

Poverty, Inequality and the New Left in Latin America Woodrow Wilson International Center for Scholars Nora Lustig¹ July 25, 2009

Introduction

Latin America is the most unequal region in the world. Since 2002, however, inequality in Latin American countries has declined in twelve out of the seventeen countries for which there is comparable data at an average rate equal to 1.1 percent a year. In addition, extreme poverty has fallen since 2002 at a faster pace than in the past. The recent decline in inequality and poverty has coincided with the rise of leftist regimes in a growing number of countries. In 2009, ten countries in Latin America—comprising around two-thirds of the region's population—were being governed by regimes that can be classified as leftist²: Argentina (2003), Bolivia (2006), Brazil (2003), Chile (2000), Ecuador (2007), El Salvador (2009), Nicaragua (2007), Paraguay (2008), Uruguay (2005) and Venezuela (1999) (Table 1). Following other authors³, the regimes were classified as "New Left" based on the political orientation of the governing party, or the faction of the governing party to which the president belongs. So, for example, in the case of Chile, the government is considered as part of the Left when the president came from the Socialist rather than the Christian Democratic Party. In the case of Argentina, the peronist government is considered as part of the Left since Nestor Kirchner took power in 2003.

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The year from which the country was governed by a party or president of the left appears in parenthesis. At the beginning of 2009, in Venezuela, the left had been governing for more than a decade while in Ecuador, Nicaragua and Paraguay, the left had only been governing between one to two years.

³ See, Arnson and Perales (2007).

⁴ In this paper we will use Left, left, leftist and new Left interchangeably.

Table 1

Countries with Leftist Governments and Available Data on Inequality and Poverty

Country	President	Start Date	Type of Left	Inequality Data /a	Poverty Data /a	Coverage	Population in 2006 (million of habitants)
Argentina	Néstor Kirchner	May 2003	Populist	YES	YES	Urban	35.8
Bolivia	Evo Morales	January 2006	Populist	NO	NO	Whole country	9.4
Brazil	Ignacio Lula da Silva	January 2003	Social Democratic	YES	YES	Whole country	189.3
Chile	Ricardo Lagos	March 2000	Social Democratic	YES	YES	Whole country	16.4
Ecuador	Rafael Correa	January 2007	Populist	NO	NO	Whole country	13.2
El Salvador	Mauricio Funes	June 2009	To be defined	NO	NO	Whole country	6.8
Nicaragua	Daniel Ortega	January 2007	Populist	NO	NO	Whole country	5.5
Paraguay	Fernando Lugo	August 2008	To be defined	NO	NO	Whole country	60.16
Uruguay	Tabaré Vázquez	March 2005	Social Democratic	YES	YES	Urban	3.0
Venezuela	Hugo Chávez	February 1999	Populist	YES	YES	Whole country	27.0
Total b/							366.6

Source: Socio-Economic Database for Latin America and the Caribbean (CEDLAS and the World Bank)
http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/ and several articles in printed media. The population data is from the World Development Indicators (WDI) database, World Bank (http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers). Notes:

Some authors have broadly distinguished between *social democratic* left regimes (Brazil, Chile and Uruguay) and *populist* left regimes (Argentina, Bolivia, Ecuador, Nicaragua and Venezuela).⁵ This work makes use of this classification. While this classification is based principally on socio-political differences, the populist left can be distinguished from the social democratic left from an economic perspective as well. In contrast to the social democratic left, populist left regimes tend to be less prudent in their macroeconomic policies, to reject more frequently the free market as the mechanism to determine prices and allocate resources, to favor more state intervention in the economy, and to have fewer reservations regarding the expropriation of property and the breach of

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^{1.} Chile is considered as having been governed by the Left since 2000, when the president of the ruling Concertación coalition came from the Socialist Party. In the cases of El Salvador and Paraguay, the type of leftist regime remains to be defined.

2. a/ Refers to the availability of data for inequality and poverty for the relevant period (the years that the Left controlled the government).

^{3.} b/ Latin America's total population was 554 million in 2006. The countries considered in the table represent 66.2 percent of this total.

⁵ See, Arnson and Perales (2007). Their book does not classify the governments of Paraguay and El Salvador with respect to whether they are populist or social democratic Left because it was written before elections took place.

contracts. Although both Left regimes aim to reduce inequities, social democratic Left governments choose to redistribute through social programs and are far less inclined to impose confiscatory taxation or expropriate land.⁶ In this case, using economic and social policy differences would yield the same classification as the one based on socio-political differences.

The coincidence between the decline in inequality and poverty and the rise of the Left in Latin America raises the following questions: Does the evolution of inequality and poverty in a particular country differ with the political orientation of the governing regime? Do the trends in poverty and inequality or the rates at which they change differ in countries that are currently governed by the Left, as opposed to those that are not? Are there significant differences in the evolution of inequality and poverty in countries governed by the populist versus the social democratic Left? Using descriptive statistics and the preliminary results of econometric analysis, the purpose of this paper is to answer these three questions.

This paper is organized into five sections. The first section presents a brief overview of inequality and poverty in Latin America compared to other regions of the world. The second section is on data, indicators and methods used in the analysis. The third section discusses the relationship between type of regime and the evolution of inequality and poverty in a particular country before and after the Left came to power, and between countries under leftist and non-leftist governments. The fourth section summarizes the preliminary results of the econometric analysis. The fifth session provides conclusions.

1. Inequality and poverty in Latin America compared with the rest of the world

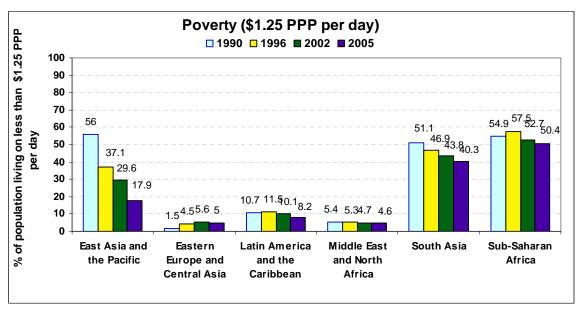
According to the World Bank's most recent estimates, global poverty (measured by the international poverty line of US\$1.25 a day in 2005 prices) fell from 42 percent in 1990 to 25 percent by 2005. In 2005 around 1.4 billion people in the world lived in poverty. The incidence of poverty in Latin America and the Caribbean is considerably

⁶ "...Like European social democracy, these parties embrace liberal democracy and multi-class alliances, and they seek to redress inequalities through social programs rather than large-scale property redistribution." (Roberts, 2007, p. 5).

lower than in other regions, with the exception of Eastern Europe and Central Asia (Figure 1). Given its level of income per capita, however, the incidence of poverty in Latin America and the Caribbean is relatively high. This excess of poverty is a product of the region's high concentration of income.

Figure 1 also shows that East Asia and the Pacific experienced the greatest reduction in poverty among all the regions, primarily as a result of the spectacular decline in poverty in China. In contrast, in Eastern Europe and Central Asia, poverty rose in the 1990s; this increase was mostly due to large declines in GDP per capita, which took place in the region during its period of transition from socialism to market-based economies. In Latin America and the Caribbean, poverty rose in the first half of the 1990s, when various countries were facing macroeconomic crises. Since 2002, poverty fell at a greater rate than in prior periods, mostly due to the economic benefits generated by the rise in prices of commodities exported by the region (such as oil, copper, grains, and soybeans). These reductions are in line with the common wisdom that as economies grow more rapidly, poverty rates decline more rapidly as well.

Figure 1
Incidence of poverty, by region: 1990-2005



Source: Author's elaboration based on Chen and Ravallion (2008).

Note: These estimations use the international poverty line of 1.25 a day in 2005 purchasing power parity (PPP) prices. This is the new international line for poverty employed by the World Bank.

In Figure 2 one can observe that Latin America and the Caribbean have the highest levels of inequality in the world (as measured by the Gini coefficient). Nevertheless, Figure 3 shows that the region's Gini coefficient fell on average since the early 2000s. This reduction in inequality is a new phenomenon in a region that historically has been categorized for its high concentration of income. The questions are a) whether this reduction in inequality is a product of the prosperity associated with the rise in the price of raw materials, and b) whether it will be sustainable. These questions, as important as they are, are not the focus of the current paper and are analyzed elsewhere.⁷

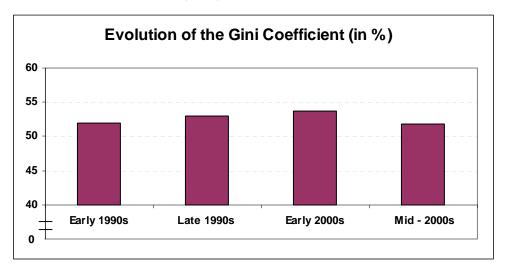
Gini Coefficient (in %), by Region, 2004 60 53.2 50 44.7 38.9 38.9 39.1 40 33.6 32.2 30 20 10 0 Developed Europe and **South Asia** North Africa East Asia and Sub-Saharan Latin America Countries the Pacific **Central Asia** and the and the **Africa** Middle East Caribbean

Figure 2

Source: Author's calculations based on Ferreira and Ravallion (2008).

⁷ Lopez-Calva and Lustig, forthcoming.

Figure 3
Gini Coefficient (in %), for Latin America: 1990 – 2005



Source: Gasparini et al. (2008).

Note: Data are for most recent year within two years of dates listed. To make the changes in the Gini more visible, Figure 3's y-axis begins at forty percent instead of zero.

Up to now, the data presented reflect averages for the region. The experience of individual countries, however, may differ considerably. Among the fourteen countries for which a comparison is possible, poverty decreased in eleven of the fourteen countries: Argentina, Bolivia, Brazil, Chile, Costa Rica (very slightly), Ecuador, El Salvador, Honduras, Mexico, Peru and Venezuela, and increased in three: Paraguay, the Dominican Republic, and Uruguay. Extreme poverty fell in eleven: Argentina, Bolivia, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Honduras, Mexico, the Dominican Republic and Venezuela, and rose in three: Paraguay, Peru (very slightly) and Uruguay from 2000 to 2006. As for inequality, of the fourteen countries for which the information was available, the Gini coefficient declined in ten: Argentina, Bolivia, Brazil, Chile, Ecuador, El Salvador, Mexico, Paraguay, Peru and Venezuela, and increased in four: Costa Rica, Honduras, the Dominican Republic and Uruguay from 2000 to 2006. Is there an

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¹⁰ See Figure 8.

⁸ For Brazil data from 1999 was used instead of data from 2000 because there are no PNAD household surveys for 2000.

⁹ See Figure 9. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80 percent of the total population.

observable relationship between governments' political orientation and countries' evolution of poverty and inequality? This question is the subject of the next section.

2. Data, Indicators and Methods

This study uses two well-known measures of poverty and inequality. For poverty, the paper uses the incidence of poverty, also known as the headcount ratio (that is, the proportion of individuals living with an income—or consumption—below the poverty line); depending on whether the headcount ratio is calculated with extreme or moderate poverty lines, the paper distinguishes between measures of extreme poverty (or indigence) and (total) poverty, respectively. For inequality, the paper uses the Gini coefficient. The Gini coefficient can take on values between zero and one (or zero to one hundred if it is presented as a percentage). The closer the value is to zero, the less unequal the distribution of income; conversely, a value closer to one indicates greater inequality. The data for the headcount ratios and the Gini coefficients for Latin America come from SEDLAC. Changes in inequality and poverty were statistically significant. The appendix describes the indicators, statistical significance tests and the databases in more detail.

The analysis presented here uses data from seventeen countries for which (roughly) comparable measures of inequality and poverty exist. ¹⁴ Countries were divided

¹¹ The econometric analysis also uses other measures of poverty such as the poverty gap.

¹² The Gini is named after the person who proposed it. In general, Gini coefficients for countries' distribution of income do not exceed .65 or fall below .20. See the appendix for more details.

¹³ SEDLAC (Socio-Economic Database for Latin America and the Caribbean (CEDLAS and the World Bank) http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/). The data from SEDLAC was chosen because it has more recent information for some of the relevant countries and because it makes no adjustments for misreporting (thereby avoiding the usual controversies when such methods are used). In addition, the SEDLAC database allowed the author to work directly with the surveys, in the cases when it was necessary. Table A.1 describes the general characteristics of the household surveys. Table A.2 provides the definitions of income. Data from CEPAL and SEDLAC were considered and compared in preparing this paper. Table A.3 compares the differences between SEDLAC's and CEPAL's estimates of the changes in Gini from 2003 to 2006 by country. There are certain differences in the values and directions of change between the information from SEDLAC and the CEPAL database but this does not affect the results presented in this paper. Tables A.4 and A.5 present detailed results of the statistical significance tests performed on the changes in Gini coefficients as well as poverty and extreme poverty headcount ratios for Argentina, Venezuela, Brazil, Chile and Uruguay. Tables A.6, A.7 and A.8 present the Gini coefficients and headcount ratios for poverty and extreme poverty by country.

¹⁴ The seventeen countries are: Argentina, Bolivia, Brazil, Chile, Costa Rica, the Dominican Republic, Guatemala, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela. Although there are data for Colombia points, the lack of comparability among surveys is

into three groups according to type of regime: populist Left (Argentina and Venezuela), social democratic Left (Brazil, Chile and Uruguay), and non-Left (the remaining twelve). Bolivia, Ecuador, El Salvador, Nicaragua and Paraguay were included among the non-Left countries because in 2006—the cut-off year used in the descriptive statistics-- they were still governed by the non-Left.¹⁵

Using descriptive statistics, this paper explores the relationship between political regime and distributive outcomes (i.e., the evolution of poverty and inequality). In particular, it uses two indicators: a) frequency (i.e. the number of countries of the total in each group) at which inequality and poverty declined and b) the rate with which poverty and inequality declined in countries from each group.

The paper also presents the preliminary results using econometric analysis. Regressions were run using a panel of 17 countries for the period 1988-2008 with inequality and poverty measures as the dependent variables. The explanatory variables included the political orientation of the regime as well as other factors influencing distributive outcomes such as income per capita, commodity prices, government spending, and the share of fuels in total exports. The regressions also controlled for unobservable factors—the so-called "fixed effects"--, that is, time-invariant factors affecting inequality such as the initial distribution of land, the quality of education, latitude and the share of indigenous population, to name a few. The details of the econometric analysis are presented elsewhere. 16

3. Latin America: evolution of inequality and poverty and governments' political orientation

This section examines the relationship between the political orientation of a government and the evolution of inequality and poverty for the following countries: Argentina (urban areas), Brazil, Chile, Uruguay (urban areas) and Venezuela. For Bolivia, Ecuador, El Salvador, Nicaragua, and Paraguay, the only available data pre-dates

¹⁶ Lustig and McLeod (2009).

extreme so the country was dropped from this analysis. Econometric results are not sensitive to including or excluding Colombia from the sample.

¹⁵ In the regression analysis Bolivia was included among the Left. The econometric estimates, however, do not change if Bolivia is excluded or included among Left countries.

the years in which presidents of the Left took office; therefore, for the purpose of this statistical comparison, these countries are considered non-Left.

Using descriptive statistics on inequality and poverty, this section does two things. First, it analyses whether inequality and poverty under Left governments (in both the populist and social democratic Left) showed a different behavior than under the immediately *previous* non-Left ones. It addresses the following questions: did inequality and poverty fall under the Left while they were constant or rose under the previous non-Left governments? If they fell under both regimes, was the rate at which they fell faster under Left than under the previous non-Left governments? This is done in subsection i.

Second, the paper explores whether inequality and poverty under Left regimes—and within the Left, between populist and social democratic regimes—showed a different pattern than under the *contemporaneous* non-Left regimes. In order to do comparisons between the three groups of countries, two straightforward indicators were chosen. The first indicator is the frequency (i.e. the number of countries of the total in each group) at which inequality and poverty declined; the second indicator is the rate with which poverty and inequality declined in countries from each group. This is done in subsection ii.

Comparing the present with the past: leftist governments and their predecessors

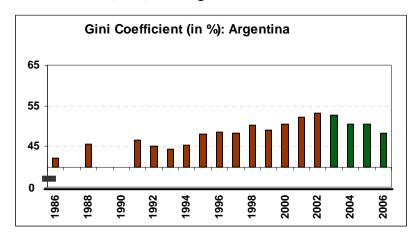
Populist Leftists: Argentina and Venezuela¹⁷

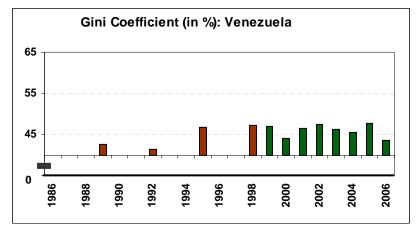
Figures 4 and 5 show a clear reversal in the evolution of inequality and poverty in Argentina from 2003 to 2006. Starting in 2003, after Néstor Kirchner assumed the presidency, inequality and poverty began to fall and continued to reverse their previous trend (green bars). In contrast, poverty and inequality had been trending upwards in the years prior to his presidency (brown bars). Nevertheless, during Kirchner's administration inequality and poverty remained at levels similar to those of the mid-1990s, and both were much higher than mid-1980s levels. In Venezuela, the trend is

¹⁷ The reader is reminded that the poverty and inequality indicators do not include the imputed value of free or *quasi*-free social services in education, health, or other governmental services.

unclear. Inequality as well as poverty and extreme poverty rose in some years, but fell in others, and there are some years in which inequality and poverty maintained similar levels to those of prior governments. In fact, given that both Argentina and Venezuela faced large declines in income per capita in 2002 (with similar spikes in poverty and inequality followed by declines in later years), it would seem that at least part of the trends in poverty and inequality in both countries are explained by macroeconomic factors. However, in Argentina the leftist government took control after the crisis, whereas in the case of Venezuela the crisis occurred while under a leftist government's control.

Figure 4
Gini Coefficient (in %), for Argentina and Venezuela: 1986-2006





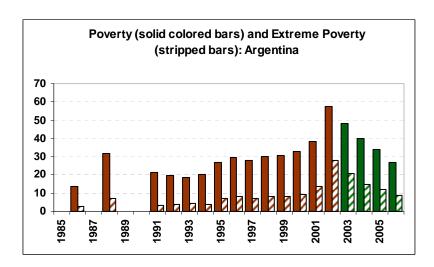
 $Source: Author's \ elaboration \ based \ on \ SEDLAC \ (CEDLAS \ and \ the \ World \ Bank). \ For \ more \ information \ see \ http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.$

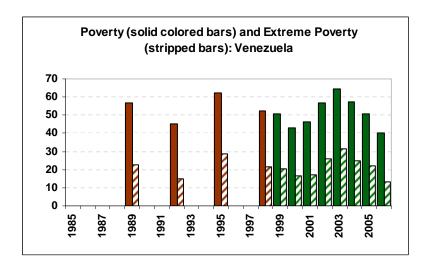
1. The green bars denote the years when the country was under a leftist government.

Notes:

- 2. Data for Argentina are for urban areas only.
- 3. Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.4.

Figure 5 Poverty and extreme poverty, in Argentina and Venezuela: 1986-2006





 $Source: Author's \ elaboration \ based \ on \ SEDLAC \ (CEDLAS \ and \ the \ World \ Bank). \ For \ more \ information \ see \ http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.$

Notes:

- 1. Poverty and extreme poverty are measured using national moderate and extreme poverty lines, respectively.
- 2. The green bars denote the years when the country was under a leftist government.
- 3. Data for Argentina are for urban areas only.

4. Using the bootstrap method, the author tested whether differences between headcount ratios between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.4.

Social Democratic Leftists: Brazil, Chile and Uruguay

According to Figures 6 and 7, in Brazil, since 2003 (when Ignacio "Lula" da Silva had assumed the presidency), inequality and poverty declined at an accelerated pace; in prior years Brazil's poverty and inequality either had remained unchanged or had declined slowly. In Chile, at the beginning of the 1990s, inequality fell in comparison with the levels recorded at the end of the military government (1987). However, inequality began to increase in the second half of the 1990s. It was not until 2000 (when Ricardo Lagos had assumed the presidency) that Chile began to experience a declining trend in inequality. From 2000 to 2003 poverty and extreme poverty declined at roughly the same rate under both the leftist government and the prior government. But, from 2003 to 2005 (the last year for which data are available) Chile's poverty seems to have declined at an accelerated rate. Finally, in Uruguay since 2005 (when Tabaré Vázquez assumed the presidency) poverty and extreme poverty reversed their rising trend, but inequality rose. Inequality and poverty levels under Tabaré Vázquez in 2006 match the levels experienced under the immediately prior government and are higher than in the early 1990s.

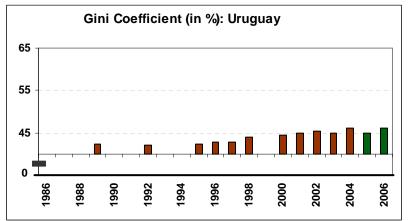
Figure 6

Gini coefficient (in %), Brazil, Chile and Uruguay: 1986-2000

Gini Coefficient (in %): Brazil



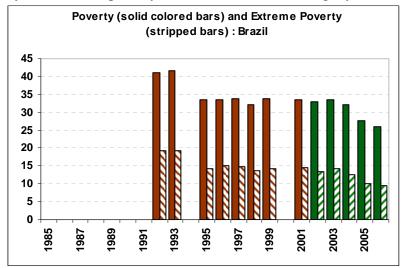


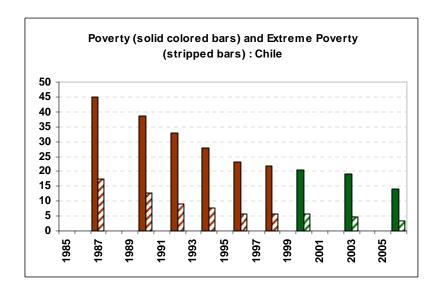


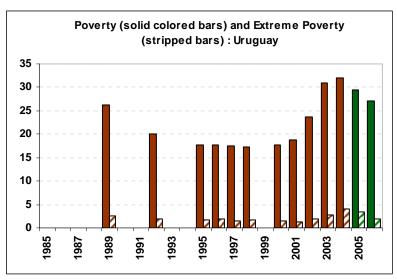
Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

- 1. The green bars denote the years when the country was under a leftist government.
- 2. Data for Uruguay are for urban areas only.
- 3. Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.4.

Figure 7
Poverty and extreme poverty for Brazil, Chile and Uruguay: 1986 -2006







Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

1. Poverty and extreme poverty are measured using national moderate and extreme poverty lines, respectively.

The green bars denote the years when the country was under a leftist government.

2. Data for Uruguay are for urban areas only.

3. Using the bootstrap method, the author tested whether differences between headcount ratios between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.4.

In sum, this sample shows that in three countries governed by the left (Argentina, Brazil, and Chile) there was a more pronounced trend toward falling rates of inequality and poverty than the trends experienced under prior governments. However, this was not the case in Venezuela. Uruguay showed a more pronounced trend toward falling rates of poverty, but inequality rose.

ii. Comparing the present with the present: leftist governments and governments of other political orientation from 2003 to 2006. 18

In Figure 8 one can observe that four out five countries under leftist governments experienced reductions in inequality while under governments of other political

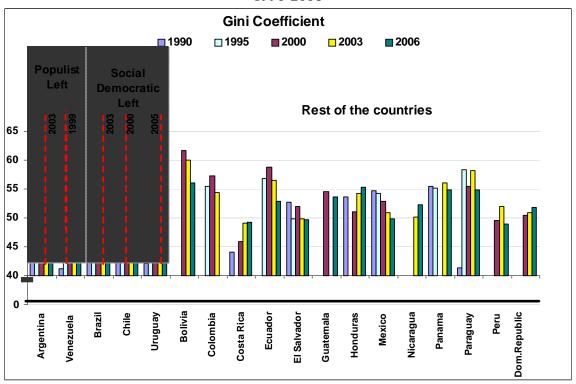
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¹⁸ This period was selected because it included the most number of observations for poverty and inequality for countries under leftist governments. At present, 2006 is the most recent year for which sufficient information is available to complete this analysis.

orientations only seven out of eleven did.¹⁹ Poverty and extreme poverty fell in all of the countries governed by the left but poverty and extreme poverty fell in all but two countries in the other group. (Figure 9) As most of the countries had high growth rates since 2002, it is not surprising that poverty and extreme poverty has decreased in a widespread manner. The high frequency of reductions in inequality is more unexpected because there is not a widely accepted pre-determined relationship between growth and inequality.

Figure 8

Gini coefficient (in %) and political orientation, by country in Latin America: 1990-2006



Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.

Note:

1. The dotted red line represents the first year that a leftist government took control in each country. Countries under social democratic left governments are dark grey. Countries under populist left governments are light grey. The left has governed since 2003 in Argentina and Brazil, since 2000 in Chile, since 2005 in Uruguay, and since 1999 in Venezuela.

2. For the year 1990, data refers to 1991 for Argentina, El Salvador and Panama, and 1992 for Brazil, Honduras, Mexico, Uruguay and Venezuela. For the year 1995, data refers to 1996 for Chile, Colombia and Mexico. For the year 2000, data refers to 1999 for Brazil, Ecuador, Honduras and Paraguay. For the year

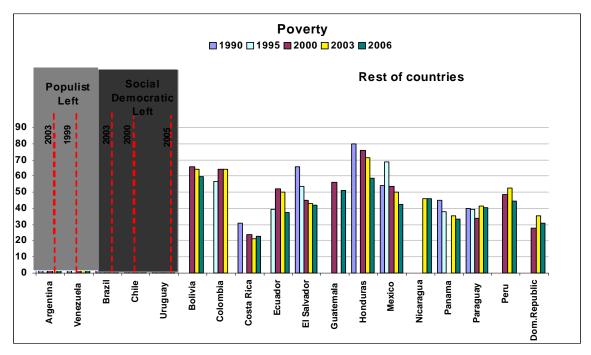
¹⁹ Although Figure 8 shows 14 countries not governed by the left, the number 11in the text refers to those countries for which information is available from 2003-2006.

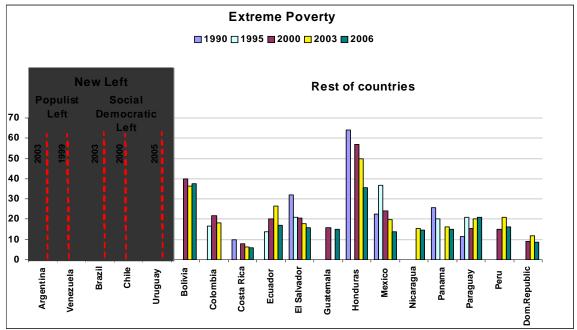
2003, data refers to 2001 for Nicaragua and to 2002 for Bolivia and Mexico. For the year 2006, data refers to 2005 for El Salvador and Nicaragua.

- 3. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80 percent of the total population. Data from 1990 in Paraguay corresponds to the metropolitan Area of Asunción. In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities.
- 4. Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.5.

Figure 9

Poverty and extreme poverty and political orientation, by country in Latin America: 1990-2006





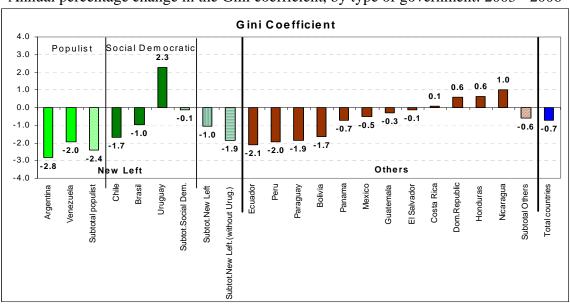
Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

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- 3. For the year 1990, data refers to 1991 for Argentina, El Salvador and Panama, and 1992 for Brazil, Honduras, Mexico, Uruguay and Venezuela. For the year 1995, data refers to 1996 for Chile, Colombia and Mexico. For the year 2000, data refers to 1999 for Brazil, Ecuador, Honduras and Paraguay. For the year 2003, data refers to 2001 for Nicaragua and to 2002 for Bolivia and Mexico. For the year 2006, data refers to 2005 for El Salvador and Nicaragua.
- 4. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80 percent of the total population. Data from 1990 in Paraguay corresponds to the metropolitan Area of Asunción. In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities.
- 5. Using the bootstrap method, the author tested whether differences between headcount ratios between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.5.

Does inequality and poverty decrease at a faster pace in countries governed by the left? Figures 10 and 11 show that the average reduction in inequality (measured by the Gini coefficient) and average reductions in poverty and extreme poverty were roughly between two and three times greater (or even more in the case of extreme poverty) for those countries governed by the left. Moreover, within the group of countries governed by the left, the reductions were even more pronounced for countries governed by the populist left.²⁰

Figure 10 Annual percentage change in the Gini coefficient, by type of government: 2003 - 2006



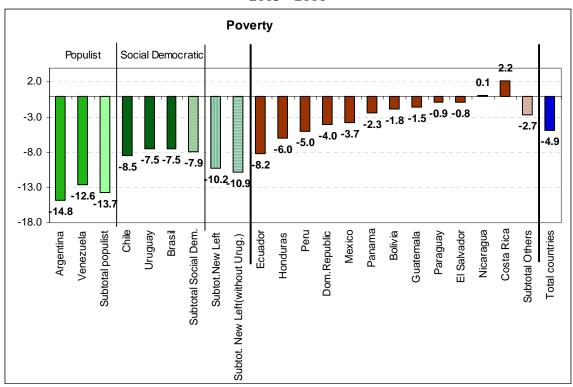
Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.

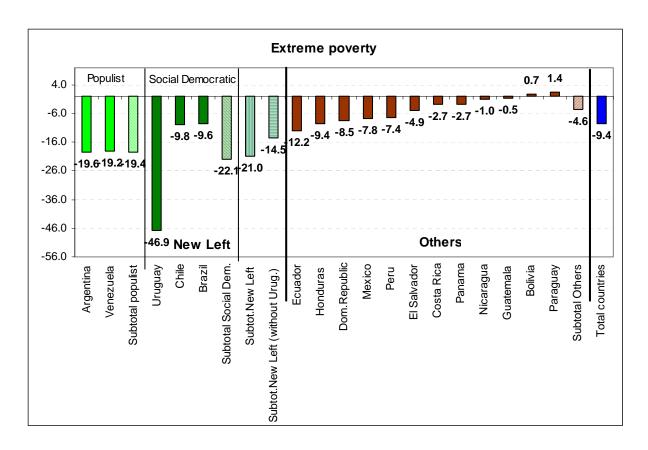
²⁰ The change in Gini coefficients and poverty for the leftist governments proved to be statistically significant for the 2003-06 period. For more details, see the Table A.5 in the Appendix.

Notes:

- 1. Colombia was not included because there were not sufficient data available.
- 2. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80 percent of the total population.
- 3. The annual percentage change in the Gini coefficient for each country is equal to the difference between the Gini in 2006 (or closest available year) and the Gini in 2003 (or closest available year) divided by 3 (or the corresponding number of years). The changes by groups of countries are calculated as the simple average of the annual percentage change for each country belonging to the corresponding group.
- 4. The percentage change in inequality refers to changes from 2003 to 2006, except in cases where data were not available for those years. For El Salvador the change is calculated from 2003 to 2005; for Guatemala it is calculated from 2000 to 2006; for Mexico it is calculated from 2002 to 2006; for Nicaragua it is from 2001 to 2005, and for Uruguay it is from 2005 to 2006.
- 5. The period of 2003-2006 was selected because it included the most number of observations for poverty and inequality for the maximum number of countries under leftist governments. However, the years that the leftist governments were in power in each country varies: the new left has governed since 2003 in Argentina and Brazil, since 2000 in Chile, since 2005 in Uruguay, and since 1999 in Venezuela.
- 6. Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.5.

Figure 11
Annual percentage change in poverty and extreme poverty, by type of government: 2003 - 2006





Source: Author's elaborations based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

- 1. Poverty and extreme poverty are measured using national moderate and extreme poverty lines, respectively.
- 2. Colombia was not included because there were not sufficient data available.
- 3. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80 percent of the total population.
- 4. The annual percentage change in the poverty (or extreme poverty) for each country is equal to the difference between the headcount ratio in 2006 (or closest available year) and the headcount ratio in 2003 (or closest available year) divided by 3 (or the corresponding number of years). The changes by groups of countries are calculated as the simple average of the annual percentage change for each country belonging to the corresponding group. The change in each country is taken as the percentage change between the oldest available year and the most recent year divided by the number of years. The changes by groups of countries are calculated as the simple average of the annual variations of each country belonging to the group.
- 5. The percentage change in poverty (or extreme poverty) refers to changes from 2003 to 2006, except in cases where data were not available for those years. For El Salvador the change is calculated from 2003 to 2005; for Guatemala it is calculated from 2000 to 2006; for Mexico it is calculated from 2002 to 2006; for Nicaragua it is from 2001 to 2005, and for Uruguay it is from 2005 to 2006.
- 6. The period of 2003-2006 was selected because it included the most number of observations for poverty and inequality for the maximum number of countries under leftist governments. However, the years that the leftist governments were in power in each country varies: the new left has governed since 2003 in Argentina and Brazil, since 2000 in Chile, since 2005 in Uruguay, and since 1999 in Venezuela.
- 7. Using the bootstrap method, the author tested whether differences between Headcount ratios between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications. Results are presented in Table A.5.

4. Controlling for Other Factors: Preliminary Results of the Econometric Analysis

Based on the descriptive statistics analysis, leftist governments seem to have greater success in reducing poverty and inequality than governments of other political orientations. Populist left governments in particular appear to have greater success in reducing poverty and inequality than the social democratic left regimes. However, an analysis based on descriptive statistics does not control for other factors that may also have affected the rate of inequality and poverty reduction. For example, Argentina and Venezuela were recovering from economic crises and benefited from sharp increases in the price of oil and other commodities during the 2002-2008 years. That is to say, one cannot conclude that it was the initiatives and policies of leftist governments (particularly, populist left governments), which caused reduction in poverty and inequality unless one can control for these other factors.

One way to control for the impact of factors such as the rise in commodity prices and income per capita is to use regression analysis. Commodity prices and income per capita can be introduced directly as control variables while "fixed effects" can be used to estimate the impact of country-specific but time-invariant factors affecting inequality such as, for example, the initial distribution of land, the quality of education, latitude and the share of indigenous population.

Preliminary results for a panel of 17 countries with adequate data for the period 1988 to 2008 suggest political regimes do matter for inequality outcomes.²¹ Under both social democratic and populist regimes public spending tends to reduce inequality, even though public spending for the region as a whole does not. However, the results for populist and social democratic regimes are different than with the descriptive statistics analysis. Even controlling for the commodity price boom inequality and poverty fell faster in the social democratic regimes (Brazil, Chile and Uruguay) where public spending in particular reduced inequality.²² However, the inequality reducing impact of

²¹ Lustig and McLeod (2009).

These results are broadly consistent with Huber et al.'s findings (Huber et al., 2009).

public spending in the populist regimes of Argentina, Bolivia and Venezuela disappears (the coefficient becomes not statistically significant) once one controls for unobserved effects and the commodity price boom (2002-2008). Historically, Argentina and Venezuela had lower levels of inequality than other Latin American countries, so a return to "normal" levels of inequality also helps explain part of the sharp post-2003 fall in inequality both countries (as measured by the Gini coefficient).

5. Conclusions

Both the descriptive and the econometric analyses suggest Left regimes in Latin America have fostered a faster decline in inequality and poverty. This is true when compared to a) previous and b) contemporaneous non-Left governments. However, econometric results suggest the jury is still out on whether the populist Left regimes in Argentina, Bolivia and Venezuela have been able to reduce inequality and poverty faster than other countries experiencing the same boom in commodity prices. The regression results suggest that Argentina and Venezuela were able to use the commodity boom to reverse inequality to their "normal" levels but that they did not do any better than other non-Left countries which were also benefited by the boom. Furthermore, the fiscal stance in both these countries puts the sustainability of their policies in doubt. Venezuela's fiscal revenues are highly sensitive to commodity prices and Argentina's have become increasingly sensitive with the greater reliance on export taxes under Left governments.²³

In contrast, the evidence for social democratic regimes is stronger: even controlling for other factors such as terms of trade and time-invariant country-specific characteristics they have reduced poverty and inequality faster than non-Left governments. This is significant because redistributive policies in social democratic regimes have not been associated with unsustainable fiscal policies. 24 In Chile, in fact, exactly the opposite happened: the windfall of the commodity boom was saved and could be used as a stabilizer when commodity prices fell since mid-2008.

There are three caveats to these conclusions. First some redistributive measures may not show up immediately as reduced income inequality: access to education and

²³ IMF (2009). ²⁴ IMF (2009).

other of Venezuela's in-kind transfers (the *misiones*). The sort of broader poverty and inequality or capability measures that are sensitive to this sort of redistribution are not captured by the income inquality and poverty measures studied here because, for one thing, the income measure does not impute values to these in-kind transfers.²⁵

Second for the same reason that some redistributive measures do not show up immediately, the better performance of the social democratic regimes may be due in part to past policies implemented under non-Left regimes. There is evidence that the recent decline in inequality in Brazil and Chile is associated to an expansion of basic education which started under previous regimes.²⁶

Third, these are all relatively new regimes: only Chile and Venezuela's governments have been in office since before 2003. Though the reductions in inequality and poverty are not likely to be reversed, such a reversal would not be unprecedented in the history of Latin America. Some authors argue that some of the reduction in inequality will be eroded by the current economic crisis, for example.²⁷ Hence these results are suggestive but preliminary as the full impact of new left governments is felt in Bolivia, Nicaragua, Ecuador, El Salvador and the sustainability of their policies in Argentina and Venezuela remains to be seen.

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²⁵ The income concept and what it includes is described in the Appendix.

²⁶ See Barros et al. (forthcoming) and Eberhard and Engel (forthcoming).

²⁷ Cornia and Martorano (2009).

Appendix

Measures of poverty and inequality: the headcount ratio and the Gini coefficient

In order to analyze the evolution of poverty, here we use the most common measure: the *incidence of poverty*. ²⁸ The incidence of poverty, also known as the headcount ratio, is defined as the proportion of the population that received an income (or consumption) below the poverty line. In the case of international comparisons, the World Bank uses a poverty line equal to \$1.25 a day in 2005 purchasing power prices (PPP). Countries usually estimate their own poverty lines, and distinguish between extreme poverty and moderate poverty. The national extreme poverty line is generally defined as the income necessary to meet basic nutritional requirements; any individual with an income below this minimum level would confront malnutrition and the complete deprivation of other basic goods. The national *moderate poverty* line is the minimum level of income necessary to consume a basket of goods and services that each country, according to their values and norms, deems necessary to lead a "dignified life". Except in the case of international comparisons, poverty estimates presented in this paper are based on the national moderate poverty and extreme poverty lines. These vary country by country.²⁹ Of the eighteen countries analyzed in this paper, for example, national extreme poverty lines are equal to around \$2.00 PPP per day in 2005 prices in eight countries; in the next eight countries, extreme poverty lines are equal to a value between \$1.00 PPP and \$2.00 PPP per day. In the remaining two countries the line is around \$1.00 PPP per day, close to the poverty line used by the World Bank for the international comparisons.

Countries' concentration of income can be measured by various indicators. The most commonly used indicator is the Gini coefficient, which is named in honor of its creator.³⁰ Gini coefficient values fall between zero and one (or zero and one hundred if it

²⁸ Other commonly used indicators are the poverty gap and the poverty severity index.

²⁹ For example, the international line of extreme poverty used by the World Bank is equal to \$1.25 per day in 2005 prices (commonly known as the line of "one dollar per day") but the United States' extreme poverty line is equal to \$13 per day. The line of extreme poverty of \$1.25 is measured in purchasing power parity. This is to say that adjustments are made for the differences that exist between prices of the same goods or services across countries. A moderate poverty line is not used in the United States. People with income less than \$13 per day are eligible for assistance programs (depending on other parameters such as the number of dependents, age, etc.).

¹⁰ Examples of other indicators are the Theil index, the variance of logarithms and the coefficient of variation.

is presented as a percentage). If its value is closer to zero (one), then the concentration of income is lower (higher). Worldwide countries' Gini coefficients usually range between .65 and .20.

Poverty and inequality measures presented in this paper are based on income per person per household.³¹ This concept generally covers labor income (for both salaried and self-employed workers) and other income (including interest, profits, rents and dividends) as well as both public transfers (such as pensions and cash benefits from social assistance programs like *Oportunidades* of Mexico or *Bolsa Familia* of Brazil) and private transfers (such as remittances).³² This concept of income does not include the imputed value of free or *quasi*-free public services for example, from education, health, or water and sanitation services. In this sense, by not including the imputed value derived from free or quasi-free public services, the data may overestimate the incidence of poverty and underestimate (or overestimate depending on the incidence of social spending) the levels of inequality.

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³¹ No adjustments are made on the basis of age or gender. More precise estimations convert the household size to units of *adult equivalents* adjusting the income requirements for children according to their age and for women under the premise that basic necessities (and associated costs) of women and children are different than those of adult men.

³² The sources of information used to estimate the poverty and inequality are called *Household Surveys* or income-expenditure surveys which are administered at different frequency in each country. These surveys cover thousands of households and capture a significant amount of information about those households. In general, surveys have national coverage, but surveys in Argentina and Uruguay cover urban areas only. Each country's urban population represents more than 80 percent of the total population. In 2006 Uruguay's survey had national coverage, but this paper uses data for the urban population only so that it is comparable with data from prior years. The analysis of the evolution of indicators over time and across different countries is complicated by the fact that the surveys are not necessarily comparable over years in the same country or across countries for the same year. See Table A.1 for details.

Table A.1

Description of the content of surveys utilized in this paper

		Descripti	ion o	i the co	mem '					Daper				
							DENTIFY D			SURVEYS INCLUDE DATA FROM:				
COUNTRY	YEAR	SURVEY NAME	ACRO-	COVERAGE	LABOR	INCOME	NON LABO	R INCOME	Self -		Income	Private	Public	Imputed
COONTRI	TEAK		NYM	COVERAGE	Monetary	Non monetary	Monetary	Non monetary	consumption	Pensions	per capital		Transfers	Income
	1980, 1986, 1988, 1991	Encuesta Permanente de Hogares	EPH	Urban - Gran Buenos Aires	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
ARGENTINA	1992-1997	Encuesta Permanente de Hogares	EPH	Urban (15 cities)	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
	1998-2003	Encuesta Permanente de Hogares	EPH	Urbana (28 cities)	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
	2003- 2006	Encuesta Permanente de Hogares-Continua	EPH-C	Urbana (28 cities)	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
	1993	Encuesta Integrada de Hogares	EIH	Urban	Yes	No	Yes	No *	No	Yes	Yes	Yes	Yes	Estimated
BOLIVIA	1997	Encuesta Nacional de Empleo	ENE	National	Yes	No *	Yes	No *	No	Yes	Yes	Yes	Yes	Estimated
	1999- 2003/04, 2006	Encuesta Continua de Hogares- MECOVI	ECH	National	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Estimated
BRAZIL	1992-1993, 1995-1999, 2001-2006	Pesquisa Nacional por Amostra de Domicilios	PNAD	National	Yes	Yes	Yes	No*	No	Yes	Yes	Yes	Yes	Estimated
CHILE	1987, 1990, 1992, 1994, 1996,1998, 2000, 2003, 2006	Encuesta de Caracterización Socioeconómica Nacional	CASEN	National	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
COLOMBIA	1996, 1999, 2000	Encuesta Nacional de Hogares - Fuerza de Trabajo	ENH-FT	National	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
	2001, 2003, 2004	Encuesta Continua de Hogares	ECH	National	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
COSTA RICA	1990, 1992, 1997, 2000 - 2006	Encuesta de Hogares de Propósitos Múltiples	ЕНРМ	National	Yes	No	Yes	No	No	Yes No (2002- 2006)	Yes	Yes	Yes	No
ECUADOR	1994, 1995, 1998, 1999	Encuesta de Condiciones de Vida Encuesta de	ECV	National	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Estimated
LOUNDOIN	2003-2006	Empleo, Desempleo y	ENEMD U	National	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Estimated

Table A.1 (continued) Description of the content of surveys utilized in this paper

					WE INDENTIFY DATA FROM:					SURVEYS INCLUDE DATA FROM:				
COUNTRY	YEAR	SURVEY NAME	ACRO NYM	COVERAGE	_	NI - 1	NON LABO	R INCOME Not	Self -	Pensions	Income per	Private	Public	Imputed
					Monetary	monetary	Monetary	monetary	consumption	Citatona	capital	Transfers	Transfers	Income
EL SALVADOR	1991, 1995- 1996, 1998- 2006	Encuesta de Hogares de Propósitos Múltiples	EHPM	National	Yes	No	Yes	No	Yes	Yes	Yes	yes	No	Yes
GUATEMALA	2000	Encuesta Nacional sobre Condiciones de Vida	ENCOV I	National	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Estimated
GUAT EIVIALA	2002-2004, 2006	Encuesta Nacional de Empleo e Ingresos	ENEI	National	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No *	Estimated
HONDURAS	1992, 1997, 1999, 2001, 2003-2006	Encuesta Permanente de Hogares de Propósitos Múltiples	EPHPM	National	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Estimada
MEXICO	1989,1992,1 996,1998,20 00,2002,200 4, 2005, 2006	Encuesta Nacional de Ingresos y Gastos de los Hogares	ENIGH	National	Yes	No *	Yes	No *	No	Yes	Yes	Yes	Yes	Estimada
NICARAGUA	1993, 1998, 2001, 2005	Encuesta Nacional de Hogares sobre Medición de Nivel de Vida	EMNV	National	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No *	Si
	1991	Encuesta de Hogares, Mano de Obra	EMO	National	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No
PANAMÁ	1995, 1997- 1998, 2001- 2003	Encuesta de Hogares	EH	National	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No
	2004-2006			National Metropolitan	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
	1990	Encuesta de Hogares (Mano de Obra)	EH	Area of Asunción	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Estimated
PARAGUAY	1995	Encuesta Integrada		National	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Estimated
	1997, 2001	de Hogares	EIH	National	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Estimated
	1999, 2002- 2006	Encuesta Permanente de Hogares	EPH	National	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Estimated
PERU	1997-2006	Encuesta Nacional de Hogares	ENAHO	National	Yes	Yes	Yes	No *	Yes	Yes	Yes	Yes	Yes	Yes
DOM.REPUB LIC	2000-2006	Encuesta Nacional de Fuerza de Trabajo	ENFT	National	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated
URUGUAY	1989, 1992, 1995-1998, 2000-2005	Encuesta Continua de Hogares	ECH	Urban	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
	2006	Encuesta Nacional de Hogares Ampliada	ENHA	National ⁽¹⁾	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
VENEZUELA	1989, 1992	Encuesta de Hogares Por Muestreo	EHM	National	Yes	No	No	No	No	No	No	No	No	Estimated
	1995, 1998- 2006	Encuesta de Hogares Por Muestreo	EHM	National	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Estimated

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

^{1. &}quot;YES" means that sources of households' per capita income can be identified in the household surveys and included in the table; "NO" means that they cannot be identified or included; and "NO*" means that they cannot be identified since a specific question does not exist, but it is believed that they are included in a more general variable.

^{2.} Although Uruguay's survey became national in 2006, this paper uses data that corresponds only to urban areas (equal to or greater than 5,000 inhabitants) in order to make them comparable to the previous household surveys, and to estimate the Gini coefficients as well as poverty and extreme poverty.

Table A.2

Description of the content of household's income per capita and principal income sources

Variable	Definition
UNIT OF ANALYSIS	
Individuals and Households	Individuals that live in the same household interviewed. A household is understood as the entirety of a group formed by a person or people that share the same particular dwelling and consume some collective goods and services-principally goods and services of the dwelling- charged to the same budget. This excludes domestic services, landlords and their families.
INCOMES	
Income per cpaita of the	Sum of total labor and non labor income (monetary and non monetary) of the household divided by the number
household	of members in the household (including imputed rent)
Labor income	Sum of monetary and non monetary income for all occupations. Labor income includes income for salaried jobs, self-employed and income from principal and secondary occupations.
Non labor income	Sum of total monetary and non monetary non-labor income (including imputed income). Non labor income includes the following three sources: public transfers (retirements and pensions), private transfers (scholarships, private donations, and remittances) and income from assets (capital gains, interest, rent, dividends and profits). In some surveys it also includes autoconsumption (income from self-made products).

Source: Author's elaboration based on SEDLAS (CEDLAS and the World Bank). For more information see

http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/

Note: Income concept utilized to estimate the Gini coefficient and the headcount ratios

Table A.3

Table comparing the data from SEDLAC and CEPAL:

Change in the Gini Coefficient, poverty and extreme poverty from 2006- 2003

Chan	50 111 6	ANNUAL PERCENTAGE CHANGE 2003 - 2006											
			ANN	IUAL PER	CENTAGE CH	ANGE 2003 - 2	2006						
		GINI			POVERTY	1	E	XTREME POV	ERTY				
	CHANGE	SEDLAC	CEPAL	CHANGE	SEDLAC	CEPAL	CHANGE	SEDLAC	CEPAL				
Argentina	NO	DECRE	ASING	UNAV.	DECREASING	- -	UNAV.	DECREASING					
Bolivia	UNAV.	DECREASING		UNAV.	DECREASING		UNAV.	INCREASING					
Brazil	NO	DECRE	ASING	NO	DECRE	ASING	NO	DECRE	ASING				
Chile	NO DECREASING			NO	DECRE	EASING	NO	DECRE	ASING				
Colombia	UNAV.		INCREASING	UNAV.		DECREASING	UNAV.		DECREASING				
Costa Rica	YES	DECREASING	DECREASING	YES	INCREASING	DECREASING	NO	DECRE	ASING				
Ecuador	YES	DECREASING	INCREASING	NO	DECRE	ASING	NO	DECRE	ASING				
El Salvador	NO	DECRE	ASING	NO	DECRE	ASING	NO	DECRE	ASING				
Guatemala	UNAV.	DECREASING		NO	DECRE	EASING	NO	DECRE	ASING				
Honduras	UNAV.	INCREASING		NO	DECRE	ASING	NO	DECRE	ASING				
Mexico	NO	DECRE	ASING	NO	DECRE	ASING	NO	DECRE	ASING				
Nicaragua	UNAV.	INCREASING		YES	INCREASING	DECREASING	NO	DECRE	ASING				
Panama	NO	DECRE	ASING	NO	DECRE	ASING	NO	DECRE	ASING				
Paraguay	NO	DECRE	ASING	NO	DECRE	EASING	YES	INCREASING	DECREASING				
Peru	UNAV.	DECREASING		NO	DECRE	EASING	NO	DECRE	ASING				
Dom.Republic	NO	INCRE	ASING	NO	DECRE	EASING	YES	DECREASING	INCREASING				
Uruguay	UNAV.	INCREASING		UNAV.	DECREASING		UNAV.	DECREASING					
Venezuela	NO	DECRE	ASING	NO	DECRE	ASING	NO	DECRE	ASING				

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank) and BADEINSO (CEPAL). For more information see the following web pages: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/ and http://websie.eclac.cl/sisgen/ConsultaIntegrada.asp?idAplicacion=1.

Note: "NO" means differences do not exist in the sign of change between both sources; "YES" means differences exist in the sign of change between both sources; "UNAV." means data is unavailable in one source or the other and a comparison cannot be made.

Table A.4
Test of Statistical Significance of Year-to-Year Change in Gini Coefficients (top) and headcount ratios (bottom) using the bootstrap method

	Popul	ist Left	Soci	al Democrati	c Left
	Argentina	Venezuela	Brazil	Chile	Uruguay
1980					
1981					
1982					
1983					
1984					
1985					
1986	S				
1987					
1988	S				
1989					
1990				NS	
1991	NS				
1992	NS	S		NS	NS
1993	NS		S		
1994	NS			NS	
1995	S	S	S		NS
1996	NS		NS	NS	NS
1997	NS		NS		NS
1998	S	NS	NS	NS	S
1999	NS	NS	S		
2000	S	S		NS	NS
2001	S	S	NS		NS
2002	NS	S	S		S
2003	NS	S S	S	NS	S
2004	S	S	S		S
2005	NS	S	NS		s s
2006	S	S	S	S	S

	-	Populi	st Left			;	Social Dem	ocratic Left	1	
	Argei	ntina	Vene	zuela	Bra	nzil	Ch	ile	Uruç	juay
	Poverty	Extreme poverty	Poverty	Extreme poverty	Poverty	Extreme poverty	Poverty	Extreme poverty	Poverty	Extreme poverty
1980										
1981										
1982										
1983										
1984										
1985										
1986	S	S								
1987										
1988	S	S								
1989										
1990							S	S		
1991	S	S								
1992	S	NS	S	S			S	S	S	S
1993	S	S			S	NS				
1994	S	NS					S	S		
1995	S	S	S	S	NS	S			S	NS
1996	S	S			NS	S	S	S	NS	NS
1997	S	NS			NS	NS			NS	S
1998	S	S	S	S	s	S	S	NS	NS	S
1999	NS	NS	S	S	S	S				
2000	S	S	S	S			S	NS	NS	S
2001	S		S	S	NS	NS			S	NS
2002	S	s s s	S	S	S	S			S S	S
2003	S	S	S	S S	S S	S	S	S	S	S S
2004	S	S	S	S	S	S			S	S
2005	S	S	\$ \$ \$ \$ \$ \$ \$	S S	S S	s s			S S	S S
2006	S	S	S	S	S	S	S	S	S	S

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

- 1. Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications.
- 2. The data shaded in grey correspond to the years for which data is available from surveys, and also means that the data is comparable.
- 3. The letter "S" means the difference between the coefficients is significant, "NS" means that the difference is not significant and "NC" means that information about the calculation of significance is not available for the years of analysis.

Table A.5
Significance Test of Change in Gini Coefficient (top) and headcount ratios (bottom) using the bootstrap method

Years 1990, 1995, 2000, 2003, and 2006

	1990-1995	1995-2000	2000-2003	2003-2006
		_		_
Argentina	NS	S	S	S
Bolivia	NC	NC	S	S
Brazil	S	S	S	S
Chile	NS	NS	NS	S
Colombia	NC	S	S	NC
Costa Rica	NC	NC	S	NS
Ecuador	NC	NS	NS	S
El Salvador	S	S	S	NS
Guatemala	NC	NC	NC	NC
Honduras	NC	NC	S	NS
Mexico	NS	NS	S	NS
Nicaragua	NC	NC	NC	NS
Panama	NS	NC	NC	S
Paraguay	S	S	S	S
Peru	NC	NC	NS	NS
Dom.Republic	NC	NC	NS	NS
Uruguay .	NS	S	NS	S
Venezuela	S	S	S	S

		EXTREME	POVERTY			POV	ERTY	
	1990-1995	1995-2000	2000-2003	2003-2006	1990-1995	1995-2000	2000-2003	2003-2006
Argentina	s	s	s	s	s	s	s	s
Bolivia	NC	NC	S	NS	NC	NC	s	s
Brazil	S	NS	NS	S	S	NS	NS	S
Chile	S	NS	S	s	s	S	s	s
Colombia	NC	S	S	NC	NC	S	NS	NC
Costa Rica	NC	NC	S	NS	NC	NC	s	s
Ecuador	NC	S	S	S	NC	S	S	s
El Salvador	S	NS	S	S	S	S	S	NS
Guatemala	NC							
Honduras	NC	NC	S	S	NC	NC	S	s
Mexico	S	S	S	s	s	S	s	s
Nicaragua	NC	NC	NC	NS	NC	NC	NC	NS
Panama	S	NC	NC	s	s	NC	NC	s
Paraguay	S	S	S	S	NS	S	S	NS
Peru	NC	NC	S	s	NC	NC	s	s
Dom.Republic	NC	NC	S	S	NC	NC	S	S
Uruguay	NS	NS	S	S	S	NS	S	S
Venezuela	S	S	S	S	S	S	S	s

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.

^{1.} Using the bootstrap method, the author tested whether differences between Gini coefficients between a specified year and the year immediately prior were statistically significant. Statistical significance was determined at a 95 percent level and with 100 replications.

^{2.} The letter "S" means that the difference between the coefficients is significant, "NS" means that the difference is not significant and "NC" means that information about the calculation of significance is not available under the period.

3. For the year 1990, data refers to 1991 for Argentina, El Salvador, and Panama, and 1992 for Brazil, Honduras, Mexico, Uruguay, and Venezuela. For the year 1995, data refers to 1996 for Chile, Colombia, and Mexico. For the year 2000, data refers to 1999 for Brazil, Ecuador, Honduras, and Paraguay. For the year 2003, data refers to 2001 for Nicaragua and to 2002 for Bolivia and Mexico. For the year 2006, data refers to 2005 for El Salvador and Nicaragua.

4. Data for Argentina and Uruguay are for urban areas only. Each country's urban population represents more than 80% of the total population.. Data from1990 in Paraguay corresponds to the metropolitan Area of Asunción. In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities. Since 2004 the survey is given in a continuous form, this paper uses only the second semester for the years 2004-2006 in order to make it comparable with previous years.

Table A.6 Gini Coefficient for Latin American countries, by political orientation of government (in percent)

			(Countries wi	th New Left go	vernments			
	Argentina a/b/	Bolivia	Brazil	Chile	Ecuador c/	Nicaragua	Paraguay d/	Uruguay a/	Venezuela
1980	39.31								
1981	•••								
1982	•••								
1983									
1984									
1985									
1986	42.17								
1987				56.09					
1988	45.55								
1989								42.36	42.50
1990				55.13			41.30		
1991	46.52								
1992	45.03		60.13	54.67				42.11	41.27
1993	44.43	52.90	59.88			56.33			
1994	45.33			54.88	53.80				
1995	48.13		59.21		56.79		58.38	42.25	46.62
1996	48.56		59.32	54.82				42.76	
1997	48.35	57.99	59.34				56.40	42.78	
1998	50.15		59.17	55.45	49.60	53.78		44.03	47.17
1999	49.09	57.64	58.61		58.76		55.45		46.99
2000	50.43	61.70		55.21				44.34	44.10
2001	52.21	58.47	58.79			50.22	56.92	44.99	46.39
2002	53.26	60.05	58.30				57.18	45.44	47.52
2003	52.79		57.60	54.56	56.50		58.13	44.86	46.21
2004	50.37		56.63		62.83		55.21	46.16	45.41
2005	50.43	58.26	56.40		53.50	52.26	53.90	44.96	47.63
2006	48.29	56.09	55.90	51.80	52.90		54.90	45.99	43.50

				Countries	with other types	of governn	nent		
	Colombia e/	Costa Rica	El Salvador	Guatemala f/	Honduras g/	Mexico	Panama	Peru	Dom.Republic c/
1980									
1981					•••				
1982					•••				
1983									
1984									
1985									
1986									
1987									
1988									
1989						52.64			
1990		44.15							
1991			52.66				55.52		
1992	50.00	44.70			53.61	54.62			
1993									
1994									
1995			49.88				55.13		
1996	55.39		50.97			54.24			
1997		44.97			52.63		56.65	53.72	
1998			53.45			53.58	55.38	55.51	
1999	56.78		51.17		51.10			55.70	
2000	57.20	45.86	51.90	54.54		52.91		49.58	50.49
2001	56.67	50.01	52.52		56.73		56.47	52.90	49.39
2002		49.93	52.34	58.22		50.96	56.45	54.56	49.03
2003	54.47	49.09	49.84		54.24		56.09	52.00	50.94
2004		48.36	48.39	53.23	54.46	50.80	54.82	47.52	50.68
2005		47.32	49.70		56.61	51.05	53.77	47.69	49.78
2006		49.23		53.60	55.28	49.90	54.88	48.95	51.86

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.
Notes:

- 1. The Gini coefficients are estimated on the basis of households' income per capita
- 2. a/ Data correspond to urban areas

- 3. b/ In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities. Since 2004 the survey is given in a continuous form, this paper uses only the second semester for the years 2004-2006 in order to make it comparable with previous years.
- 4. c/ Since 2000 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 5. d/ Data corresponds to the Metropolitan Area of Asunción.
- 6. e/ Since 2001 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 7. f/ Since 2002 change in data collection methods or coverage of surveys complicates comparison with previous years.
- 8. g/ Data from 1992 does not include non-labor income as opposed to the following years.

Table A.7
Extreme poverty (headcount ratios) for Latin American countries, by political orientation of government (in %)

				Countries	with New Left g	overnments			
	Argentina a/ b/	Bolivia	Brazil	Chile	Ecuador c/	Nicaragua	Paraguay d/	Uruguay a/	Venezuela
1980	1.63		•••						
1981									
1982									
1983									
1984									
1985									
1986	2.51								
1987				17.44					
1988	7.10								
1989								2.54	22.50
1990				12.90			11.49		
1991	3.02								
1992	3.75		19.30	9.02				1.86	14.90
1993	4.32	31.45	19.39			18.60			
1994	3.84			7.70	3.42				
1995	6.86		14.31		13.67		21.06	1.74	28.51
1996	8.22		14.96	5.75				1.90	
1997	7.24	43.23	14.83				17.10	1.51	
1998	8.42		13.61	5.66	46.50	17.34		1.81	21.42
1999	8.31	37.31	14.29		20.12		15.51		20.41
2000	9.55	39.85		5.69				1.47	16.31
2001	13.74	37.04	14.56			15.42	15.37	1.33	17.30
2002	27.62	36.55	13.37				21.73	1.93	25.93
2003	20.87		14.20	4.81	26.65		20.06	2.77	31.67
2004	14.69		12.58		22.70		17.09	3.99	25.04
2005	12.18	36.69	10.11		21.83	14.78	15.46	3.50	21.90
2006	8.61	37.58	9.38	3.40	16.93		20.91	1.86	13.45

	Countries with other types of governments								
	Colombia e/	Costa Rica	El Salvador	Guatemala f/	Honduras g/	Mexico	Panama	Peru	Dom.Republic c/
1980	***								***
1981									
1982									
1983									•••
1984									•••
1985									
1986									
1987									
1988									
1989									
1990		9.86							
1991			32.07				25.62		•••
1992		10.34			63.89	22.44			
1993									•••
1994									
1995			20.81				20.29		
1996	16.75		25.73			36.88			•••
1997		6.69			50.03		19.03	18.07	•••
1998			22.49			33.86	18.74	17.13	
1999	18.98		20.97		56.82			17.74	
2000	21.86	7.72	20.37	15.69		24.13		14.87	8.99
2001	20.13	6.77	19.21		60.17		20.66	24.23	8.24
2002		6.87	19.24			19.97	16.87	23.79	10.02
2003	18.28	6.49	17.76		49.76		16.33	20.87	11.83
2004		6.59	14.53		41.52	17.39	15.10	17.16	14.78
2005		6.07	16.01		46.03	18.24	14.33	17.42	10.05
2006		5.95		15.22	35.77	13.76	15.00	16.24	8.82

Source: author's own elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/.
Notes:

- 1. Estimates based on each country's extreme poverty line.
- 2. a/ Data correspond to urban areas.

- 3. b/ In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities. Since 2004 the survey is given in a continuous form, this paper uses only the second semester for the years 2004-2006 in order to make it comparable with previous years.
- 4. c/ Since 2000 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 5. d/ Data corresponds to the Metropolitan Area of Asunción.
- 6. e/ Since 2001 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 7. f/Since 2002 change in data collection methods or coverage of surveys complicates comparison with previous years.
- 8. g/ Data from 1992 does not include non-labor income as opposed to the following years.

Table A.8
Poverty (headcount ratios) for Latin American countries, by political orientation of government (in %)

	Countries with New Left governments								
	Argentina a/b/	Bolivia	Brazil	Chile	Ecuador c/	Nicaragua	Paraguay d/	Uruguay a/	Venezuela
1980	9.10								
1981									
1982									
1983									
1984									
1985									
1986	13.82								
1987				45.13					
1988	31.80								
1989								26.32	56.56
1990				38.61			39.79		
1991	21.36								
1992	19.73		41.03	32.84				20.13	45.03
1993	18.33	60.77	41.52			50.53			
1994	20.15			27.99	11.99				
1995	26.64		33.59		39.21		39.63	17.77	62.46
1996	29.43		33.52	23.23				17.63	
1997	27.74	65.10	33.88				32.25	17.54	
1998	30.08		32.25	21.69	76.11	47.85		17.30	52.30
1999	30.51	62.64	33.88		52.18		33.73		50.70
2000	32.61	65.96		20.63				17.77	43.18
2001	38.43	64.01	33.55			45.81	33.82	18.80	46.38
2002	57.48	64.27	32.87		•••		46.37	23.64	56.97
2003	48.14		33.61	18.97	49.90		41.37	30.85	64.31
2004	39.87		32.00		44.36		39.16	32.10	57.50
2005	33.97	59.63	27.72	•••	42.75	46.02	38.21	29.39	50.69
2006	26.73	59.76	26.01	14.12	37.65		40.27	27.17	40.03

	Countries with other types of government									
(Colombia e/	Costa Rica	El Salvador	Guatemala f	/ Honduras g/	Mexico	Panama	Peru	Dom.Republi c/	
1980							***			
1981										
1982										
1983										
1984										
1985										
1986										
1987										
1988										
1989										
1990		30.66								
1991			65.70				45.16			
1992		33.15			79.88	53.86				
1993										
1994										
1995			53.75				37.81			
1996	56.62		57.67			68.77				
1997		23.86			72.29		37.14	42.58		
1998			50.38			64.00	37.09	42.03		
1999	59.94		47.28		75.87			46.47		
2000	64.15	23.96	45.17	56.19		53.61		48.55	27.70	
2001	64.62	22.87	44.14		77.53		39.82	54.66	27.69	
2002		23.51	43.00			49.98	36.67	54.00	28.04	
2003	64.19	21.35	42.93		71.36		35.59	52.58	35.25	
2004		23.89	39.98		63.16	47.21	34.75	48.65	41.67	
2005		23.81	42.21		67.15	47.04	33.92	48.68	33.89	
2006		22.78		51.02	58.60	42.62	33.13	44.66	31.03	

Source: Author's elaboration based on SEDLAC (CEDLAS and the World Bank). For more information see: http://www.depeco.econo.unlp.edu.ar/cedlas/sedlac/. Notes:

- 1. Estimates based on each country's poverty lines.
- 2. a/ Data corresponds to urban areas.
- 3. b/ In Argentina the household survey was administered in October each year from 1980-2003. For Argentina, surveys from 1980-1991 covered only Gran Buenos Aires; surveys from 1992-1997 covered only 15 cities, and surveys from 1998-2003 covered 28 cities. Since 2004 the survey is given in a continuous form,

this paper uses only the second semester for the years 2004-2006 in order to make it comparable with previous years.

- 4. c/ Since 2000 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 5. d/ Data corresponds to the Metropolitan Area of Asunción.
- 6. e/ Since 2001 changes in data collection methods or coverage of surveys complicates comparison with previous years.
- 7. f/ Since 2002 change in data collection methods or coverage of surveys complicates comparison with previous years.
- 8. g/ Data from 1992 does not include non labor income as opposed to the following years.

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