410	2,028	1,831	1,740	1,464	1,462	2,484
1955	488	489	498	476	466	451	2,329	2,164	2,056	1,766	1,764	2,808
1960	535	531	546	520	509	492	2,512	2,384	2,268	2,016	2,013	2,941
1965	609	594	622	591	579	559	2,989	2,846	2,736	2,497	2,493	3,459
1970	727	698	733	691	675	654	3,426	3,281	3,178	3,059	3,054	3,907
1975	867	848	869	817	796	772	3,747	3,610	3,546	3,436	3,431	4,197
1980	1,004	966	994	933	906	879	4,256	4,128	4,045	3,969	3,963	4,800
1985	937	880	925	870	841	815	4,667	4,516	4,413	4,368	4,360	5,302
1990	945	884	933	877	848	820	5,243	5,088	5,000	5,014	5,007	5,918
1995	1,031	989	1,007	952	919	887	5,538	5,359	5,274	5,283	5,278	6,246
2000	1,127	1,031	1,093	1,017	980	947	6,357	6,112	6,042	5,959	5,961	7,175

Sources: See appendix A.

Notes: Numbers in *italics* are based on estimates for most countries. See text for explanation. LA5 = Argentina, Brazil, Chile, Mexico, and Uruguay; LA6 = Argentina, Brazil, Chile, Cuba, Uruguay, and Venezuela; LA7 = Argentina, Brazil, Chile, Cuba, Mexico, Uruguay, and Venezuela; LA10 = LA7 plus Colombia, Ecuador, and Peru; LA15 = LA10 plus Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua; LA20 = all Latin America; OECD7 = Australia, Denmark, France, the Netherlands, Sweden, the United Kingdom, and the United States; OECD10 = Austria, Belgium, Denmark, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom, and the United States; OECD14 = Australia, Austria, Belgium, Canada, Denmark, France, Germany, the Netherlands, Norway, Portugal, Spain, Sweden, the United Kingdom, and the United States; OECD20 = OECD14 plus Finland, Greece, Italy, Japan, New Zealand, and Switzerland; and OECD21 = OECD20 plus Ireland.

River Plate (Newland 1998; Newland and Poulson 1998).¹⁷ On the whole, and if the fragmented evidence and conjectures for each country are weighted by its population, it can be hypothesized that, once independence was completed, moderate per capita income growth (below 0.5 percent per year) took place between the 1820s and mid-nineteenth century. If we accept these conjectures, it could be hypothesized that real per capita income multiplied by 10 between 1820 and 2000.

In table 1.2 growth rates are presented for different aggregates of Latin American countries; fortunately, the picture they offer of Latin America's long-run performance appears quite robust. After a slow start, Latin America grew significantly during the three decades following 1860 and, after the 1890s slowdown, growth accelerated in the early years of the twentieth century up to World War I. A comparison with the advanced countries shows that Latin America experienced faster growth than the OECD group in the 1880s and from 1900 to 1913. Latin America's output per head slowed down during 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 during the interwar years. After the Depression, Latin America enjoyed its fastest phase of growth, which lasted more than four decades (1938–80). Its rate of growth remained, however, below that of OECD countries, and only exhibited a better performance in the 1970s. As for the "Golden Age" (1950–73), Latin America only managed to match the U.S. growth rate, but was way behind that of the OECD group. The 1980s represented a major break in the long-run performance of Latin America that the sluggish growth of the 1990s failed to offset. On the whole, the last two decades of the twentieth century offer the poorest relative economic record in the last one hundred and fifty years of Latin American history.

To sum up, during the decades after independence Latin America experienced moderate economic growth that fell short of that achieved by a small group of rich countries. Latin America then kept pace with the growth of the advanced countries' club throughout the period 1860–1938. The second half of the twentieth century represents, in turn, a phase of relative decline that was exacerbated in its last twenty years. In an

17. For Venezuela, Baptista (1997) estimates indicate an annual compound rate of 2.2 percent for real income per head between 1831–35 and 1851–55. As for Cuba, figures suggested by Fraile, Linda and Richard Salvucci (1993), and Santamaría (2005) allow us to suggest that per capita GDP grew at 0.6 percent per year between 1830 and 1850. In the case of Chile, Díaz, Lüders, and Wagner (1998) figures suggest that real output per head grew at 1.4 percent between 1820 and 1850. In turn, Argentina's littoral agricultural output per head grew at 2 percent per year over 1825–1865 (Newland and Poulson 1998; Newland 1998). Assuming that this sector was representative of the littoral economy as a whole, and that no per capita growth occurred in Argentina's interior provinces, an overall rate of growth of 0.8 percent would result for per capita GDP. It could reasonably be assumed that Uruguay evolved as did Argentina. As regards Mexico, a mild rise in GDP per capita at 0.2 percent per year over the period 1820–45 is suggested by Coatsworth (2003).

Table 1.2 Per capita GDP growth in Latin America, the OECD, and the United States

	LA5	LA6	LA7	LA10	LA15	LA20	OECD7	OECD10	OECD14	OECD20	OECD21	U.S.
1820-1850	0.4						1.1					1.6
1830-1850		0.9					1.2	1.1				1.4
1850-1860	0.1	1.0	0.2				1.9	1.7	1.7			2.2
1860-1870	1.4	1.0	1.2				1.6	1.4	1.3			2.2
1870-1880	1.5	1.7	1.5				1.7	1.6	1.7			2.6
1880-1890	2.1	1.2	2.1				0.8	1.1	1.1			0.7
1890-1900	0.1	-0.2	0.0				1.6	1.5	1.4	1.5		1.7
1900-1913	2.6	3.1	2.7	2.6			1.6	1.6	1.6	1.7		1.9
1913-1929	1.1	1.1	1.1	1.3	1.3		1.4	1.3	1.3	1.2	1.3	1.6
1929-1938	-0.2	-0.2	-0.1	0.0	0.0		-0.1	0.2	-0.1	0.3	0.3	-0.5
1938-1950	1.9	1.7	2.1	2.0	2.0		3.5	3.3	3.2	2.5	2.5	4.6
1950-1960	1.8	1.7	1.8	1.9	1.8	1.8	2.1	2.6	2.7	3.2	3.2	1.7
1960-1970	3.1	2.7	2.9	2.8	2.8	2.8	3.1	3.2	3.4	4.2	4.2	2.8
1970-1980	3.2	3.2	3.0	3.0	2.9	3.0	2.2	2.3	2.4	2.6	2.6	2.1
1980-1990	-0.6	-0.9	-0.6	-0.6	-0.7	-0.7	2.1	2.1	2.1	2.3	2.3	2.1
1990-2000	1.8	1.5	1.6	1.5	1.5	1.4	1.9	1.8	1.9	1.7	1.7	1.9
1860-1890	1.6	1.3	1.6				1.4	1.4	1.4			1.8
1890-1913	1.5	1.7	1.5				1.6	1.5	1.5			1.8
1913-1938	0.6	0.6	0.7	0.8	0.8		0.9	0.9	0.8	0.9	0.9	0.8
1938-1950	1.0	1.0	1.1	1.2	1.2		1.7	1.7	1.6	1.4	1.4	2.1
1950-1980	2.7	2.5	2.6	2.6	2.5	2.5	2.5	2.7	2.5	3.3	3.3	2.2
1980-2000	0.6	0.3	0.5	0.4	0.4	0.4	2.0	2.0	2.0	2.0	2.0	2.0
1860-1929	1.4	1.4	1.5				1.5	1.4	1.4			1.8
1860-1938	1.3	1.2	1.3				1.3	1.3	1.3			1.5
1938-1950	2.5	2.3	2.4	2.4			2.8	2.9	2.9	3.1	3.1	2.9
1850-2000	1.4	1.4	1.4				1.8	1.8	1.8			2.0
1850-1980	1.6	1.5	1.6				1.8	1.8	1.8			2.0
1900-2000	1.6	1.6	1.6	1.6			2.0	2.0	2.0	2.1		2.1
1913-2000	1.5	1.4	1.5	1.5	1.5		2.1	2.1	2.1	2.2	2.2	2.1
1820-2000	1.3						1.7					1.9
1830-2000		1.3					1.8	1.8				1.9

Sources: See appendix A.

Notes: Numbers in *italics* are based on estimates for most countries. See text for explanation. See table 1.1 notes for explanations of abbreviations.

increasingly globalized world, in which access to the latest technological vintage depends upon a country's social capability, Latin American performance appears especially disappointing. The cases of southern Europe and, more recently, of southeast Asian nations provide a most interesting counterpoint. Starting from lower levels of GDP per head and, subsequently, with a poorer endowment of human and physical capital, a faster growth rate could, *ceteris paribus*, have been expected. However, only in the 1880s, 1900–13, and in the 1970s, did Latin America grow above the OECD average (and the United States).

Decomposing per capita GDP growth using identity (I) provides a more accurate description of Latin American slowdown in the late twentieth century. If low case represents annual rates of variation, per capita income growth can be broke down into the addition of the rates of variation of output per economically active population (EAP), of the activity rate (the EAP ratio to population ages 15 to 64, or potentially active population [PAP]), and of the share of PAP in total population.

$$(1) \quad y_{pc} = \frac{y}{eap} + \frac{eap}{pap} + \frac{pap}{\text{population}}$$

In the 1950s and 1960s, labor productivity overcame per capita GDP growth, making for a declining activity rate and a higher dependency rate (the ratio of population below 15 and above 65 to PAP; table 1.3). Since the 1970s, however, labor productivity lagged behind GDP per head growth but was offset by the rise in the activity rate and by the demographic gift of an increasing share of potentially active population, that, from 1980 onward, constituted the only basis for rising per capita income. The increase in the activity rate was related to the reduction of unemployment and, especially during the nineties, to the incorporation of women into the labor force (Astorga, Bergés, and Fitzgerald 2003, 35).

A further decomposition of labor productivity into physical and human capital per worker and total factor productivity (TFP) is necessary to un-

Table 1.3 Per capita GDP growth and its components in Latin America (%; annual logarithmic growth rates)

	Per capita GDP	GDP per EAP	EAP/PAP	PAP/Population
1950–1960	1.9	2.5	–0.2	–0.3
1960–1970	2.8	3.5	–0.3	–0.1
1970–1980	3.0	1.9	0.5	0.4
1980–1990	–0.7	–1.0	0.0	0.6
1990–2000	1.4	–0.3	0.6	0.6

Sources: See appendix A.

Notes: EAP = economically active population; PAP = potentially active population, that is, population ages 15 to 64.

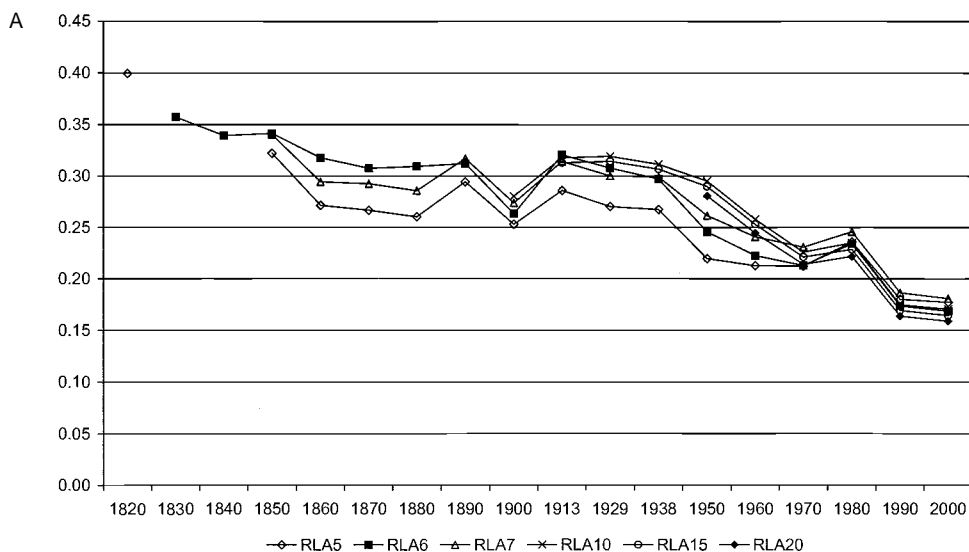


Fig. 1.2 Relative real per capita GDP in Latin America: A, OECD = 1; 1960 U.S. relative prices; B, U.S. = 1; 1960 U.S. relative prices)

derstand the slowing down in workers' efficiency. For the 1980–2000 period, Astorga, Bergés, and Fitzgerald (2003, 34) suggest an average decline in TFP growth together with a deepening fall in capital. A more benign view of TFP growth is offered by André Hofman (2001), who points out that the decline in labor productivity reflects a “strong increase” in labor inputs.¹⁸

So far, the focus of attention has been on Latin America as a whole (figure 1.2), but the region comprises a heterogeneous group of countries that exhibit substantial discrepancies in their factor endowments and long-run performance. The fact that most economic historians only focus their research on a country or just 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.

Growth rates in per capita GDP for major Latin American countries at roughly decadal benchmarks are presented since 1850 in table 1.4. The high variance of growth rates across countries and across different periods is worth highlighting. Argentina, Chile, and Mexico's income per head grew above Latin America's average between 1870 and 1913, while Brazil, Colombia, Peru, and Venezuela achieved it during 1913–38. On the whole,

18. Also, Fajnzylber and Lederman (2000) and Hofman (2000) found a negative TFP growth in the 1980s.

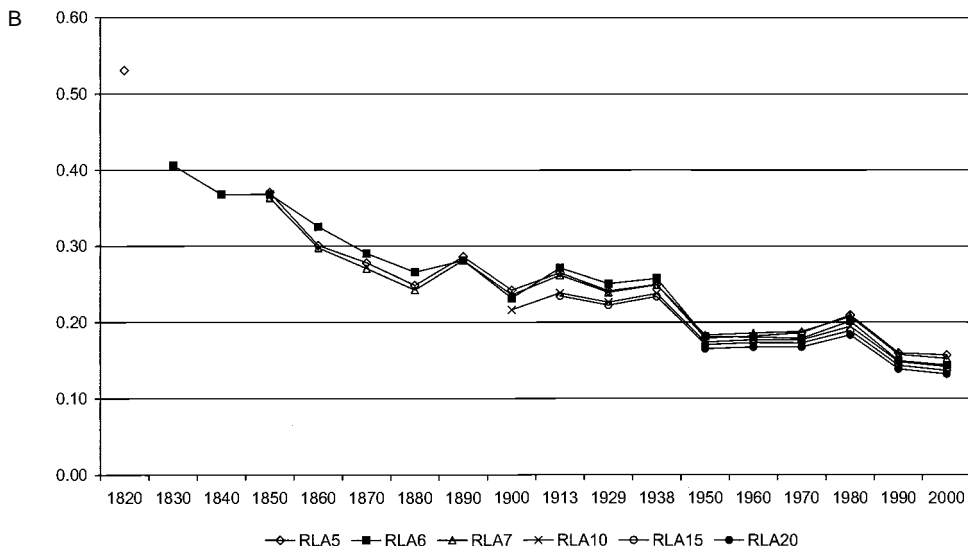


Fig. 1.2 (cont.) Relative real per capita GDP in Latin America: *A*, OECD = 1; 1960 U.S. relative prices; *B*, U.S. = 1; 1960 U.S. relative prices)

during the early phase of modern economic growth Colombia, Peru, Venezuela, and, to a 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 as the best performer in the last two decades of the twentieth century. As countries starting from lower income levels (Colombia, Peru, Venezuela) have grown faster than average, while richer countries (Uruguay, Argentina) have grown at a slower pace over the long run, a pattern of convergence among Latin American nations has been building up over time (see figure 1.3). It is worth noticing that the southern cone countries, and Argentina, in particular, conditioned divergence and convergence trends within the region. In the pre-World War I era Argentina's economic success determined per capita income divergence across countries. Conversely, Argentina's slowing down from 1914 onward is behind the process of convergence observed during the twentieth century.

The comparison with other regions or countries allows 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 widespread interpretations of early failure and moderate success in the twentieth century are derived that way. However, even western European economies fell behind relative to the United States over the nineteenth century (Prados de la Escosura 2000). Moreover, the fact that Latin America's relative position

Table 1.4 Per capita GDP growth in Latin American countries (%)

	Latin American countries (%)														
	Argentina	Brazil	Chile	Colombia	Costa Rica	Cuba	Ecuador	El Salvador	Guatemala	Honduras	Mexico	Nicaragua	Peru	Uruguay	Venezuela
1820-1850	0.8	0.0	1.4								0.1			0.8	
1830-1850	0.8	0.0	2.0			0.6								0.8	2.2
1850-1860	0.8	-0.1	1.7			1.8					-1.3			2.0	-1.3
1860-1870	0.8	0.5	1.8			0.0					1.3			2.0	-1.1
1870-1880	0.8	0.4	3.0			1.7					1.1			0.0	2.4
1880-1890	1.9	0.0	1.1			3.2					4.3			0.8	2.8
1890-1900	-0.8	-0.9	1.2			-2.8					0.4			0.8	-1.5
1900-1913	2.5	2.2	2.3	1.8		5.1	1.6				1.6		1.4	3.1	2.6
1913-1929	0.9	1.4	0.9	3.9	0.1	-2.0	2.2	0.6			0.6		3.3	0.9	6.8
1929-1938	-0.8	1.0	-0.8	1.4	1.9	0.8	0.8	-0.7		1.4	0.4		-5.4	0.1	0.5
1938-1950	1.7	1.6	1.3	1.5	0.4	3.1	3.4	3.8		1.4	3.5		3.7	1.2	4.3
1950-1960	1.1	3.7	1.5	1.6	2.4	-1.0	1.7	1.8		1.1	2.3		2.2	2.9	3.4
1960-1970	3.9	3.1	1.9	2.2	3.3	-0.7	2.0	2.1		1.0	3.4		4.1	2.3	2.4
1970-1980	2.1	5.8	0.9	2.9	3.0	3.2	3.8	0.4		1.3	2.8		3.5	1.7	0.1
1980-1990	-2.4	-0.2	1.2	1.1	-0.1	1.1	-0.3	-1.3		-0.1	-0.1		-5.1	-3.3	-1.9
1990-2000	2.8	0.8	5.0	0.7	0.9	-2.0	-0.4	2.4		0.2	1.7		0.5	2.3	-0.1
1860-1890	1.2	0.3	1.9			1.6					2.2			0.9	1.3
1890-1913	1.0	0.9	1.8			1.7					1.0			2.1	0.8
1913-1938	0.3	1.2	0.3	3.0	0.7	-1.0	1.7	0.2		-0.3	0.5		0.2	2.3	4.5
1913-1950	0.7	1.3	0.6	2.5	0.6	0.3	2.2	1.4		0.3	1.5		1.3	2.0	4.5
1950-1980	2.4	4.2	1.4	2.2	2.9	0.5	2.5	1.4		1.1	2.7		1.0	2.3	2.0
1980-2000	0.2	0.3	3.1	0.9	0.4	-0.5	-0.3	0.6		0.0	0.8		-2.3	-0.5	-1.0
1860-1929	1.1	0.7	1.6			0.8					1.5			1.3	2.4
1860-1938	0.8	0.8	1.4			0.8					1.3			1.2	2.2
1938-1980	2.2	3.4	1.4	2.0	2.2	1.3	2.7	2.1		1.2	2.9		1.7	2.0	2.6
1850-2000	1.1	1.4	1.6			0.8					1.5			1.2	1.7
1850-1980	1.3	1.6	1.4			1.0					1.6			1.3	2.1
1900-2000	1.3	2.1	1.6	2.0		0.9	1.7				1.7			1.3	2.4
1913-2000	1.2	2.1	1.5	2.1	1.4	0.2	1.7	1.2		0.5	1.8	0.4		1.0	2.3
1820-2000	1.1	1.2	1.6			0.8					1.3			1.2	1.7
1830-2000	1.1	1.2	1.7			0.8					1.3			1.2	1.7

Sources: See appendix A.

Notes: Numbers in *italics* are based on estimates. See text for explanation.

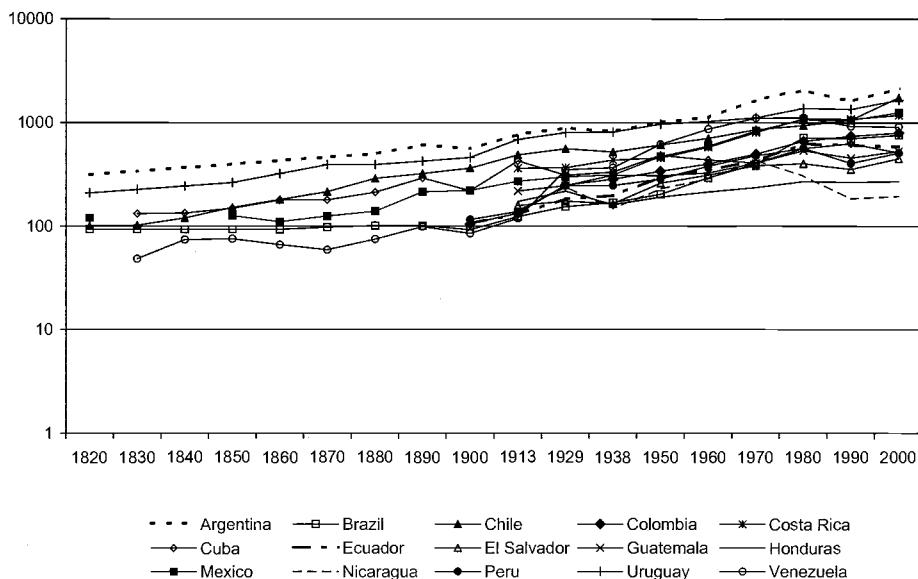


Fig. 1.3 Real per capita GDP in Latin American countries (1960 U.S. relative prices)

to the United States remained mostly unaltered during the twentieth century seems at odds with the catching-up experience in large areas of the periphery. Southern Europe and southeast Asia reduced their gap with the United States significantly after 1950 (Maddison 2003), whereas Latin America only grew faster than the United States in the 1970s. The United States represents, therefore, a questionable yardstick. Thus, alongside the U.S. yardstick, I propose to use a more comprehensive one, the group of advanced countries from the Old and New World that are today part of the OECD.¹⁹

Figure 1.3 and table 1.5 compare the evolution of population-weighted averages of per capita incomes in Latin America and the OECD for different country samples, and the results tend to be robust. Two phases can be depicted. The first one, between mid-nineteenth and mid-twentieth century, shows for Latin America a rather stable relative position, around 30 percent of OECD income per head. A second phase covers the late twentieth century, in which in spite of sustained growth a decline in Latin America's relative position occurred, with the exception of the slight recovery of the 1970s. The fall in the 1980s appears particularly intense, from which

19. This sample includes countries that belonged to the European periphery but that today are part of the core, such as Italy, Ireland, or Spain.

Table 1.5 Relative per capita GDP in Latin America and the OECD (OECD = 1)

	RLA5	RLA6	RLA7	RLA10	RLA15	RLA20
1820	<i>0.40</i>					
1830		<i>0.36</i>				
1840		<i>0.34</i>				
1850	0.32	0.34	0.34			
1860	0.27	0.32	0.29			
1870	0.27	0.31	0.29			
1880	0.26	0.31	0.29			
1890	0.29	0.31	0.32			
1900	0.25	0.26	0.27	0.28		
1913	0.29	0.32	0.31	0.32	0.31	
1925	0.28	0.31	0.31	0.32	0.32	
1929	0.27	0.31	0.30	0.32	0.31	
1933	0.28	0.32	0.31	0.32	0.32	
1938	0.27	0.30	0.30	0.31	0.31	
1950	0.22	0.25	0.26	0.30	0.29	0.28
1955	0.21	0.23	0.24	0.27	0.26	0.26
1960	0.21	0.22	0.24	0.26	0.25	0.24
1965	0.20	0.21	0.23	0.24	0.23	0.22
1970	0.21	0.21	0.23	0.23	0.22	0.21
1975	0.23	0.23	0.25	0.24	0.23	0.23
1980	0.24	0.23	0.25	0.24	0.23	0.22
1985	0.20	0.19	0.21	0.20	0.19	0.19
1990	0.18	0.17	0.19	0.17	0.17	0.16
1995	0.19	0.18	0.19	0.18	0.17	0.17
2000	0.18	0.17	0.18	0.17	0.16	0.16

Sources: See appendix A.

Notes: Numbers in *italics* are based on estimates for most countries. See text for explanation. RLA5 = LA5: OECD7; RLA6 = LA6: OECD10; RLA7 = LA7: OECD14; RLA10 = LA10: OECD20; RLA15 = LA15: OECD21; and RLA20 = LA20: OECD21. See table 1.1 notes for explanations of abbreviations not listed here.

Latin America had not recovered by 2000, when her average income per head relative to OECD was practically half the share it represented in 1950.

When, instead, the comparison is carried out with the United States (figure 1.3 and table 1.6), a decline is observed between 1850 and 1870 (from 36 to 27 percent of the U.S. GDP per head), followed up to 1938 by stability—around one-fourth of the U.S. per capita income. A two-step decline, in 1938–50 and the 1980s, reduced Latin American GDP per head relative to the United States by the end of the twentieth century to just half its share in 1938. These results do not warrant, therefore, the widely held view of Latin America's relative stability in terms of U.S. income throughout the twentieth century.

And what can be conjectured about Latin America's relative position in the early nineteenth century? The outcome is highly sensitive to the inclusion of Coatsworth's (1989, 2003) guesstimates about Mexican perfor-

Table 1.6 Relative per capita GDP in Latin America and the United States (U.S. = 1)

	RLA5	RLA6	RLA7	RLA10	RLA15	RLA20
1820	<i>0.53</i>					
1830		<i>0.41</i>				
1840		<i>0.37</i>				
1850	0.37	0.37	0.36			
1860	0.30	0.33	0.30			
1870	0.28	0.29	0.27			
1880	0.25	0.27	0.24			
1890	0.29	0.28	0.28			
1900	0.24	0.23	0.24	0.22		
1913	0.26	0.27	0.26	0.24	0.23	
1925	0.25	0.25	0.25	0.23	0.23	
1929	0.24	0.25	0.24	0.23	0.22	
1933	0.28	0.29	0.28	0.27	0.26	
1938	0.25	0.26	0.25	0.24	0.23	
1950	0.18	0.18	0.18	0.17	0.17	0.17
1955	0.17	0.17	0.18	0.17	0.17	0.16
1960	0.18	0.18	0.19	0.18	0.17	0.17
1965	0.18	0.17	0.18	0.17	0.17	0.16
1970	0.19	0.18	0.19	0.18	0.17	0.17
1975	0.21	0.20	0.21	0.19	0.19	0.18
1980	0.21	0.20	0.21	0.19	0.19	0.18
1985	0.18	0.17	0.17	0.16	0.16	0.15
1990	0.16	0.15	0.16	0.15	0.14	0.14
1995	0.17	0.16	0.16	0.15	0.15	0.14
2000	0.16	0.14	0.15	0.14	0.14	0.13

Sources: See appendix A.

Notes: Numbers in *italics* are based on estimates for most countries. See text for explanation. See tables 1.5 and 1.1 for explanations of abbreviations.

mance. Thus, population-weighted average income per head in Latin America might have fallen from around half (53 percent) the U.S. income in 1820 to above one third (37 percent) between 1820 and 1850 when a large country as Mexico is taken on board. If, alternatively, Mexico is not considered, a milder contraction appears between 1830 and 1850: from 41 to 37 percent of OECD income. Hence, a significant decline in the relative position of Latin America can be posited only if we accept Coatsworth's conjectures on Mexico's per capita income. The question, then, remains open until further research is carried out for Brazil and Mexico, the largest countries that decisively condition the aggregate results for Latin America.

Latin America's position relative to the OECD group per capita income is decomposed in table 1.7. It can be noticed that labor productivity systematically reaches higher relative levels than GDP per head as a consequence of a lower share of population in working age, which results from

Table 1.7 **Decomposing of Latin America's relative per capita GDP, 1900–1990**

	Per capita GDP					GDP/EAP					EAP/PAP					PAP/Population								
	RLA4	RLA5	RLA9	RLA20	RLA4	RLA5	RLA9	RLA20	RLA4	RLA5	RLA9	RLA20	RLA4	RLA5	RLA9	RLA20	RLA4	RLA5	RLA9	RLA20	RLA4	RLA5	RLA9	RLA20
1900	0.41				0.47				0.94				0.92				0.92				0.92			
1913	0.46	0.43			0.57				0.87				0.90				0.90				0.90			
1925	0.48	0.46			0.60	0.59			0.88	0.87			0.90				0.90				0.90			
1929	0.46	0.45			0.61	0.60			0.84	0.83			0.91				0.91				0.91			
1933	0.47	0.46			0.61	0.60			0.85	0.85			0.90				0.90				0.90			
1938	0.44	0.44	0.31		0.59	0.58	0.40		0.85	0.85	0.90		0.88				0.88				0.88			0.86
1950	0.42	0.42	0.29	0.28	0.52	0.52	0.36	0.34	0.91	0.91	0.93	0.95	0.89				0.89				0.89			0.87
1955	0.37	0.38	0.27	0.26	0.47	0.48	0.34	0.32	0.90	0.90	0.91	0.93	0.88				0.88				0.88			0.86
1960	0.35	0.36	0.26	0.24	0.45	0.46	0.33	0.31	0.89	0.88	0.90	0.92	0.87				0.87				0.87			0.86
1965	0.33	0.34	0.24	0.22	0.43	0.44	0.30	0.28	0.90	0.90	0.91	0.93	0.85				0.85				0.85			0.85
1970	0.31	0.32	0.23	0.21	0.45	0.46	0.30	0.28	0.83	0.83	0.89	0.91	0.84				0.84				0.84			0.85
1975	0.30	0.31	0.24	0.23	0.42	0.42	0.30	0.29	0.86	0.86	0.92	0.92	0.85				0.85				0.85			0.85
1980	0.30	0.30	0.24	0.22	0.41	0.40	0.30	0.28	0.86	0.87	0.92	0.93	0.85				0.85				0.85			0.85
1985	0.25	0.25	0.20	0.19	0.36	0.36	0.25	0.24	0.80	0.80	0.90	0.90	0.86				0.86				0.86			0.86
1990	0.22	0.22	0.17	0.16	0.32	0.31	0.22	0.21	0.79	0.80	0.89	0.90	0.88				0.88				0.88			0.89

Sources: See appendix A.

Notes: EAP = economically active population; PAP = potentially active population, that is, population ages 15 to 64. See tables 1.5 and 1.1 for explanations of abbreviations.

Table 1.8 Dependency rates in Latin America: A comparison with OECD countries

	Dependency rates				Relative dependency rates			
	LA4	LA5	LA9	LA20	RLA4	RLA5	RLA9	RLA20
1850								
1860								
1870								
1880								
1890								
1900	0.634				1.02			
1913	0.745	0.746			1.22	1.22		
1925	0.702	0.706			1.31	1.32		
1929	0.699	0.702			1.29	1.30		
1933	0.700	0.704			1.33	1.34		
1938	0.708	0.711	0.750		1.40	1.41	1.48	
1950	0.734	0.739	0.777	0.780	1.35	1.36	1.43	1.44
1955	0.774	0.782	0.777	0.785	1.38	1.40	1.39	1.40
1960	0.822	0.830	0.836	0.842	1.40	1.42	1.43	1.44
1965	0.857	0.863	0.823	0.834	1.49	1.50	1.43	1.45
1970	0.879	0.883	0.857	0.864	1.55	1.56	1.51	1.52
1975	0.834	0.837	0.790	0.804	1.52	1.53	1.44	1.46
1980	0.783	0.784	0.782	0.792	1.51	1.51	1.51	1.53
1985	0.732	0.733	0.698	0.719	1.50	1.50	1.43	1.47
1990	0.699	0.701	0.674	0.694	1.44	1.44	1.38	1.43

Sources: See appendix A.

Note: See tables 1.5 and 1.1 for explanations of abbreviations.

higher dependency rates, and from a lower activity rate (a feature related to a lower female participation in the labor force). The persistence of high dependency rates in Latin America (table 1.8) hints at the lack of incentives to reduce fertility and to the weak demand of human capital that helped to bring about the demographic transition in OECD countries (Galor 2004).

In sum, modern Latin America experienced sustained growth since the second quarter of the nineteenth century—only brought to a halt during the 1890s, the Great Depression, and, overall, the 1980s. Growth was accompanied by relative backwardness, in particular during the second half of the twentieth century, and especially since 1980. It is true that Latin America fell behind in the early years of independence if she is compared to the core's richest countries, but in order to understand Latin America's long-run economic retardation, the late twentieth century appears a more suitable period to be explored than early independence years.

1.3 Long-Run Intercountry Inequality

A more rigorous assessment of intercountry average income inequality for the large country sample considered, which encompasses most of Eu-

rope, the Americas, and Oceania, can be obtained with the comprehensive measures provided by entropy decomposable indices. Was inequality significantly larger in 2000 than in 1850? Can different phases be distinguished in inequality over time, or, as suggested by Bourguignon and Morrison (2002), for the world, was there a sustained rise in inequality up to 1950 that tended to stabilize thereafter? Did the widening gap between OECD countries (the core) and Latin America (the periphery) discussed in the previous section contribute to the rise in long-term inequality? All are pressing questions that deserve a response.

All measures of inequality between OECD and Latin American countries are simultaneously provided for alternative sets of countries that allows us to test the sensitivity of the results to changes in their national composition.²⁰ Only countries for which data on GDP actually exists are in the sample. Needless to say, the quality and coverage of the estimates show a large variance, and usually fall as one goes back in time.²¹

Population-weighted, MLD (mean logarithmic deviation), and income-weighted, Theil measures of inequality²² are obtained as

$$(4) \quad \text{MLD}_y = \sum p_i \ln\left(\frac{p_i}{y_i}\right)$$

$$(5) \quad \text{Theil}_y = \sum y_i \ln\left(\frac{y_i}{p_i}\right),$$

with p_i and y_i representing the shares of country i in total (OECD and Latin America) population and GDP.

The detailed results for the alternative country samples of OECD and Latin American countries are presented in the appendix (tables 1A.1–1A.4). In addition to inequality levels, yearly rates of inequality reduction—in other words, the speed at which inequality falls (positive sign) or rises (negative sign)—are shown at the bottom of each table.

A rise in per capita income inequality over the long run is observed for all the alternative Latin America and OECD countries sets (at an annual rate of around 1 percent over 1850–2000). It can be noticed that when measured with the MLD index, which gives more weight to changes at the bottom of the distribution, a larger inequality increase and level is obtained.

20. The more comprehensive country the sample, the shorter its time span. The countries included in each group for real income inequality estimates are listed at the bottom of tables 1A.1–1A.4.

21. But neither heroic assumptions are introduced in an attempt to widen the geographical coverage of the sample, nor imaginative solutions for missing countries, such as assuming identical levels of income or growth rates as their neighbors, are employed.

22. Mean Logarithmic Deviation (MLD) is also known as Bourguignon's L, Theil's population-weighted index, and GE(0). Theil is short for Theil's income weighted index of inequality, also known as GE(1).

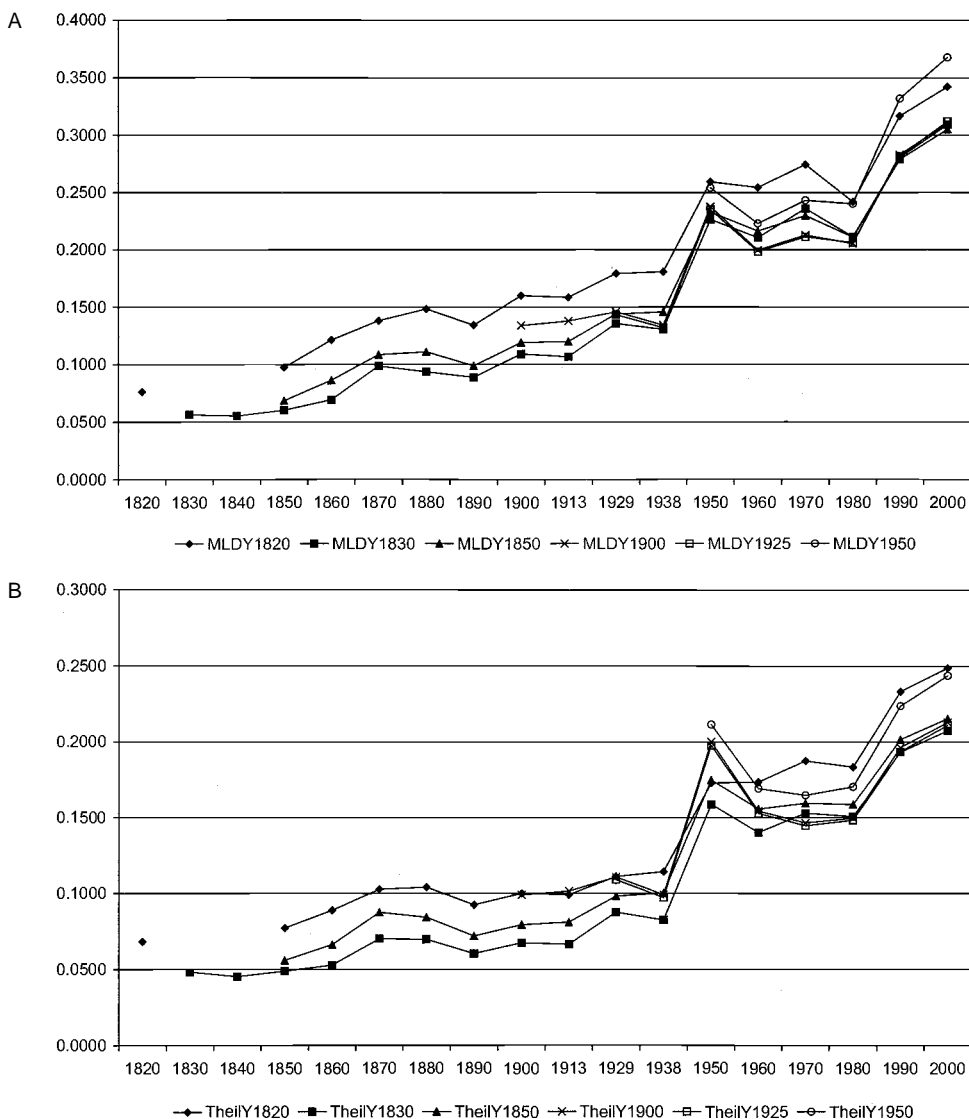


Fig. 1.4 Inter-country inequality of real per capita GDP in Latin America and the OECD: *A*, MLD indices; *B*, Theil indices

Moreover, the more comprehensive the country coverage, the deeper the inequality (figure 1.4).²³

Two breaks in 1938 and 1980 allow us to identify three distinctive phases in the evolution of intercountry inequality. After a rapid increase in in-

23. Alternative MLD and Theil indices are computed for country samples starting at different dates; thus, MLD1870 means that the computed MLD index covers the period from 1870 to 2000.

equality during 1850–70, it rose at a steady pace up to 1938, in which episodes of shrinking inequality took place in the 1880s and the 1930s. The disruption brought about by World War II provoked a dramatic upsurge in inequality, and although it fell during the following three decades, its level remained high. A major rise occurred again with the 1980s debt crisis in Latin America, which reached up to the end of the twentieth century. Inequality shifted upward during 1938–50 and in the 1980s at yearly rates of 4.8 and 3.2 percent, reaching levels of 0.24 and 0.36 for MLD in 1950 and 1990, respectively. It is worth recalling that it is in these two periods when the gap in per capita income widened between Latin America and the OECD group.

The nineteenth and twentieth centuries witnessed population and GDP growth that proceeded with different intensity across different countries. To what extent did the variance in their rates of growth have an impact on income inequality? I have simulated the yearly rates at which, other things being equal, inequality would have fallen if all countries in the sample had enjoyed identical population (or per capita income) growth. The actual way of carrying out the simulation was to compute weighted inequality measures in which, *ceteris paribus*, population (or per capita income) remained unchanged over each epoch. This amounts to allocating identical growth rates to population (or per capita income) for all countries in the sample. The simulation exercise has been carried out for each of the three epochs established in the evolution of inequality: 1870–1938, 1938–80, and 1980–2000.

Table 1.9 offers the results of simulating what would have happened in our country sample had the variance of population (or income) growth been zero. Without a significant variance in population and per capita income growth, the rise in inequality would have been larger over 1870–1938. During 1938–80, the variance in per capita GDP growth prevented a larger rise in inequality, while the population growth variance contributed to increasing it. Both population and per capita income growth differentials had a part in inequality shifting upward during the last two decades of the twentieth century.

A glance at the simulations for OECD countries (table 1.10) shows that per capita income catching up was a main instrument in the decline in intercountry inequality, especially during the Golden Age. Prior to World War I, discrepancies in population growth mattered for the decline in inequality, suggesting that higher fertility and dependency rates in the New World might have contributed to checking inequality during the first phase of globalization.

When we focus on simulations for Latin America (table 1.11) it emerges that, over 1870–1913, differences in the pace of per capita GDP growth across the region contributed to rising inequality, associated to the economic progress in the areas of new settlement (Argentina and Uruguay), while discrepancies in population growth (in which immigration mattered)

Table 1.9 Assessing the impact of population and per capita GDP growth differences on inter-country inequality: Yearly rates of inequality reduction in OECD and Latin American countries

	Counterfactual zero variance in:			Counterfactual zero variance in:			Counterfactual zero variance in:		
	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth
<i>MLD indices</i>									
1870-1929	-0.48	-1.60	-1.65						
1870-1938	-0.42	-1.54	-1.40						
1938-1980	-0.85	-1.99	-0.51	-0.96	-2.01	-0.49			
1980-2000	-1.94	-0.91	-0.64	-2.01	-0.93	-0.66	-2.13	-1.05	-1.20
1870-1913	-0.30	-1.00	-1.05						
1900-1950	-1.28	-2.15	-2.41	-1.20	-1.94	-1.78			
1913-1938	-0.41	-1.26	-0.69	0.25	-1.36	0.13			
1913-1950	-1.64	-1.59	-1.93	-1.45	-1.76	-1.56			
1950-1980	0.50	-1.87	1.09	0.65	-1.78	1.35	0.19	-1.60	2.33
1950-2000	-0.48	-1.48	0.40	-0.42	-1.44	0.54	-0.74	-1.38	0.92
<i>Theil indices</i>									
1870-1929	-0.19	-1.76	-1.87						
1870-1938	-0.17	-1.67	-1.52						
1938-1980	-1.01	-1.51	-0.75	-0.93	-1.67	-0.72			
1980-2000	-1.64	-0.82	-0.69	-1.73	-0.69	-0.76	-1.79	-0.75	-1.17
1870-1913	0.11	-0.89	-1.37						
1900-1950	-1.47	-2.26	-2.63	-1.45	-1.98	-2.22			
1913-1938	-0.45	-1.11	-0.76	0.27	-1.20	0.10			
1913-1950	-1.94	-1.24	-2.21	-1.79	-1.53	-2.02			
1950-1980	0.61	-1.51	1.05	1.13	-1.44	1.57	0.72	-1.11	2.45
1950-2000	-0.29	-1.23	0.35	-0.01	-1.14	0.64	-0.28	-0.97	1.00

Sources: See text.

Table 1.10 Assessing the impact of population and per capita GDP growth differences on inter-country inequality: Yearly rates of inequality reduction in OECD countries

	Counterfactual zero variance in:			Counterfactual zero variance in:			Counterfactual zero variance in:		
	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth
<i>MLD indices</i>									
1870-1929	0.41	-1.77	-2.84						
1870-1938	0.40	-1.65	-2.48						
1938-1980	1.17	-1.07	-0.85	1.92	-1.04	-1.19			
1980-2000	0.01	-0.71	-0.69	-0.33	0.12	-0.66	-0.22	0.83	-1.93
1870-1913	0.83	-0.70	-2.13						
1900-1950	-2.07	-2.47	-3.41	-1.97	-1.94	-3.55			
1913-1938	-0.24	-0.90	-1.11	1.53	-1.04	-0.48			
1913-1950	-3.05	-1.00	-2.48	-2.40	-1.44	-2.57			
1950-1980	5.20	-1.01	0.94	6.92	-0.55	1.11	6.85	0.51	4.05
1950-2000	3.12	-0.89	0.29	4.02	-0.28	0.40	4.02	0.64	1.66
<i>Theil indices</i>									
1870-1929	0.59	-2.02	-2.64						
1870-1938	0.65	-1.88	-2.21						
1938-1980	0.96	-0.91	-1.14	1.81	-1.07	-1.39			
1980-2000	0.00	-0.69	-0.73	-0.29	-0.10	-0.73	-0.19	0.83	-1.90
1870-1913	1.06	-0.69	-2.11						
1900-1950	-2.00	-2.65	-3.28	-1.94	-2.16	-3.48			
1913-1938	-0.01	-0.96	-1.01	1.40	-1.06	-0.22			
1913-1950	-2.97	-0.87	-2.65	-2.46	-1.33	-2.81			
1950-1980	5.00	-1.00	0.84	6.74	-0.74	1.34	6.67	0.66	3.85
1950-2000	3.00	-0.88	0.21	3.93	-0.48	0.51	3.93	0.73	1.55

Sources: See text.

Table 1.11 Assessing the impact of population and per capita GDP growth differences on inter-country inequality: Yearly rates of inequality reduction in Latin American countries

	Counterfactual zero variance in:			Counterfactual zero variance in:			Counterfactual zero variance in:		
	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth	Actual value	Per capita GDP growth	Population growth
1870-1929	-0.84	0.47	-1.52						
1870-1938	-0.46	0.27	-1.12						
1938-1980	2.73	-0.92	2.86	2.31	-0.58	3.18	-1.27	-0.47	-0.87
1980-2000	-0.36	-0.46	2.02	-0.25	-0.45	1.24			
1870-1913	-1.29	0.95	-1.99						
1900-1950	0.22	-0.25	-0.05	0.38	-0.27	0.26			
1913-1938	0.97	-0.89	0.37	1.37	-0.68	0.99			
1913-1950	0.67	-0.80	0.82	0.92	-0.58	1.14			
1950-1980	3.80	-1.05	3.30	3.25	-0.66	3.88	1.94	-0.69	1.63
1950-2000	2.14	-0.81	2.79	1.85	-0.58	2.82	0.66	-0.60	0.63
				<i>MLD indices</i>					
1870-1929	-0.55	0.87	-1.73						
1870-1938	-0.23	0.62	-1.32						
1938-1980	2.55	-1.17	3.01	2.17	-0.82	3.31	-0.71	-0.65	-0.31
1980-2000	-0.14	-0.54	1.95	-0.05	-0.53	1.71			
1870-1913	-0.89	1.41	-2.13						
1900-1950	0.28	-0.06	-0.38	0.45	-0.08	-0.03			
1913-1938	0.91	-0.76	0.08	1.27	-0.55	0.62			
1913-1950	0.77	-0.74	0.65	1.00	-0.52	0.99			
1950-1980	3.38	-1.36	3.48	2.86	-0.95	3.92	2.00	-1.14	2.24
1950-2000	1.97	-1.03	2.87	1.70	-0.78	3.04	0.92	-0.94	1.22
				<i>Theil indices</i>					

Sources: See text.

prevented a larger increase. During most of the twentieth century (1913–80) differences in economic growth contributed to reducing inequality, as a local process of convergence among Latin American countries was taking place (as the southern cone and, especially, Argentina, was experiencing a relative decline). After 1980, discrepancies in growth contributed to an increase in inequality, as not all countries reacted similarly after the debt crisis.

In sum, differentials in population growth, mostly stemming from Latin America's late demographic transition, represented an obstacle to reducing inequality in the OECD and Latin America country sample over 1938–2000. Such a finding is in conflict with Bourguignon and Morrison's (2002) contention that population growth rates are not associated with significant changes in world income distribution. In turn, differences in economic growth rates within Latin America help explain local convergence over 1913–80.

Another way to look at inequality trends is to decompose OECD and Latin American weighted inequality into the share attributable to distribution changes within each region and the share that stems from differences among regions. I have followed Theil (1979, 1989) in decomposing aggregate inequality into within-regions and between-regions inequality. Within-regions inequality is obtained by adding up the results of weighting each region's inequality measure by its population share, in the case of MLD, and by its income share in the case of Theil. Between-regions inequality is, then, obtained as the difference between total (OECD and Latin America) inequality and the computed within-regions inequality.

In figure 1.5 one can observe that in within-regions inequality a moderate rise occurred in MLD up to 1929, while a slight decline happened in the case of Theil, followed in both cases by the dramatic rise up to 1950 and a decline during the Golden Age that led to stability for the rest of the century (although a rise since 1990 is noticeable for MLD). Figure 1.6 shows, in turn, that between-regions inequality—that is, between OECD countries and Latin America—is a smoothed replica of total inequality for both MLD and Theil. It appears, then, that the main element underlying the observed increase in overall inequality was the deepening gap between OECD countries and Latin America.

When inequality within each region is examined, OECD countries exhibit (figure 1.7) a sustained decline in inequality since 1870, only interrupted by the upsurge resulting from World War II and its aftermath, and shadows closely the trend in within-regions inequality. Actually, when viewed in the long run, the inequality decline during the Golden Age is to a large extent the recovery of the level achieved prior to World War II.

Two clear trends emerged in inequality within Latin America (figure 1.8): a steep rise prior to 1914, followed by a sustained decline thereafter that seems to reverse since 1990, with the final result of similar levels of in-

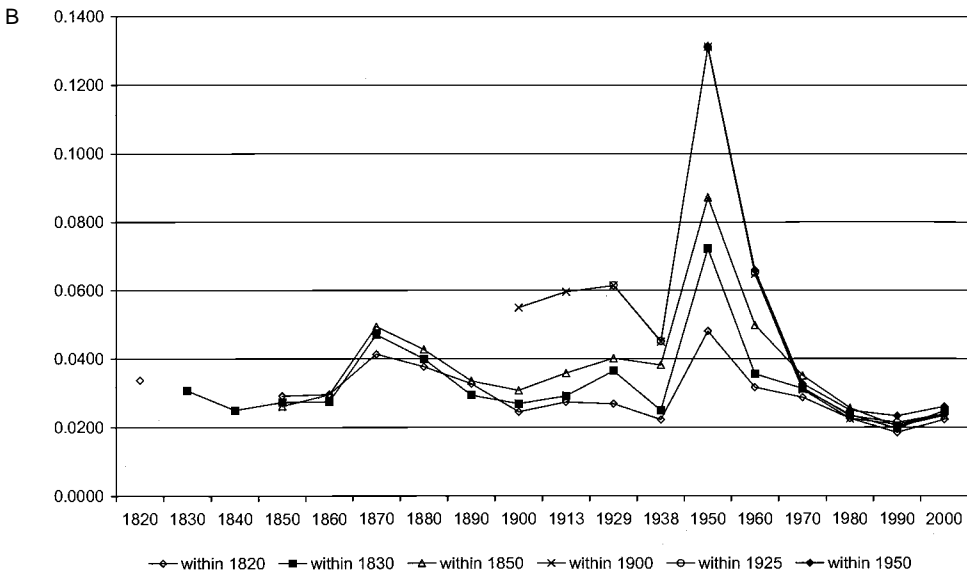
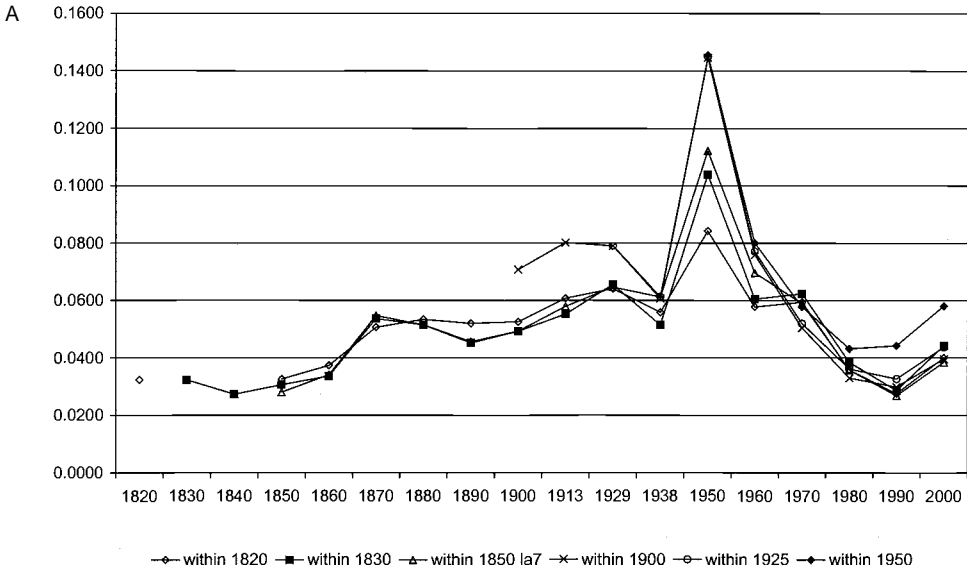


Fig. 1.5 Within-regions inequality of real per capita GDP in Latin America and the OECD: A, MLD indices; B, Theil indices

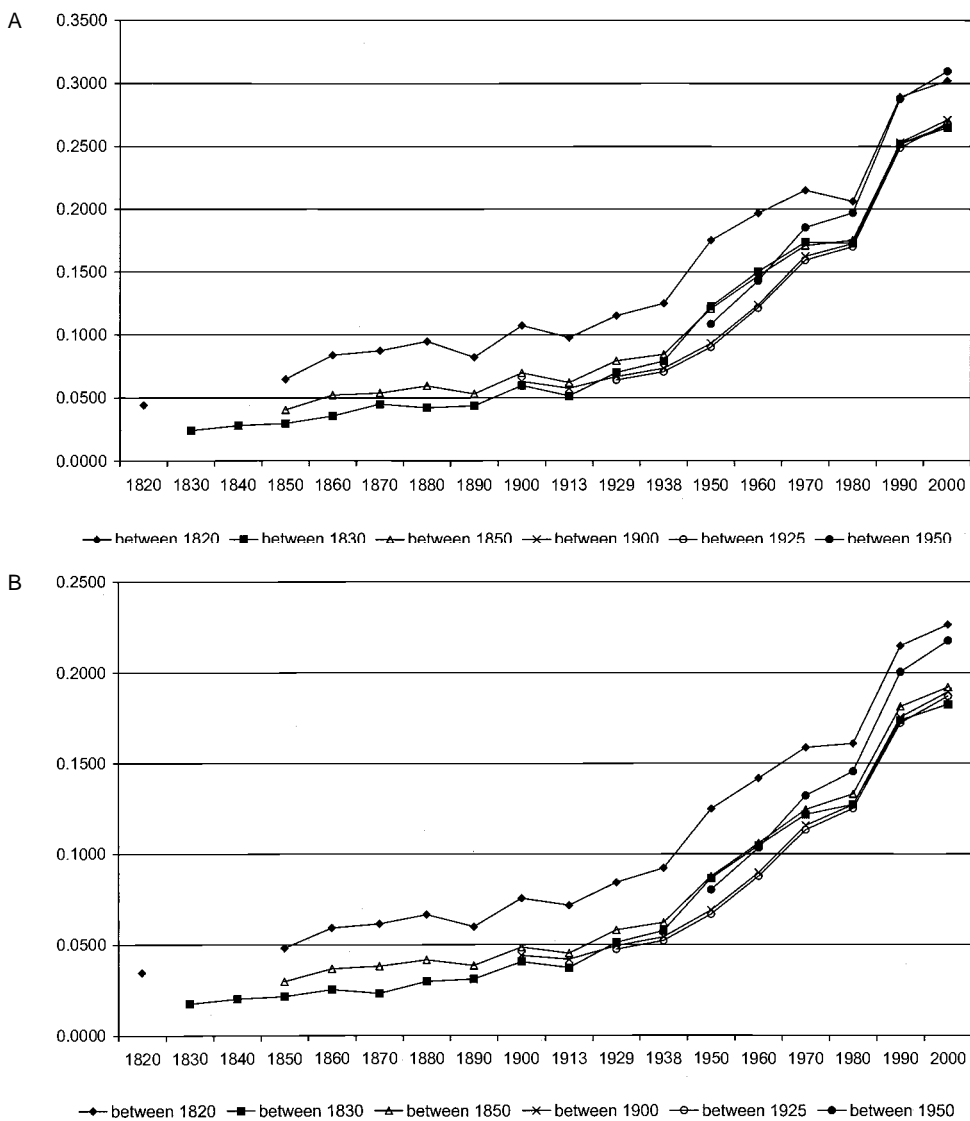


Fig. 1.6 Between-regions inequality of real per capita GDP in Latin America and the OECD: *A*, MLD indices; *B*, Theil indices

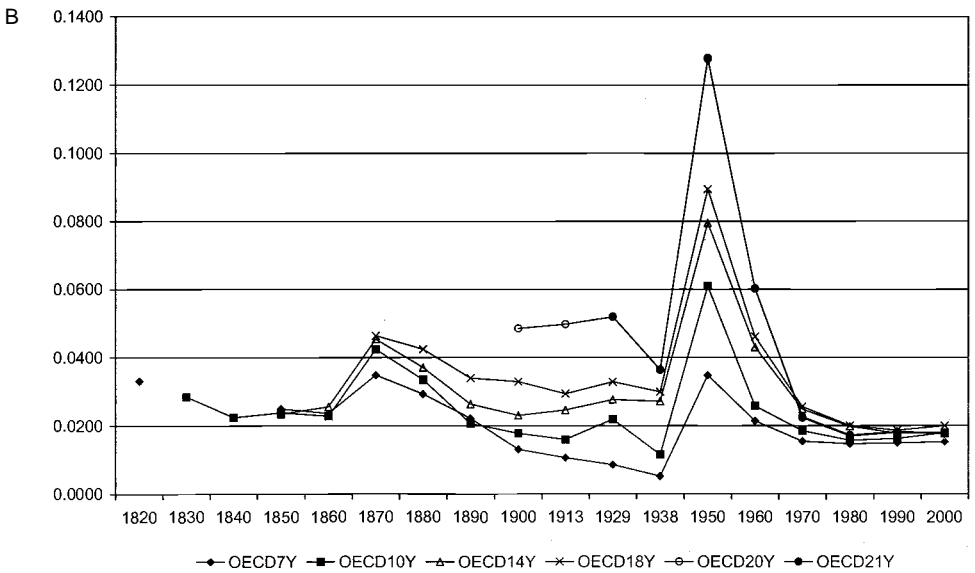
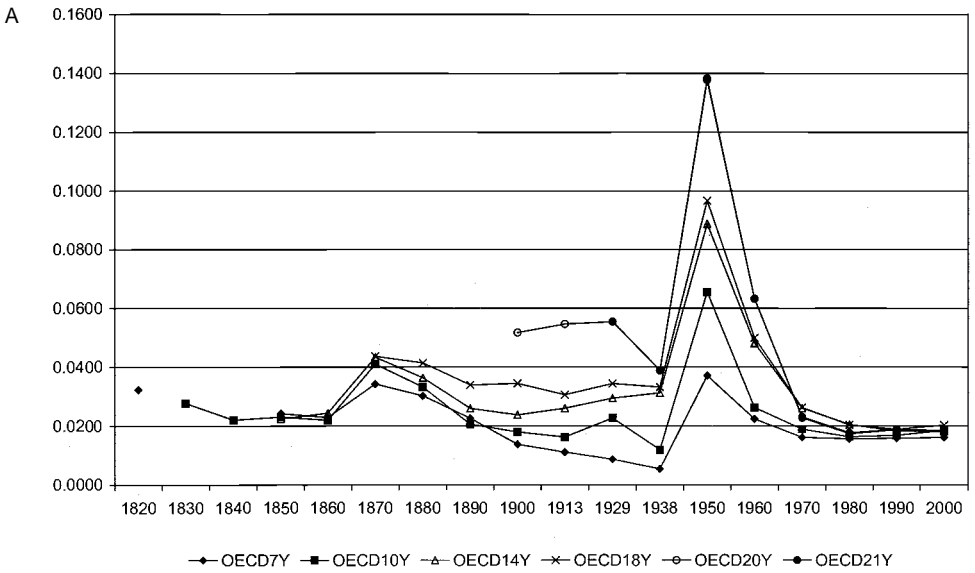


Fig. 1.7 Inter-country inequality of real per capita GDP in the OECD: A, MLD indices; B, Theil indices

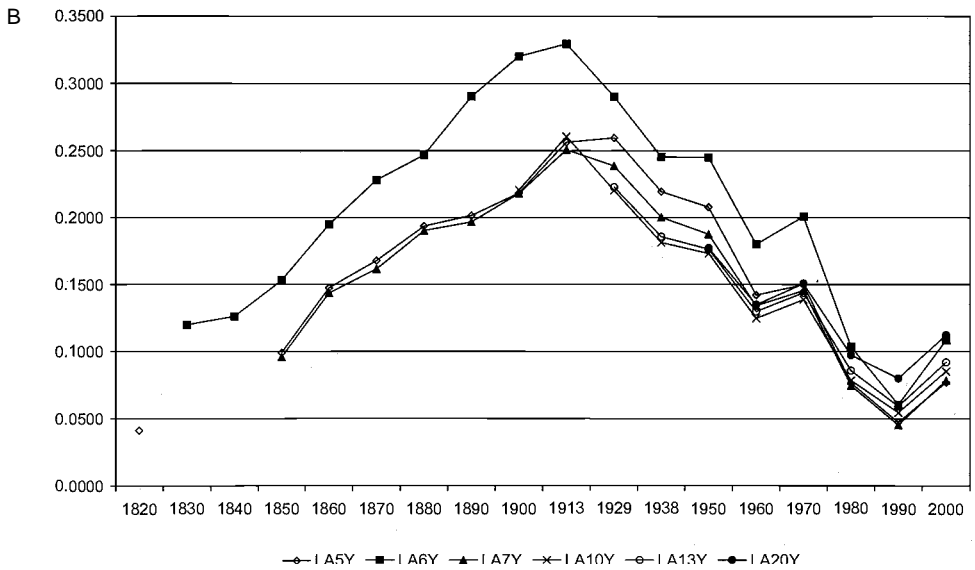
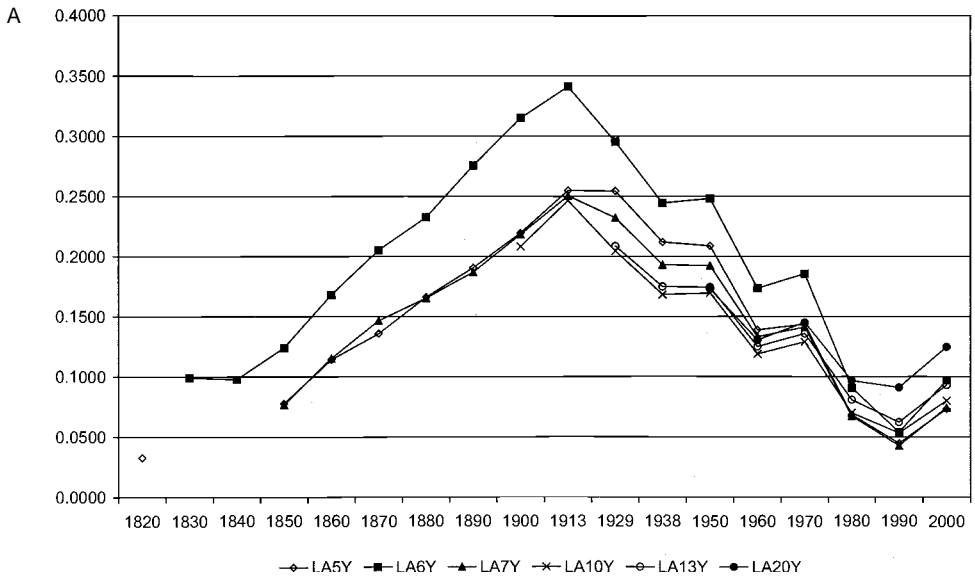


Fig. 1.8 Inter-country inequality of real per capita GDP in Latin America:
A, MLD indices; *B*, Theil indices

equality levels to those prevailing by mid-nineteenth century. Inequality across Latin American countries increased during the first phase of globalization, as countries reacted very differently, depending on their exposure to international commodity and factor movements. Argentina's economic success determined per capita income divergence across countries. Deglobalization in the interwar years spawned a reduction in across-country inequality. The long-run fall in twentieth century inequality, in spite of a new phase of globalization after 1950, is associated with a process of convergence within Latin America, as lower-income countries achieved faster growth than richer ones—among which Argentina's collapse had a major part. Argentina's slowing down from World War I onward contributed to the process of local convergence.

To sum up, the long-run increase in inequality is mainly due to the widening gap between average incomes between OECD countries and Latin America that peaked in the late twentieth century. It is then when Latin America appears to have fallen behind. A process of convergence within Latin America paralleled its divergence with respect to the advanced countries.

1.4 Concluding Remarks and Research Agenda

A long-term rise in real per capita income inequality for a partial sample of the world that includes Latin America and OECD countries is confirmed. The deepening gap and subsequent polarization between the OECD group and Latin America was the major factor behind the observed increase. National differences in population growth, largely a consequence of the late demographic transition in Latin America, held up a fall in inequality during the twentieth century. This finding contradicts the benign view of a rise in inequality up to the mid-twentieth century that stabilized thereafter, as proposed by Bourguignon and Morrison (2002) and Sala i Martín (2002).

These results provide an answer to the question of when did Latin America fall behind. It is true that when compared to the select club of the core's richest countries that experienced sustained per capita income growth prior to 1850, Latin America fell behind in the early years of independence—as did most countries at the time. However, the empirical findings presented here seriously challenge conventional assessments that locate Latin American economic retardation in the early 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-like institutions would have cast a higher growth rate in Latin America. However, blaming Latin America's

long-term backwardness on the post-colonial epoch seems far-fetched. Contrary to a widely held view, Latin America's retardation appears to be a late-twentieth century phenomenon that should be explored if we want to understand why Latin America remains a backward region in a global world.

Ascertaining why Latin America's retardation occurred in the late twentieth century provides a research agenda. Why, during the period of fastest growth in Latin America—1938–80—did Latin America fall behind OECD countries, unlike southwestern Europe and East Asia? Is it misleading, as claimed by Astorga, Bergés, and Fitzgerald (2003), to associate import-industrialization strategies to faltering performance, as, when such policies were implemented, growth intensified and welfare improved? Were neoliberal policies the causes of post-1980 economic stagnation and relative decline? Or was it because of poor institutional quality and lack of government credibility? These are among the pressing questions that will require further research.

Appendix A

Sources for GDP per Capita Volume Indices for the OECD and Latin America

GDP volume or quantity indices and population, potentially active population (PAP), and economically active population (EAP) data for OECD countries come from the national sources stated in Prados de la Escosura (2000), Maddison (2003), Mitchell (1992, 1993, 1994), and the League of Nations and UN yearbooks. Data for twentieth-century Latin American GDP volumes and total and potentially active population and economically active population comes from Astorga and Fitzgerald (1998), Astorga, Bergés, and Fitzgerald (2004), The Oxford Latin American Economic History Database (OxLAD), The Latin American Centre, Oxford University, <http://oxlad.thedesignfly.net/>, and Mitchell (1993). Otherwise, the sources are:

Argentina: Della Paolera, Taylor, and Bózzoli (2003), GDP, 1884–1990, spliced with Cortés Conde and Harriague (1994) for 1875–84. I assumed the level for 1870 was identical to that of 1875. Newland and Poulson (1998) estimated Argentina's littoral agricultural output per head grew at 2 percent per year over 1825–65. I have assumed that this sector was representative of the littoral's economy as a whole, and that no per capita growth occurred in Argentina's interior provinces, reaching a per

capita GDP rate of growth of 0.8 percent. Population data comes from Newland (1998).

Brazil: Goldsmith (1986), 1850–1980.

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

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

Cuba: Fraile, Salvucci, and Salvucci (1993) and Santamaría (2005).

México: Instituto Nacional de Estadística Geográfica e Informática (INEGI; 1995), 1850–1990. GDP figures from 1845 to 1896, interpolated from the original benchmark estimates. Following Coatsworth (2003), I accepted a mild rise in GDP per capita at 0.2 percent per year over 1820–45.

Uruguay: Bértola and Associates (1998), since 1870. I have assumed that Uruguay evolved as did Argentina's littoral between 1850 and 1870, as Argentina as a whole over 1820–50.

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 1920–25, the latter taken from OxLAD.

Table 1A.1

Inter-country inequality in per capita GDP, 1850–2000

	MLD indices			Population shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1850	0.0685	0.0224	0.0766	0.8974	0.1026	0.0280	0.0405
1860	0.0863	0.0244	0.1152	0.8933	0.1067	0.0341	0.0522
1870	0.1086	0.0433	0.1465	0.8898	0.1102	0.0547	0.0539
1880	0.1110	0.0363	0.1654	0.8826	0.1174	0.0515	0.0595
1890	0.0987	0.0259	0.1869	0.8780	0.1220	0.0456	0.0532
1900	0.1190	0.0237	0.2184	0.8689	0.1311	0.0493	0.0698
1913	0.1199	0.0260	0.2505	0.8578	0.1422	0.0579	0.0620
1913	0.1272	0.0259	0.2505	0.8482	0.1518	0.0600	0.0672
1925	0.1337	0.0304	0.2149	0.8340	0.1660	0.0610	0.0727
1929	0.1439	0.0294	0.2322	0.8266	0.1734	0.0646	0.0793
1933	0.1284	0.0192	0.1939	0.8207	0.1793	0.0506	0.0778
1938	0.1456	0.0312	0.1931	0.8149	0.1851	0.0612	0.0844
1950	0.2329	0.0888	0.1923	0.7735	0.2265	0.1122	0.1207
1955	0.2281	0.0653	0.1623	0.7599	0.2401	0.0886	0.1395
1960	0.2164	0.0481	0.1331	0.7471	0.2529	0.0696	0.1468
1965	0.2326	0.0350	0.1565	0.7316	0.2684	0.0676	0.1650
1970	0.2299	0.0260	0.1411	0.7139	0.2861	0.0590	0.1710
1975	0.2059	0.0196	0.0846	0.6962	0.3038	0.0393	0.1666
1980	0.2110	0.0205	0.0673	0.6741	0.3259	0.0357	0.1752
1985	0.2491	0.0231	0.0475	0.6610	0.3390	0.0314	0.2177
1990	0.2790	0.0182	0.0428	0.6509	0.3491	0.0268	0.2522
1995	0.2812	0.0170	0.0666	0.6496	0.3504	0.0344	0.2469
2000	0.3051	0.0181	0.0743	0.6389	0.3611	0.0384	0.2667
<i>Annual rates of inequality reduction (%)</i>							
1850–1913	-0.89	-0.23	-1.88			-1.15	-0.67
1870–1913	-0.23	1.19	-1.25			-0.13	-0.33
1900–1950	-1.34	-2.64	0.25			-1.65	-1.10
1913–1938	-0.54	-0.74	1.04			-0.08	-0.91
1913–1950	-1.63	-3.32	0.71			-1.69	-1.58
1950–1980	0.33	4.89	3.50			3.82	-1.24
1938–1980	-0.88	1.01	2.51			1.28	-1.74
1980–2000	-1.84	0.61	-0.50			-0.36	-2.10
1950–2000	-0.54	3.18	1.90			2.14	-1.58
<hr/>							
	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1850	0.0559	0.0234	0.0958	0.9625	0.0375	0.0262	0.0297
1860	0.0663	0.0256	0.1435	0.9660	0.0340	0.0296	0.0367
1870	0.0876	0.0454	0.1614	0.9650	0.0350	0.0494	0.0382
1880	0.0844	0.0371	0.1903	0.9634	0.0366	0.0427	0.0417
1890	0.0721	0.0263	0.1967	0.9578	0.0422	0.0335	0.0385
1900	0.0794	0.0230	0.2180	0.9603	0.0397	0.0308	0.0486

(continued)

Table 1A.1 (continued)

	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1913	0.0811	0.0246	0.2506	0.9505	0.0495	0.0358	0.0453
1913	0.0853	0.0243	0.2506	0.9475	0.0525	0.0362	0.0491
1925	0.0930	0.0286	0.2162	0.9418	0.0582	0.0395	0.0535
1929	0.0982	0.0276	0.2386	0.9407	0.0593	0.0401	0.0581
1933	0.0876	0.0178	0.2078	0.9366	0.0634	0.0298	0.0577
1938	0.1003	0.0271	0.2002	0.9363	0.0637	0.0382	0.0622
1950	0.1749	0.0796	0.1876	0.9289	0.0711	0.0872	0.0876
1955	0.1666	0.0594	0.1617	0.9288	0.0712	0.0667	0.1000
1960	0.1557	0.0430	0.1342	0.9246	0.0754	0.0498	0.1059
1965	0.1607	0.0328	0.1569	0.9230	0.0770	0.0424	0.1183
1970	0.1595	0.0248	0.1455	0.9153	0.0847	0.0350	0.1244
1975	0.1507	0.0189	0.0934	0.9033	0.0967	0.0261	0.1246
1980	0.1587	0.0198	0.0745	0.8938	0.1062	0.0256	0.1331
1985	0.1853	0.0223	0.0517	0.9029	0.0971	0.0252	0.1602
1990	0.2016	0.0178	0.0452	0.9091	0.0909	0.0203	0.1814
1995	0.2005	0.0167	0.0711	0.9066	0.0934	0.0218	0.1788
2000	0.2154	0.0178	0.0783	0.9072	0.0928	0.0234	0.1920
<i>Annual rates of inequality reduction (%)</i>							
1850–1913	–0.59	–0.08	–1.53			–0.50	–0.67
1870–1913	0.18	1.42	–1.02			0.75	–0.40
1900–1950	–1.58	–2.48	0.30			–2.09	–1.18
1913–1938	–0.65	–0.45	0.90			–0.22	–0.94
1913–1950	–1.94	–3.21	0.78			–2.38	–1.56
1950–1980	0.32	4.64	3.08			4.09	–1.39
1938–1980	–1.09	0.75	2.35			0.95	–1.81
1980–2000	–1.53	0.53	–0.25			0.45	–1.83
1950–2000	–0.42	3.00	1.75			2.63	–1.57

Sources: See text.

Notes: **Boldface** indicates interwar borders. Latin America (LA7) is comprised of Argentina, Brazil, Chile, Cuba, Mexico, Uruguay, and Venezuela. OECD (14) is comprised of Australia, Austria, Belgium, Canada, Denmark, France, Germany, the Netherlands, Norway, Portugal, Spain, Sweden, the United Kingdom, and the United States.

Table 1A.2

Inter-country inequality in per capita GDP, 1900–2000

	MLD indices			Population shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1900	0.1338	0.0517	0.2084	0.8783	0.1217	0.0707	0.0630
1913	0.1377	0.0546	0.2465	0.8666	0.1334	0.0802	0.0575
1913	0.1440	0.0569	0.2465	0.8602	0.1398	0.0834	0.0605
1925	0.1366	0.0512	0.1959	0.8478	0.1522	0.0732	0.0634
1929	0.1457	0.0554	0.2045	0.8417	0.1583	0.0790	0.0667
1933	0.1184	0.0280	0.1679	0.8368	0.1632	0.0508	0.0676
1938	0.1341	0.0388	0.1683	0.8311	0.1689	0.0607	0.0734
1950	0.2377	0.1383	0.1695	0.7975	0.2025	0.1446	0.0931
1955	0.2198	0.0995	0.1427	0.7850	0.2150	0.1088	0.1111
1960	0.1996	0.0632	0.1188	0.7717	0.2283	0.0759	0.1237
1965	0.2105	0.0412	0.1389	0.7561	0.2439	0.0650	0.1455
1970	0.2128	0.0228	0.1288	0.7393	0.2607	0.0504	0.1624
1975	0.1966	0.0176	0.0825	0.7225	0.2775	0.0356	0.1610
1980	0.2054	0.0173	0.0699	0.7026	0.2974	0.0330	0.1725
1985	0.2461	0.0205	0.0528	0.6887	0.3113	0.0306	0.2156
1990	0.2830	0.0187	0.0532	0.6773	0.3227	0.0298	0.2532
1995	0.2838	0.0183	0.0691	0.6722	0.3278	0.0349	0.2488
2000	0.3106	0.0185	0.0800	0.6581	0.3419	0.0395	0.2711
<i>Annual rates of inequality reduction (%)</i>							
1900–1950	–1.15	–1.97	0.41			–1.43	–0.78
1913–1938	0.28	1.53	1.53			1.27	–0.77
1913–1950	–1.36	–2.40	1.01			–1.49	–1.16
1950–1980	0.49	6.92	2.96			4.93	–2.06
1938–1980	–1.02	1.92	2.09			1.45	–2.03
1980–2000	–2.07	–0.33	–0.68			–0.91	–2.26
1950–2000	–0.54	4.02	1.50			2.59	–2.14
	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1900	0.0990	0.0485	0.2206	0.9626	0.0374	0.0549	0.0441
1913	0.1015	0.0497	0.2605	0.9534	0.0466	0.0596	0.0420
1913	0.1060	0.0515	0.2605	0.9511	0.0489	0.0617	0.0442
1925	0.1042	0.0486	0.2080	0.9453	0.0547	0.0573	0.0469
1929	0.1107	0.0519	0.2202	0.9433	0.0567	0.0614	0.0494
1933	0.0865	0.0268	0.1861	0.9409	0.0591	0.0362	0.0503
1938	0.0991	0.0363	0.1813	0.9405	0.0595	0.0449	0.0542
1950	0.2001	0.1280	0.1731	0.9303	0.0697	0.1312	0.0689
1955	0.1783	0.0939	0.1480	0.9313	0.0687	0.0976	0.0807
1960	0.1543	0.0602	0.1247	0.9291	0.0709	0.0647	0.0895
1965	0.1518	0.0406	0.1454	0.9291	0.0709	0.0480	0.1038
1970	0.1465	0.0223	0.1387	0.9262	0.0738	0.0309	0.1156
1975	0.1412	0.0174	0.0936	0.9163	0.0837	0.0238	0.1175

(continued)

Table 1A.2 (continued)

	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1980	0.1496	0.0170	0.0784	0.9095	0.0905	0.0225	0.1271
1985	0.1765	0.0199	0.0574	0.9174	0.0826	0.0230	0.1535
1990	0.1964	0.0181	0.0544	0.9231	0.0769	0.0208	0.1755
1995	0.1968	0.0177	0.0740	0.9192	0.0808	0.0222	0.1746
2000	0.2129	0.0180	0.0851	0.9186	0.0814	0.0234	0.1895
<i>Annual rates of inequality reduction (%)</i>							
1900–1950	-1.41	-1.94	0.48			-1.74	-0.89
1913–1938	0.27	1.40	1.45			1.27	-0.81
1913–1950	-1.72	-2.46	1.10			-2.04	-1.20
1950–1980	0.97	6.74	2.64			5.87	-2.04
1938–1980	-0.98	1.81	2.00			1.64	-2.03
1980–2000	-1.76	-0.29	-0.41			-0.20	-2.00
1950–2000	-0.12	3.93	1.42			3.44	-2.02

Sources: See text.

Notes: **Boldface** indicates interwar borders. Latin America (LA10) is comprised of Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Peru, Uruguay, and Venezuela. OECD (20) is comprised of Australia, Austria, Belgium, Canada, Denmark, France, Finland, Germany, Greece, Italy, Japan, the Netherlands, New Zealand, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Table 1A.3 Inter-country inequality in per capita GDP, 1925–2000

	MLD indices			Population shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1925	0.1332	0.0513	0.1981	0.8521	0.1479	0.0730	0.0602
1929	0.1431	0.0554	0.2086	0.8459	0.1541	0.0790	0.0641
1933	0.1160	0.0279	0.1727	0.8410	0.1590	0.0509	0.0651
1938	0.1319	0.0389	0.1749	0.8354	0.1646	0.0613	0.0706
1950	0.2352	0.1377	0.1744	0.8022	0.1978	0.1450	0.0902
1955	0.2187	0.0993	0.1496	0.7893	0.2107	0.1099	0.1088
1960	0.1984	0.0632	0.1249	0.7760	0.2240	0.0770	0.1214
1965	0.2092	0.0414	0.1454	0.7606	0.2394	0.0663	0.1429
1970	0.2112	0.0231	0.1357	0.7438	0.2562	0.0519	0.1593
1975	0.1965	0.0179	0.0915	0.7271	0.2729	0.0380	0.1585
1980	0.2062	0.0176	0.0806	0.7072	0.2928	0.0361	0.1701
1985	0.2482	0.0209	0.0658	0.6931	0.3069	0.0347	0.2135
1990	0.2816	0.0189	0.0622	0.6819	0.3181	0.0326	0.2489
1995	0.2855	0.0183	0.0837	0.6764	0.3236	0.0395	0.2461
2000	0.3120	0.0184	0.0930	0.6617	0.3383	0.0436	0.2684

Table 1A.3

(continued)

	MLD indices			Population shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
	<i>Annual rates of inequality reduction (%)</i>						
1925–1938	0.08	2.14	0.96			1.35	–1.23
1925–1950	–2.27	–3.95	0.51			–2.74	–1.62
1950–1980	0.44	6.85	2.57			4.64	–2.12
1938–1980	–1.06	1.88	1.84			1.26	–2.09
1980–2000	–2.07	–0.22	–0.71			–0.95	–2.28
1950–2000	–0.57	4.02	1.26			2.40	–2.18
	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1925	0.1020	0.0488	0.2079	0.9461	0.0539	0.0573	0.0446
1929	0.1089	0.0520	0.2228	0.9445	0.0555	0.0615	0.0474
1933	0.0846	0.0268	0.1896	0.9421	0.0579	0.0362	0.0484
1938	0.0973	0.0364	0.1857	0.9416	0.0584	0.0451	0.0522
1950	0.1977	0.1277	0.1764	0.9317	0.0683	0.1310	0.0667
1955	0.1768	0.0938	0.1538	0.9328	0.0672	0.0978	0.0790
1960	0.1528	0.0603	0.1298	0.9306	0.0694	0.0651	0.0877
1965	0.1502	0.0408	0.1509	0.9305	0.0695	0.0484	0.1017
1970	0.1446	0.0226	0.1439	0.9275	0.0725	0.0314	0.1132
1975	0.1398	0.0177	0.1002	0.9179	0.0821	0.0244	0.1153
1980	0.1483	0.0172	0.0857	0.9112	0.0888	0.0233	0.1250
1985	0.1754	0.0202	0.0660	0.9191	0.0809	0.0239	0.1515
1990	0.1936	0.0182	0.0591	0.9242	0.0758	0.0213	0.1723
1995	0.1950	0.0177	0.0822	0.9206	0.0794	0.0228	0.1722
2000	0.2110	0.0179	0.0919	0.9196	0.0804	0.0238	0.1871
	<i>Annual rates of inequality reduction (%)</i>						
1925–1938	0.36	2.25	0.87			1.85	–1.20
1925–1950	–2.65	–3.85	0.66			–3.30	–1.61
1950–1980	0.96	6.67	2.41			5.75	–2.09
1938–1980	–1.00	1.78	1.84			1.57	–2.08
1980–2000	–1.76	–0.19	–0.35			–0.11	–2.02
1950–2000	–0.13	3.93	1.30			3.41	–2.06

Sources: See text

Notes: Latin America (LA13) is comprised of Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Uruguay, and Venezuela. OECD (21) is comprised of Australia, Austria, Belgium, Canada, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Table 1A.4 Inter-country inequality in per capita GDP, 1950–2000

	MLD indices			Population shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1950	0.2541	0.1377	0.1729	0.7768	0.2232	0.1456	0.1086
1955	0.2408	0.0993	0.1522	0.7635	0.2365	0.1118	0.1290
1960	0.2229	0.0632	0.1304	0.7497	0.2503	0.0800	0.1429
1965	0.2376	0.0414	0.1514	0.7333	0.2667	0.0708	0.1668
1970	0.2432	0.0231	0.1450	0.7155	0.2845	0.0577	0.1854
1975	0.2281	0.0179	0.1051	0.6978	0.3022	0.0443	0.1838
1980	0.2402	0.0176	0.0966	0.6768	0.3232	0.0432	0.1970
1985	0.2895	0.0209	0.0878	0.6613	0.3387	0.0435	0.2460
1990	0.3320	0.0189	0.0909	0.6487	0.3513	0.0442	0.2878
1995	0.3367	0.0183	0.1129	0.6423	0.3577	0.0521	0.2846
2000	0.3677	0.0184	0.1246	0.6268	0.3732	0.0581	0.3097
<i>Annual rates of inequality reduction (%)</i>							
1950–1980	0.19	6.85	1.94			4.05	–1.99
1980–2000	–2.13	–0.22	–1.27			–1.48	–2.26
1950–2000	–0.74	4.02	0.66			1.84	–2.10
	Theil indices			GDP shares		Inequality	
	OECD and Latin America	OECD	Latin America	OECD	Latin America	Within regions	Between regions
1950	0.2116	0.1277	0.1772	0.9254	0.0746	0.1314	0.0802
1955	0.1920	0.0938	0.1563	0.9266	0.0734	0.0984	0.0936
1960	0.1692	0.0603	0.1349	0.9245	0.0755	0.0659	0.1033
1965	0.1684	0.0408	0.1556	0.9245	0.0755	0.0494	0.1190
1970	0.1648	0.0226	0.1506	0.9215	0.0785	0.0327	0.1322
1975	0.1601	0.0177	0.1091	0.9112	0.0888	0.0258	0.1344
1980	0.1704	0.0172	0.0973	0.9042	0.0958	0.0249	0.1455
1985	0.2012	0.0202	0.0814	0.9126	0.0874	0.0256	0.1756
1990	0.2237	0.0182	0.0799	0.9185	0.0815	0.0233	0.2004
1995	0.2254	0.1077	0.1012	0.9144	0.0856	0.0249	0.2005
2000	0.2437	0.0179	0.1121	0.9136	0.0864	0.0260	0.2177
<i>Annual rates of inequality reduction (%)</i>							
1950–1980	0.72	6.67	2.00			5.54	–1.99
1980–2000	–1.79	–0.19	–0.71			–0.22	–2.02
1950–2000	–0.28	3.93	0.92			3.24	–2.00

Sources: See text.

Notes: Latin America (LA20) is comprised of all Latin America. OECD (21) is comprised of Australia, Austria, Belgium, Canada, Denmark, France, Finland, Germany, Greece, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

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.
- Ahmad, S. 1998. International comparisons of incomes: Why should one bother using PPP Conversion? Poverty Reduction and Economic Management (PREM) seminar, Price and Purchasing Power Parities. Washington, DC: World Bank.
- 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.
- . 2004. The Oxford Latin American Economic History Database (OxLAD). Oxford, UK: The Latin American Centre at Oxford University. Retrieved from <http://oxlad.qeh.ox.ac.uk>.
- . 2005. The standard of living in Latin America during the Twentieth Century. *Economic History Review* 58:765–96.
- Astorga, P., and V. Fitzgerald. 1998. Statistical Appendix. In *Progress, poverty and exclusion. An economic history of Latin America in the 20th century*, ed. R. Thorp, 307–65. Washington: Inter-American Development Bank.
- Baptista, A. 1997. *Bases cuantitativas de la economía venezolana 1830–1995*. Caracas: Fundación Polar.
- Beckerman, W. 1966. *International comparisons of real incomes*. Paris: OECD Development Centre.
- Bértola, L. y asociados. 1998. *El PBI de Uruguay 1870–1936 y otras estimaciones*. Montevideo, Uruguay: Universidad de la República.
- Bhagwati, J. N. 1984. Why are services cheaper in the poor countries? *Economic Journal* 94:279–86.
- Bhagwati, J. N., and B. Hansen. 1973. Should growth rates be evaluated at international prices? In *Development and planning essays in honor of Paul Rosenstein-Rodan*, ed. J. N. Bhagwati and R. S. Eckaus, 53–68. Cambridge, MA: MIT Press.
- Bourguignon, F., and C. Morrisson. 2002. Inequality among world citizens. *American Economic Review* 92 (4): 727–44.
- Braithwaite, S. N. 1968. Real income levels in Latin America. *Review of Income and Wealth* 14:113–82.
- Braun, J., M. Braun, I. Briones, and J. Díaz. 1998. Economía chilena, 1810–1995. Estadísticas histórica. Documento de Trabajo 187, Pontificia Universidad Católica de Chile.
- Broadberry, S. N. 1994. Comparative productivity in British and American manufacturing during the nineteenth century. *Explorations in Economic History* 31: 521–48.
- . 1997. Forging ahead, falling behind and catching-up: A sectoral analysis of Anglo-American productivity differences. *Research in Economic History* 17: 1–37.
- Broadberry, S. N., and R. R. Fremdling. 1990. Comparative productivity in Britain and German industry, 1907–1937. *Oxford Bulletin of Economics and Statistics* 52:403–21.
- Bulmer-Thomas, V. 1994. *The economic history of Latin America since independence*. Cambridge: Cambridge University Press.
- Burger, A. 1997. Dutch industry in international perspective 1850–1913. Paper presented at conference, Historical National Accounts for the Netherlands: Eco-

- conomic Growth and Structural Change 1800–1913. Utrecht: N. W. Posthumus Instituut.
- Cardoso, E., and A. Fishlow. 1992. Latin American development. *Journal of Latin American Studies* 24:197–218.
- CEPAL. 1978. Series históricas del crecimiento de América Latina. *Cuadernos Estadísticos de la CEPAL*. Santiago de Chile: CEPAL.
- Coatsworth, J. H. 1989. The decline of the Mexican economy, 1800–1860. In *América Latina en la época de Simón Bolívar: Latin America formación de las economías nacionales y los intereses económicos europeos 1800–1850*, ed. R. Liehr, 27–53. Berlin: Colloquium Verlag.
- . 1993. Notes on the comparative economic history of Latin America and the United States. In *Development and underdevelopment in America: Contrasts in economic growth in North America and Latin America in historical perspective*, ed. W. L. Bernecker and H. W. Tobler, 10–30. Berlin: Walter de Gruyter.
- . 1998. Economic and institutional trajectories in nineteenth-century Latin America. In *Latin America and the world economy since 1800*, ed. J. H. Coatsworth and A. M. Taylor, 23–54. Cambridge, MA: Harvard University Press.
- . 2003. Mexico. In *The Oxford Encyclopedia of economic history*, ed. J. Mokyr, 501–7. New York: Oxford University Press.
- Cortés Conde, R., and M. Harriague. 1994. El PBI argentino, 1875–1935. Unpublished paper. Buenos Aires: Universidad de San Andrés.
- De Gregorio, J. 1992. Economic growth in Latin America. *Journal of Development Economics* 39:59–84.
- Della Paolera, G., A. M. Taylor, and C. G. Bozolli. 2003. Historical statistics. In *A new economic history of Argentina* (with CD-ROM), ed. G. Della Paolera and A. M. Taylor, 376–85. New York: Cambridge University Press.
- 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.
- Dormois, J. P., and C. Bardini. 1995. La productivité du travail dans l'industrie de divers pays d'Europe avant 1914. *Economies et Sociétés. Histoire Quantitative de l'Economie Française*. Série A F 21, 12, 77–103.
- Economic Commission for Latin America (ECLA). 1968. The measurement of Latin American real income in U.S. dollars. *Economic Bulletin for Latin America* 12 (2): 107–41.
- Edwards, S. 1995. *Crisis and reform in Latin America: From despair to hope*. New York: Oxford University Press.
- Engerman, S. L., and K. L. Sokoloff. 1997. Factor endowments, institutions, and differential paths of growth among new world economies. In *How Latin America fell behind: Essays on the economic histories of Brazil and Mexico, 1800–1914*, ed. S. Haber, 260–304. Stanford, CA: Stanford University Press.
- 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, DC: World Bank.
- Fraile, P., R. J. Salvucci, and L. K. Salvucci. 1993. El caso cubano: Exportaciones e independencia. In *La independencia americana: Consecuencias económicas*, ed. L. Prados de la Escosura and S. Amaral, 80–101. Madrid: Alianza.
- Frank, A. G. 1967. *Capitalism and underdevelopment in Latin America*. New York: Monthly Review Press.
- Fremdling, R. R. 1991. Productivity comparisons between Great Britain and Germany, 1855–1913. *Scandinavian Economic History Review* 29:28–42.

- Galor, O. 2004. The demographic transition and the emergence of sustained economic growth. Centre for Economic Policy Research discussion paper no. 4714.
- Goldsmith, R. W. 1986. *Desenvolvimento financeiro sob um século de inflação*. Rio de Janeiro: Harper & Row do Brasil.
- GRECO (Grupo de Estudios de Crecimiento Económico). 2002. *El crecimiento económico colombiano en el siglo XX*. Bogotá, Colombia: Fondo de cultura Económico.
- Haber, S., ed. 1997. *How Latin America fell behind: Essays on the economic histories of Brazil and Mexico, 1800–1914*. Stanford, CA: Stanford University Press.
- Hofman, A. A. 2000. *The economic development of Latin America in the twentieth century*. Cheltenham, UK: Elgar.
- . 2001. Long run economic development in Latin America in a comparative perspective: Proximate and ultimate causes. ECLAC *Macroeconomía del Desarrollo* series 8.
- Horlings, E. 1997. The contribution of the service sector to gross domestic product in Belgium, 1835–1990. Unpublished paper, International Institute of Social History [IISH], Universiteit Utrecht.
- INEGI. 1995. *Estadísticas históricas de México*. México DF: INEGI.
- Isenman, P. 1980. Inter-country comparison of “real” (PPP) incomes: Revised estimates and unresolved questions. *World Development* 8:61–72.
- Jaramillo Uribe, J., A. Meisel, and M. Urrutia. 2001. Continuities and discontinuities in the fiscal and monetary institutions of New Granada, 1783–1850. In *Transferring wealth and power from the Old to the New World: Monetary and fiscal institutions in the 17th through the 19th Centuries*, ed. M. D. Bordo and R. Cortés-Conde, 414–50. Cambridge: Cambridge University Press.
- Kalmanovitz, S. 2005. La economía de la Nueva Granada (unpublished paper, David Rockefeller Center of Latin American Studies, Harvard University).
- Kravis, I. B., and R. E. Lipsey. 1991. The international comparison program: Current status and problems. In *International economic transactions: Issues in measurement and empirical research*, ed. P. E. Hooper and J. D. Richardson, 437–64. *Studies in Income and Wealth*, vol. 55. Chicago: University of Chicago Press.
- Leff, N. H. 1982. *Underdevelopment and development in Brazil*. 2 vols. London: Macmillan.
- Lindert, P. H., and J. G. Williamson. 2003. Does globalization make the world more unequal? In *Globalization in historical perspective*, ed. M. D. Bordo, A. M. Taylor, and J. G. Williamson, 227–70. Chicago: University of Chicago Press.
- Maddison, A. 1991. *Dynamic forces in capitalist development: A long-run comparative view*. Oxford: Oxford University Press.
- . 1995. *Monitoring the world economy, 1820–1992*. Paris: OECD Development Centre.
- . 2001. *The world economy: A millennial perspective*. Paris: OECD Development Centre.
- . 2003. *The world economy: Historical statistics*. Paris: OECD Development Centre.
- Mitchell, B. R. 1992. *International historical statistics: Europe 1750–1988*. New York: Stockton.
- Mitchell, B. R. 1993. *International historical statistics: The Americas 1750–1988*. New York: Stockton.
- Mitchell, B. R. 1994. *International historical statistics: Africa, Asia and Oceania 1750–1988*. New York: Stockton.
- Newland, C. 1998. Economic development and population change: Argentina, 1810–

1870. In *Latin America and the world economy since 1800*, ed. J. H. Coatsworth and A. M. Taylor, 207–22. Cambridge, MA: Harvard University Press.
- Newland, C., and B. Poulson. 1998. Purely animal: Pastoral production and early Argentine economic growth 1825–1865. *Explorations in Economic History* 35 (3): 325–45.
- North, Douglass C. 1990. *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.
- North, D. C., W. R. Summerhill, and B. R. Weingast. 2000. Order, disorder, and economic change: Latin America versus North America. In *Governing for prosperity*, ed. B. Bueno de Mesquita and H. L. Root, 17–58. New Haven, CT: Yale University Press.
- Nuxoll, D. A. 1994. Differences in relative prices and international differences in growth rates. *American Economic Review* 84:1423–36.
- O'Brien, P. K., and C. Keyder. 1978. *Economic growth in Britain and France 1780–1914: Two paths to the twentieth century*. London: George Allen & Unwin.
- O'Brien, P. K., and L. Prados de la Escosura. 1992. Agricultural productivity and European industrialization, 1890–1980. *Economic History Review* 45:514–36.
- 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.
- Prebisch, R. 1950. *The economic development of Latin America and its principal problems*. New York: United Nations, Economic Commission for Latin America.
- Quiroz, A. W. 1993. Consecuencias económicas y financieras del proceso de la independencia en el Perú, 1800–1850. In *La independencia americana: consecuencias económicas*, ed. L. Prados de la Escosura and S. Amaral, 124–46. Madrid: Alianza.
- Sala i Martín, X. 2002. The disturbing “rise” of global inequality, NBER Working Paper no. 8904. Cambridge, MA: National Bureau of Economic Research.
- Salazar-Carrillo, J. 1983. Real product and price comparisons for Latin America and other world countries. *Economic Development and Cultural Change* 31 (4): 757–73.
- Salazar-Carrillo, J., and D. S. Prasada Rao. 1988. Real product and price comparisons among Latin American countries. In *World comparison of incomes, prices and product*, ed. J. Salazar-Carrillo and D. S. Prasada Rao, 195–205. Amsterdam: North Holland.
- Salazar-Carrillo, J., and I. Tirado de Alonso. 1988. Real product and price comparisons between Latin America and the rest of the world. *Review of Income and Wealth* 34 (1): 27–43.
- Salvucci, R. J. 1997. Mexican national income in the era of independence, 1800–1840. In *How Latin America fell behind: Essays on the economic histories of Brazil and Mexico, 1800–1914*, ed. S. Haber, 216–42. Stanford, CA: Stanford University Press.
- Santamaría, A. 2005. Las cuentas nacionales de Cuba, 1690–2005 (unpublished paper, Centro de Estudios Históricos, Centro Superior de Investigaciones Científicas, Madrid).
- Singer, H. W. 1950. The distribution of gains between investing and borrowing countries. *American Economic Review Papers and Proceedings* 11 (2): 473–85.
- 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.
- Summers, R., and A. Heston. 1991. The Penn World Table (Mark 5): An expanded set of international comparisons, 1950–1988. *Quarterly Journal of Economics* 106:327–68.

- Taylor, A. M. 1998. On the cost of inward-looking development: Price distortions, growth and divergence in Latin America. *Journal of Economic History* 58 (1): 1–19.
- Theil, H. 1979. World income inequality and its components. *Economics Letters* 2:99–102.
- . 1989. The development of international inequality: 1960–1985. *Journal of Econometrics* 42 (1): 145–55.
- Ward, M., and J. Devereux. 2003a. Measuring British decline: Direct versus long span measures. *Journal of Economic History* 63:826–51.
- . 2003b. New evidence on catch-up and convergence after 1870 (unpublished paper, Loyola College, Baltimore, and Queens College, CUNY).
- Williamson, J. G. 1995. The evolution of global labor markets since 1830: Background evidence and hypotheses. *Explorations in Economic History* 32:141–96.
- Zanden, J. L. van. 1991. The first green revolution: The growth of production and productivity in European agriculture, 1870–1914. *Economic History Review* 44:215–39.

