POLICIES FOR REDUCING INCOME INEQUALITY: LATIN AMERICA DURING THE LAST DECADE

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Executive Summary

In most Latin American countries, income inequality rose steadily during the 1980s and 1990s, and declined from 2002 to 2007. This paper analyzes the factors that could explain the changes in income inequality from 1990 to 2007, by focusing on external shocks and changes in domestic policies. Particular reference will be made to macroeconomic, educational and social policies introduced during recent years, and to the impact of the election of an increasing number of left-of-centre governments which have come to power during the last decade. The paper tests econometrically the importance of all these factors on data for 18 countries from 1990 to 2007. On the basis of this model, the paper estimates the income inequality level for the crisis years 2008 and 2009. The results suggest that a continuation of fiscally prudent distributive and redistributive policies, which have emerged in much of the region in the 2000s, should preserve most of the income inequality gains recorded in recent years.

Introduction

From the mid-to-late 1990s, Latin America witnessed profound economic, political and distributive changes. During the 1990s, the region experienced slow growth followed by the 'lost half-decade' of 1998-2002. However, from 2003 to 2008 Latin America experienced an unprecedented expansion which generated an average GDP growth of 5.5 percent a year, second only to the growth registered from 1967 to 1974 (Ocampo 2008). Such steady expansion was, to some extent, a rebound from the stagnation recorded during the "lost half-decade" of 1998-2002, but featured also a sharp increase in investment rates which grew by 5 GDP points relative to 2002. However, from the third quarter of 2008, Latin America was affected by the global financial crisis which is expected to reduce GDP by 1.9 percent and produce a moderate growth of 3.4 percent in 2010 (CEPAL 2009). A second important change concerns income distribution. Contrary to the adverse distributive trends observed in the 1990s, between 2003 and 2007, income inequality declined in the vast majority of the countries of the region. Finally, since the mid 1990s, the region has also experienced a steady shift towards democratization and the election of Left-of-Centre (LOC) governments (Panizza 2005)[1]. As underscored by the election in mid March 2009 of Mauricio Funes in El Salvador, during the last decade the region's political centre of gravity has shifted with surprising regularity towards regimes which attribute greater importance to social issues while avoiding the populist excesses of the 1980s. However, the recent coup in Honduras, the election of a centre-right president in Panama in July 2009, and the poor results of the *Justicialista* Party of President Fernandez during the July 2009 parliamentary elections in Argentina, may signal that such a trend has reached its peak.

To what extent are these changes explained by shifts in external economic conditions, and to what extent are they instead the result of the adoption of new economic and social policies in the region, especially those adopted by LOC countries? To what extent are the distributive improvements recorded since 2003 likely to be overturned by the present crisis? These are the main issues explored in this paper. Section 1 reviews the recent decline in income inequality. Section 2 discusses the factors that could explain it, i.e. improved external conditions, a positive business cycle, a fall in educational inequality, and changes in macroeconomic, labor and social policies. Section 3 tests econometrically the relative importance of these factors, while Section 4 analyzes the impact of the financial crisis and uses the econometric model estimated in Section 3 to predict the inequality changes that may be expected in 2008 and 2009.

1. The Latin American Income Distribution in Historical Perspective

With the exception of Uruguay and Argentina, in the early-to-mid 1950s, Gini coefficients in Latin America ranged between 0.45 and 0.60, among the highest in the world (Altimir 1996). This acute income polarization was rooted in an unequal distribution of land, industrial

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[1] In the following analysis the LOC group comprises countries which were ruled for at least four of the six years spanning 2002-2007 by left-of centre regimes. The countries responding to this criterion are: Argentina, Brazil, Chile, Costa Rica, Ecuador, Panama, Uruguay, and Venezuela.

assets and educational opportunities that benefited a tiny agrarian, mining and commercial oligarchy. The rapid GDP growth which followed the adoption of the import substitution strategy in the 1950s and 1960s had, on average, a disequalizing impact. In the 1970s, however, inequality declined moderately in most of the region except for the Southern Cone (Altimir 1993, Gasparini et al 2009), where an extreme version of neo-liberal reforms had been implemented by the *juntas*. The combination of a rise in inequality over the 1950s-1960s, and a decline over the 1970s, meant that by 1980 all medium-to-large Latin American countries had a higher income concentration than in the early-to-mid 1950s.

During the 'lost decade' of the 1980s, inequality in Latin America was affected by the 1982-84 world recession, the debt crisis, a large decline in commodity prices, and the recessionary adjustments introduced to respond to these shocks. Altogether, the 1980s were characterized by regressive distributive outcomes, as income inequality fell only in 3 countries (Colombia, Uruguay and Costa Rica) out of 11 with available data (Altimir, 1996). Despite the return to moderate growth and the extensive liberalization of the external sector, income polarization did not decline during the 1990s, and in half of the cases it worsened further if at a slower pace than in the 1980s (Gasparini et al.2009, and Figure 1). A review of inequality changes over the 1990s, based on 76 standardized surveys for 17 countries covering 90 percent of the regional population, shows that inequality rose in 10 countries and stagnated or declined in 7 (Székely 2003). The worsening was particularly acute during the "lost half-decade" of 1998-2002.

One of the key features of the rise in income inequality was a decline in the labor share in total income and a parallel rise in the capital share. For instance, between 1980 and the late 1980s, the labor share declined by 5-6 percentage points in Argentina, Chile and Venezuela and by ten in Mexico. These trends were not reversed during the mild recovery of 1991-98. In several countries, such as Chile during the military dictatorship, the fall in the labor share was due, *inter alia*, to the relaxation of norms on workers dismissals, a restriction of the power of trade unions, the suspension of wage indexation, a reduction of public employment and the coverage of the minimum wage, as well as to the reduction or elimination of wealth, capital gains and profit taxes. From an analytical perspective, the fall in the labor share can be decomposed into five components. First, sluggish growth resulting from a slowdown in jobs creation (Tokman 1986). Second, informal employment became more common. Third, formal sector wages evolved less favorably than GDP per capita. Fourth, the minimum wage fell in relation to the average wage. Fifth, wage differentials by skill widened, particularly during the 1990s, in parallel with widespread trade liberalization (Székely 2003).

In contrast to the trends observed in the 1980s and 1990s, during the 2000s income inequality fell in most of the region, particularly after 2002. Figure 1 shows that during this time, income inequality declined in 7 of the 8 LOC countries and in 7 of the 10 centre-right regimes. These results are confirmed by a study by Gasparini et al. (2009) that shows that inequality declined between the early 2000s and the mid 2000s in 14 of 17 countries analyzed, with the exception of Colombia, Nicaragua and Honduras. While the average regional decline in the Gini coefficient was 2-3 points, in countries ruled for most of the 2002-2007 period by LOC governments, the drop was more pronounced. Lustig (2009) arrives at a similar conclusion, noting that the decline among the LOC countries was faster than the decline among the NO-LOC centre-right regimes. She notes also that among LOC countries, the decline was more pronounced among the 'populist' than among 'social-democratic-left' regimes. The recent drop in inequality was also

characterized by greater convergence at a lower level of inequality, a trend opposite to that experienced during the prior two decades, when the countries' Gini coefficients converged at a higher level of inequality[2]. Finally, Figure 1 suggests that the decline in inequality from 2003 to 2007 was greatest in those countries which experienced the largest increases from 1990 to 2002.

Figure 1: Changes in the Gini coefficients of the distribution of household income per capita, between 1990 and 2002 (light blue bars), and between 2003 and 2007 (dark blue bars) in LOC vs. NO-LOC countries.

■ 2002 - 1990   ■ 2007 - 2003
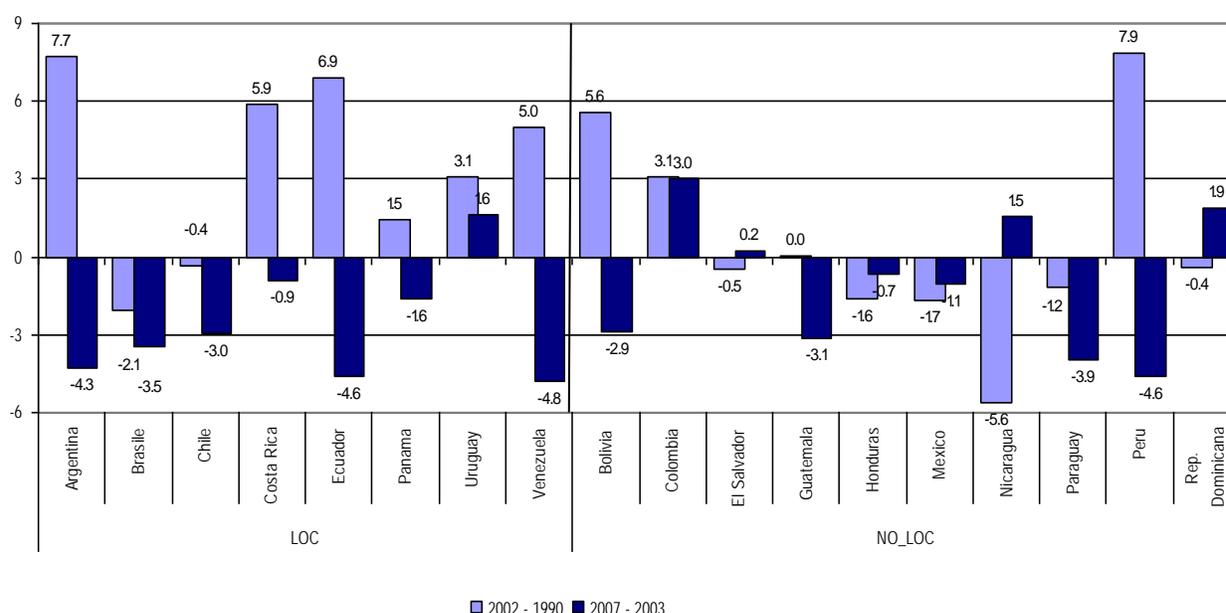
Source: authors' elaboration on the SEDLAC (2007) data and other data when SEDLAC data are missing. Note: Countries are assigned to the LOC group if a progressive government has ruled for at least 4 years between 2002 and 2007.

2. Factors Explaining the Changes in Income Inequality from 1990 to 2007

2.1. External shocks

(i) Terms of trade gains

During the 1990s, the international terms of trade of the region (2000=100) followed the business cycle, with declines during 1990-93, and the 1998-99 and 2000-02 crises. Since the beginning of the new century, the rapid growth of Asian countries exerted a favorable impact on the exports and economic performance of Latin America. In 2006, China alone accounted for a third of world coal, iron ore and aluminum consumption, a quarter of world copper consumption, and a large share of the world imports of agricultural commodities. The pull effect

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[2] Gasparini et al (2009) show that the coefficient of variation of national Gini coefficients fell from 0.10 to 0.07 over 1992-2006.

of Asian economies resulted in a rapid growth of Latin America's exports. As a result, the region's export/GDP ratio rose from 13 to 24 percent on average between the 1990s and 2007. The rapid increase in the value of exports was due to significant improvements in both export prices and volumes, with the highest increases recorded in energy and agricultural products such as vegetable oils, flour and seeds (CEPAL 2007). As a result, in 2007, the regional terms of trade index exceeded by 33 percent its average level of the 1990s, generating a positive yearly shock of 3.7 percent of the regional GDP between 2003 and 2007 (Ocampo 2008). In the five main oil-metal exporting Andean countries (Bolivia, Chile, Ecuador, Peru and Venezuela) the terms of trade gains from 2003 to 2007 were massive and generated a positive shock of between 7 and 15 percent of GDP (Ocampo 2009).

However, these improvements in the terms of trade hide varying situations within the region. For instance, between the 1990s and 2007, the terms of trade index rose by 52 percent for South America (thanks to the huge gains recorded by the Andean countries), 21 percent for Mexico, and 13 percent for Mercosur, but fell by 13 percent in Central America, a region which depends on imported energy (CEPAL 2007). Of the countries adversely affected by the recent terms of trade changes, a subset (Paraguay, Uruguay, Panamá and Nicaragua) remained specialized in the export of traditional agricultural commodities. A second group (Costa Rica, El Salvador, Guatemala, and Honduras) switched to the export of textiles and growing emigration (Perez Caldentey and Vernengo 2007).

What was the inequality impact of the recent changes in terms of trade and export volumes? A partial equilibrium analysis would suggest that, given the high concentration of ownership of land and mines (where the presence of TNCs[3] is very important) in the region, the gains in terms of trade likely generated, *ceteris paribus*, a disequalizing effect on the functional and size distribution of income. Indeed, production in these sectors is very land, resource and capital-intensive, and has a limited employment generation capacity[4].

Changes in international terms of trade also affect income inequality via changes in tax and non tax revenue. If mining and oil rents accrue to the state (as in Bolivia) either as an owner or in the form of royalties, an improvement in terms of trade raises government non-tax revenue in line with the increases in international prices. In addition, with a constant 'government tax effort', a rise in the international prices of exported goods generates an expansionary effect on income and consumption, which generate greater direct and indirect tax revenue. Due to this effect and to tax buoyancy, the tax/GDP ratio therefore rises. The tax/GDP ratio may also increase further if governments intensify their 'tax collection effort'.

What does the empirical evidence for Latin America show about the relation between terms of trade and tax and non-tax/GDP ratio? The top-left panel of Figure 2 suggests that there is a strong association (r= 0.97) between average regional terms of trade and average regional tax/GDP ratio. Yet, such aggregate relation hides more than it reveals. Indeed, when looking at country data for the 18 Latin American countries analyzed in this paper the relation appears

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[3] An important part of the commodity price increase left the region in the form of profit remittances, as the exploitation of natural resources in Latin America is often in the hands of TNCs. Chile and Peru account for over half of the regional outflow of profit remittances, though they account for only 8 percent of the region's GDP.
[4] For instance, in Argentina, agriculture accounts for a modest 8 percent of the total labor force.

much weaker (r=0.18) (top-right panel). The situation does not improve if the sample is restricted to the eight main commodity exporters (bottom-left panel), but improves (0.39 for 1990-2007, 0.63 for 2003-07) when considering the impact of terms of trade changes on <u>non-tax revenue</u> for these countries between 2003 and 2007. Overall, there is only limited evidence that gains in international terms of trade raised tax/GDP ratios. The impact on income inequality (which could derive from the distribution of a greater amount of rents via the budget) does not seem strong. In addition, the impact of such redistribution is not automatic, as it depends on the incidence of transfers carried out with the additional revenue. In contrast, it is likely (see Figure 4) that the main distributive effect of terms of trade takes place via the increase in GDP growth.

Figure 2: Average international terms of trade and tax revenue/GDP ratio, Latin America, 1990-07)
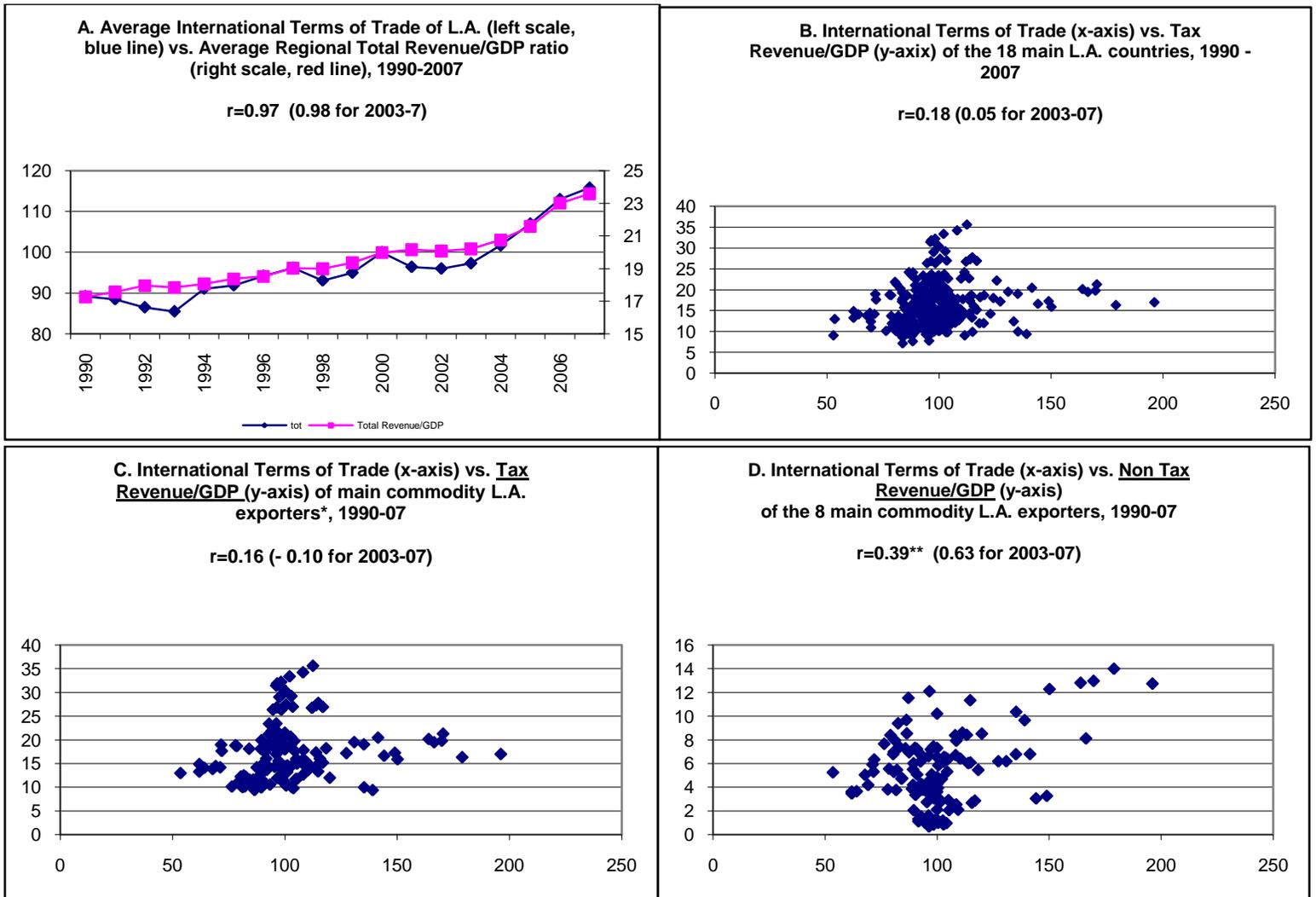
Source: authors' elaboration on the basis of the ECLAC's BADECON database. Notes: Tax revenue does not include non-tax revenue (such as royalties) which accrues to governments. Notes: * Argentina, Bolivia, Brazil, Chile, Ecuador, Mexico, Peru, and Venezuela; **r=0.56 without Argentina and Brazil.

Thus, in the absence of a CGE model, the general equilibrium effects of the commodity boom on income inequality are difficult to map out. Improvements in the balance of payments do relax the foreign-exchange constraint to growth and may stimulate production in labor

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intensive industries with the effect of reducing income inequality. The effect via tax and non-tax revenue seems limited. An equalizing effect could occur via a reduction in interest rates (due to the expansion in money creation from abroad induced by growing export receipts) which favors firms and households, and penalizes banks and rentiers. Yet, commodity booms also can produce 'Dutch Disease' effects which slow growth in the non-commodity traded sector, with the possible effect of increasing income inequality, as many low-income people work in the traded sector of the economy. All in all, while it is plausible that the recent commodity bonanza had a favorable effect on growth, the impact on inequality is undetermined as it depends to a large extent on the use of the additional resources.

(ii) Migration and migrant remittances

Traditionally, emigration has not played a central role in promoting growth in developing countries. Yet, with the increasing integration of the world economy, the fertility decline and aging of the population of the OECD countries, and the lowering of migration costs, remittances have emerged as a possible growth driver in some developing nations. While the relation between migration and development remains controversial, remittances' weight in GDP and the current account balance has risen over time. In 1990, migration played a limited role in Latin America. However, they grew from 1.12 % of the regional GDP in 1990, to 6.71% in 2007 (USAID 2008).

The sharp increase of remittances over the last decade benefitted in particular Central America, the Caribbean countries, Mexico and Ecuador. The surge in migration and remittances occurred mainly during the crisis years of 1998 and 2003, though it did not decline during the boom years of 2003-2008. Official remittances to the region increased from US$ 2 to 59 billion dollars, or from 0.23% to 2% of regional GDP between 1980 and 2006 (Table 1). In 2007, they accounted for 2.3 percent of the regional GDP (CEPAL 2007) but for over 11 percent in Central America, 2.8 percent in Mexico and about 20 percent in Grenada, Guyana and Jamaica. Interestingly, with the exception of Ecuador and Uruguay, remittances played a greater role in countries which did not experience terms of trade gains, meaning that Latin American countries support their current balance by exporting either primary commodities or migrant labor, and only a modest amount of manufactured goods.

Table 1: Remittances/GDP in countries affected by positive and negative terms of trade

	1980-1990	1991-2001	2002-2006
Countries that recently experienced <u>favourable</u> terms-of-trade effects			
Argentina	0.1	0.2	0.4
Bolivia	2.0	2.2	2.5
Colombia	1.5	1.9	3.3
Ecuador	0.6	3.5	6.5
Peru	0.8	1.6	2.1
Venezuela	-0.4	-0.2	-0.1
Mexico	1.0	1.2	2.4
AVERAGE	0.7	1.3	2.1
Countries that recently experienced <u>unfavourable</u> terms-of-trade effects			
Dominican Republic	4.4	8.7	11.4
El Salvador	8.8	14.0	15.9
Guatemala	1.5	1.9	10.5
Honduras	3.6	8.1	20.5
Nicaragua	5.5	10.0	14.5
Paraguay	…	1.9	2.9
Uruguay	0.2	0.3	0.8
AVERAGE	3.6	4.9	8.8

Source: Adapted from Perez Caldentey and Vernengo (2008).

For the above group of countries, one may be tempted to establish a causal link between rising remittances and falling inequality. Yet, the literature on the inequality impact of remittances suggests that their short and medium term effect tends to be disequalizing. Indeed, in developing countries only middle-class persons are able to finance the high costs of illegal migration. As a consequence, the remittances will accrue not to the poor, but mainly to middle-income groups. In addition, in the countries of origin, the migration of skilled workers tends to raise their wage rate in relation to that of unskilled workers. The final distributive effect depends on how the families of migrants receiving remittances share them with low income families. In addition, remittances may reduce inequality over the long term, if the creation of migrant networks reduces migration costs, thus making migration accessible to low income/unskilled people as well. The long term inequality impact of migration depends also on whether it triggers a brain drain, brain gain, or brain waste. The cross country evidence (IMF 2004) shows that remittances raise current consumption, reduce volatility and improve the creditworthiness of the countries of origin, but do not have a significant impact on the investment rate and GDP growth. In light of all this, one would not expect that migrant remittances played a central role in reducing income inequality, either directly or indirectly.

(iii) Availability of external finance

Between 2004 and 2008, the region recorded a rebound in capital inflows after their decline in the early 2000s. The increase in capital inflows between 2002 and 2007 amounted to 2.4 percent of the region's GDP (Ocampo 2008). Portfolio flows to the private sector accounted for most of this increase. The cost of such funds dropped markedly with the decline of country spreads, i.e.

from a regional average of 11.5 percent in May 2004, to less than 7 percent in May 2007, and 7.3 percent in May 2008. This financial exuberance affected the region in several ways (Ocampo 2009): first, the decline in international interest rates exerted a downward pressure on domestic interest rates; second, capital inflows led to an appreciation of the nominal exchange rate; third, portfolio inflows mainly consisted of purchases of shares and securities, generated a boom in regional stock markets and, as a result, the stock market capitalization of the 7 largest regional economies quadrupled in value between mid-2004 and the end of 2007 (*ibid*); fourth, the inflows facilitated the accumulation of international reserves which reduced country spreads on international loans. In contrast, the FDI stock stagnated at 22 percent of the region's GDP, after having risen from 8 to 22.6 percent of GDP between 1995 and 2002 as a result of several foreign acquisitions of privatized state assets (Unctad 2008).

Also in this case, it is difficult to trace the general equilibrium effect of the 2004 to 2007 financial exuberance on inequality. As in the case of rising terms of trade gains and remittances, it is likely that these inflows affected growth (and therefore employment and inequality) indirectly, via the relaxation of the balance of payments constraint. Yet, financial exuberance also caused an appreciation of the nominal exchange rate in the majority of countries from May 2006 to September 2008 (Ocampo 2009). Such trends penalized the labor-intensive traded sector and, with it, the distribution of income (Taylor 2004). As for the direct effect, increased availability of finance benefitted mainly large capital- and skill-intensive companies and banks while it did not ease the problems of access to credit by labor-intensive small and medium enterprises, possibly inducing in this way adverse distributional effects.

2.2. Business cycle effects

From the end of 2002, the region recorded a strong recovery thanks to favorable external conditions, better policies (see later) and improved domestic conditions. Growth of GDP/c doubled in the 1990s and from 2002 to 2007 in South America, and rose by half a point in Central America. Only a few countries (such as Chile, which enjoyed Tiger-like growth in the 1990s) did not improve their performance. While all countries recorded positive performance, growth was on average 2 percentage points higher in LOC countries than in NO-LOC ones (Figure 3).

Figure 3: Macroeconomic & growth performance of LOC vs. NO-LOC governments, 2003-07
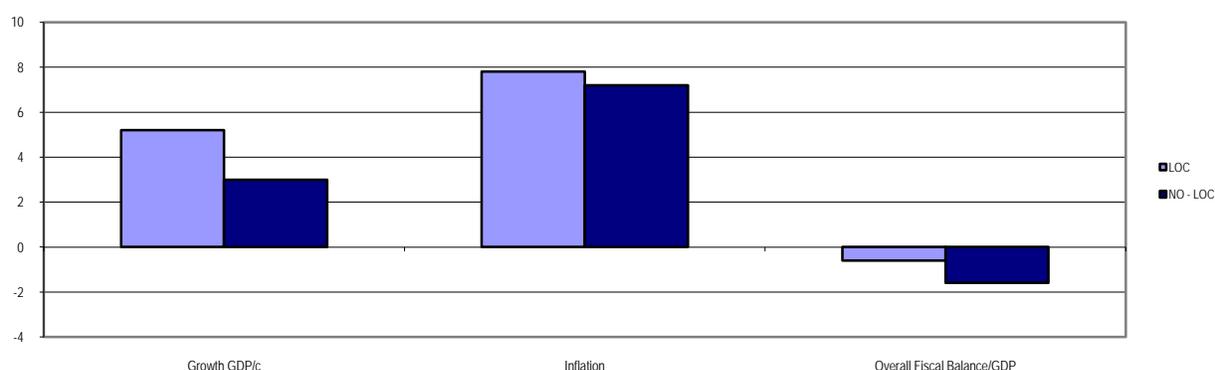
Source: Authors' elaboration based on ECLAC's Badecon for the growth of GDP/c and overall fiscal balance/GDP, and IMF's World Economic Outlook 2008 Database for inflation. Note: The inflation rate of LOC countries would

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be 6.6 % (i.e. lower than the NO-LOC countries' average) if Venezuela (which recorded an average inflation of 21% during this period) is excluded.

Economic theory suggests that in developing countries an increase in GDP/c improves labor absorption and, under certain conditions, the wage rate, with positive distributive effects. In contrast, a GDP contraction raises inequality as wages drop and redundant workers are not covered by unemployment insurance. The evidence in Figure 4 on Latin America confirms this view and shows that, on average, a 1 percent yearly increase in GDP/c over the cycle (which has an average duration of 4-6 years) reduces the Gini coefficient by 0.12 percentage points, thus confirming the prediction of the above theory. Yet, a decline in inequality following a return to growth is of course far from automatic, as growth patterns c a n b e pro-poor, neutral or immiserizing.

Figure 4: Percentage changes in Gini coefficients (y-axis) versus percentage change in GDP/c (x-axis) over the business cycle in 18 countries, 1990-2007

$y = -0.1222x + 0.0026$
$R^2 = 0.0474$
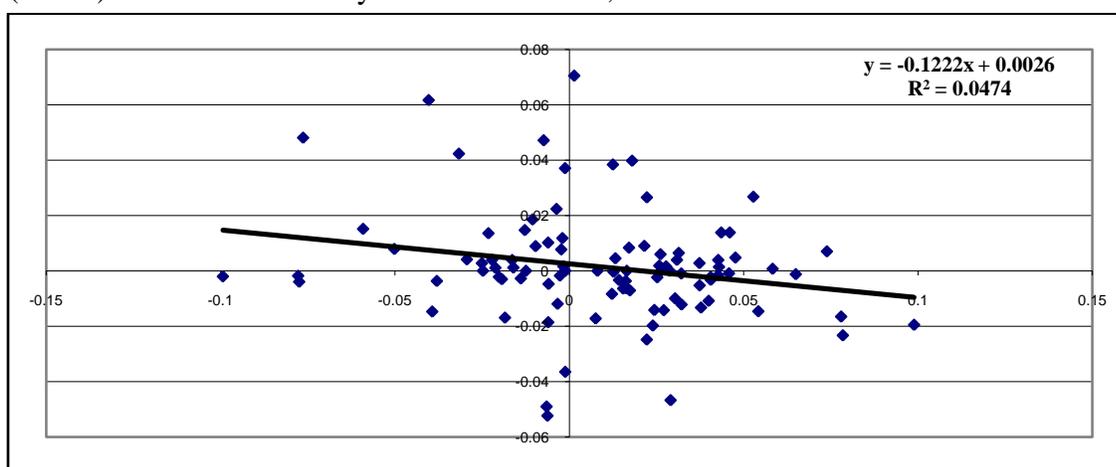
Source: authors' elaboration

The evidence would thus suggest that the recovery recorded from 2003 to 2007, as well as the labor policies discussed in section 2.4, generated a positive effect on employment and the distribution of wages. As shown in Table 2, from 2002 to 2007, the unemployment r a t e dropped by 5.3 points in LOC countries and 2 points in NO-LOC countries. Over 5.3 million new jobs were created each year in the region, i.e. at a much greater rate than during the previous decade. The new jobs were mainly taken by low–income groups, contributing significantly to the drop in inequality.

Table 2: Labour market trends for LOC and NO-LOC countries in Latin America, 1990-2007

Country groups	Variables	1990	2002	2007
LOC countries	Unemployment rate (%)	8.9	13.2	7.9
	Share of informal employment	40.5	38.9	38.1
	average wage index (2000=100)	92.2	98.6	103.4
	Minimum wage index	86.1	100.4	138.6
NO-LOC countries	Unemployed	8.5	10.0	8.0*
	Share of informal employment	48.5	53.7	49.2
	Average wage index** (2000=100)	79.5	102.2	102.0
	Minimum wage index (2000=100)	104.1	104.2	109.9

Source: authors' compilation on ECLAC's Badenso database and ECLAC's 2008 Panorama Social, ILO's Labour Overview (various years), and data from national statistical offices for the initial and last years. **Notes: *** Guatemala is not included in the average for 2007; the Dominican Republic and Honduras are not included at all due to lack of data.

2.3. An improvement in the distribution of educational achievements

Another factor that might have contributed to the recent fall in income inequality is the rise in enrolment rates recorded at all educational levels since the early-to-mid 1990s (Gasparini et al. 2009), and the subsequent reduction in enrolment inequality in primary and secondary education. For instance, the probability that a child from the bottom decile completes secondary education in relation to that of a child from the top decile rose from 36.7 to 50 percent between 1990 and 2005 (CEPAL 2007a)[5]. The surge in enrolments raised also the average number of years of education of the working population.

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[5] However, during the same period, the gap between rich and poor in accessing tertiary education widened.

Figure 5: Percentage changes in average years of education of the adult population and the Gini of educational achievements between the mid 1990s and the mid 2000s in 18 Latin American countries
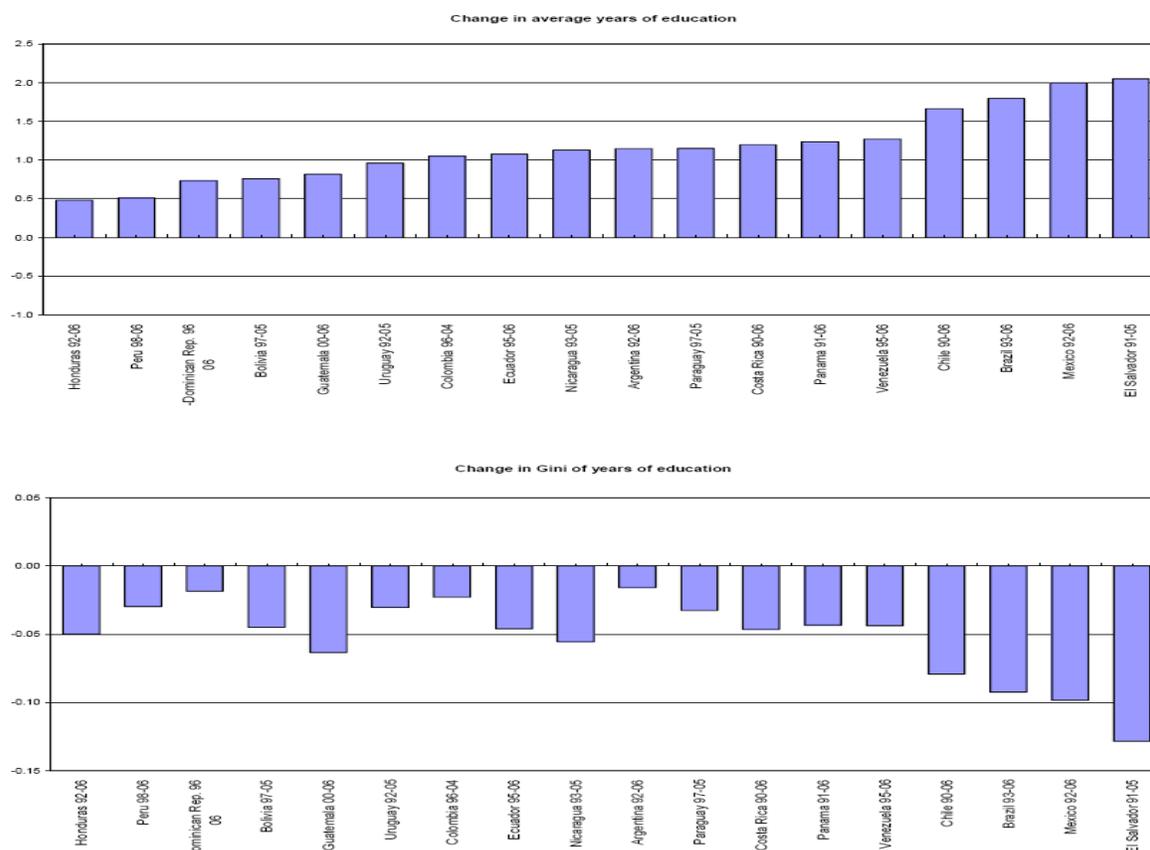
Source: Gasparini et al (2009).

Figure 5 provides evidence of the gains that were recorded under both LOC and NO-LOC regimes. All in all, the countries of Latin America made substantial inroads in the field of human capital formation and in reducing many dimensions of inequality in education. Yet, the effect of these trends on current and future inequality are not automatic, as an expansion of the stock of human capital leads to an increase in employment and drop in wage inequality only if additional jobs are created. In this regard, an IPEA study (cited in CEPAL 2006) decomposed the fall in inequality observed in Brazil between 2000 and 2006 and concluded that two thirds of the decline was due to a fall in labor incomes inequality caused by a drop in educational inequality among workers and in wage premium by education level.

2.4. Recent policy approaches

Latin America has been for long a symbol of authoritarian political systems, unequal distribution of assets, and limited redistribution by the state. However, during the last twenty years, the political landscape has been dominated by a steady drive towards democratization and, starting from the mid-late 1990s, a steady shift in political orientation towards LOC regimes. As

documented by the results of different waves of the Latinobarometro[6], such shift was to a large extent, explained by growing frustration with the poor results of the Washington Consensus policies implemented in the 1980s and 1990s. Among other things, such policies caused a shrinkage of the industrial working class, a weakening of the unions, rising unemployment, and a substantial enlargement of the informal sector and self-employment. The shift away from such an approach began with the election in 1990 of the centrist Patricio Alwyn in Chile, but intensified in the 2000s (Table 3). Figure 6 shows that in mid 2009, of the 18 Latin American countries analyzed, only three countries (including Colombia and Mexico) were run by centre-right governments.
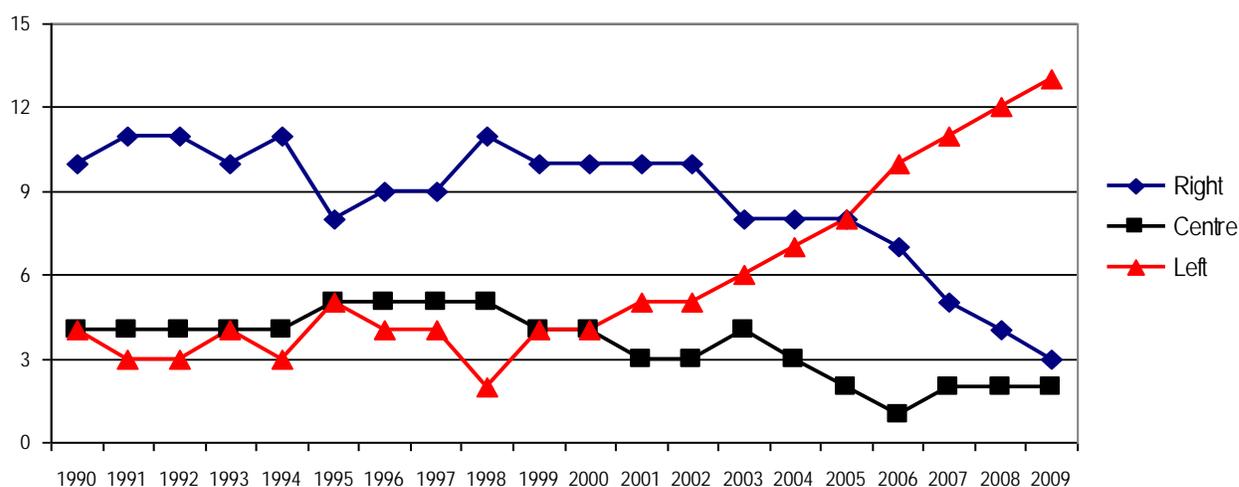
Table 3: Changes in political orientation in 18 Latin American countries, 1999-2000

Country	President	Party	Assumed office
Chile	Ricardo Lagos Michelle Bachelet	*Partido Socialista de Chile* *Partido Socialista de Chile*	11-3- 2000 11-3- 2006
Venezuela	Hugo Chávez	*Movimiento Quinta República* *Partido Socialista Unido de Venezuela,*	2-2-1999 3-12-2006
Brazil	Luiz Inácio 'Lula' da Silva	*Partido dos Trabalhadores*	1-1-2003 1-1-2007
Ecuador	Lucio Edwin Gutiérrez Borbúa Rafael Correa	*PSP (Patriotic Society Party)* *Alianza PAIS (Patria Altiva I Soberana)*	15-1-2003 20-4-2005 15-1-2007
Argentina	Nestor Kirchner Cristina Fernández de Kirchner	*Partido Justicialista* *Partido Justicialista*	25-5-2003 10-12-2007
Panama*	Martin Torrijos	*Partido Revolucionario Democratico*	2-5-2004
Uruguay	Tabaré Vásquez	*Frente Amplio*	1-3-2005
Bolivia	Evo Morales	*Movimiento al Socialismo*	22-1-2006
Costa Rica	Oscar Arias	*Partido Liberacion Nacional*	8-5-2006
Nicaragua	Daniel Ortega	*Frente Sandinista de Liberación Nacional*	10-1-2007
Guatemala	Álvaro Colom Caballeros	*Social-democratic National Union of Hope*	14-1-2008
Paraguay	Fernando Lugo	*Alianza Patriótica por el Cambio, APC*	15-8-2008
El Salvador	Carlos Mauricio Funes Cartagena	*Farabundo Martí National Liberation Front)*	1-6-2009

Source: authors compilation on the basis of national sources as reported by Wikipedia. Notes: * on 2 July 2009 Ricardo Martinelli, of the right-of-centre Democratic Change party was elected and replaced Martin Torrijos.

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[6] Corporación Latinobarómetro is a non-profit NGO based in Santiago, Chile. Since 1995 it carries out public polls on economic and political topics by means of sample surveys of 19,000 households based in 18 countries of Latin America accounting for 400 million people (http://www.latinobarometro.org).

Figure 6: Changes in political orientation in 18 Latin American countries, 1990-2009

As noted by Panizza (2005) and Lustig (2009), such regimes vary substantially among each other. Some of the LOC regimes now dominating the region can be defined as social-democratic, as in is the case of Chile's Partido Socialista, Uruguay's Frente Amplio and Brazil's Partido dos Trabalhadores (*ibid,* see also Lustig 2009). These parties have their roots in organizations of the working class, but have evolved into broad coalitions comprising sectors of business and the middle classes, the urban and rural poor, the unemployed and those working in the informal sector. They have abandoned any notion of revolutionary break in favor of electoral politics and respect for the institutions of liberal democracy. In contrast, a second group of countries (such as Argentina and Ecuador) developed left-nationalist platforms, while Venezuela, Bolivia and Nicaragua are characterized by a radical left-populist approach entailing a redistribution of assets both nationally and internationally.

Matters of social justice and economic development are at the core of the new LOC parties' identity. However, in the pursuit of such objectives, the LOC parties avoided the ill-conceived approach to budget deficits and inflation typical of the heterodox-populist policies of the 1980s (Dornbusch and Edwards, 1991). In fact, the LOC economic model incorporates into its paradigm some liberal policies such as a sound fiscal policy and low inflation, an awareness of the inefficiencies associated with some forms of state intervention and protectionism, the primacy of the market in setting prices, regional trade integration and openness to foreign investment. At the same time, its concern for poverty and inequality, recognition of market failures and the increasing importance assigned to strengthening state institutions are in sharp

contrast with the neo-liberal emphasis on shrinking the state and the self-sustained role of the markets (Panizza 2005).

LOC governments have thus developed a new economic paradigm and social contract that binds together their traditional and emergent constituencies through a combination of macroeconomic stability, neo-corporatist and participatory institutions, redistribution via taxation and targeted social programs (Panizza 2005a). There are, however, built-in tensions within the new social contract. For instance, tension exists between the fiscal and monetary constraints required to maintain macroeconomic stability, and the demands for higher public investment and social spending. In addition, in some cases (such as Brazil), macroeconomic stability was achieved by means of high interest rates and primary surpluses, which dampened economic growth and favored financial rents over public investment. The main components of the new LOC model are reviewed hereafter.

(i) Macroeconomic policies

With some country variation, the measures introduced are broadly aligned with the 'pro-poor macroeconomics' paradigm (Cornia 2006). Its key elements are:

A fiscal policy aiming at balancing the budget in the context of an expansionary expenditure policy

Traditionally, Latin America adopted pro-cyclical macroeconomic policies that boost growth during periods of external buoyancy, but build up vulnerabilities which explode when the favorable conditions disappear. This stance has partially changed over the recent decade. A decline in the budget deficit was targeted in all countries, despite an increase in public expenditure, with LOC countries achieving better results than NO-LOC countries (Figure 3). Overall, fiscal deficits have typically been reduced below one percent of GDP (much lower than the EU and US) and in several cases were turned into surpluses. As a result, in 2006 and 2007 the average central government budget for the region as a whole was in equilibrium. This suggests a shift towards countercyclical fiscal management (Ocampo 2007). A 'strong version' of such policy, which requires the extra revenue collected during upturns to be saved and used to support public expenditure during bad years, was followed in Chile, Peru and Argentina. A 'weak version', consisting of balancing the budget during the upturn, was followed in most other countries. As noted by Ocampo (2008), the latter approach was followed because of difficulties faced by democratic regimes in convincing the population of the need for continuing a policy of austerity in periods of relatively abundant revenue.

Rising tax/GDP ratios

Tax policy underwent gradual but deep changes, both during the 1990s and even more so since 2002, particularly in LOC countries. As a result, for the region as a whole, the tax and non-tax revenue of the central government, including social security contributions, rose from 15 percent of GDP in 1990 to 17 percent in 2000, and 20.2 percent in 2007 (CEPAL, 2007). Large revenue increases were recorded over 2002-2007 in Argentina and Brazil (9 points of GDP), Colombia (8.5 points), Bolivia (10 points), and Venezuela (6 points), and only Mexico experienced a small decline. By mid 2000s, Brazil, Argentina, Uruguay and Costa Rica had reached levels of taxation similar to those of the US and Japan. In contrast, with tax/GDP ratios

at around 10-12 percent, Group 3 countries (see Table 4) remained mired in a 'low revenue development trap' which made them unable to fund pro-poor and pro-growth public goods, merit goods and goods generating large positive externalities. The revenue increase recorded in most of the region constitutes an important achievement, as the traditional inability or unwillingness to raise revenue was an important factor in the large accumulation of public debt during the 1970s, the subsequent debt crisis of the 1980s, and the macro instability of the 1990s.

The revenue increase resulted from a widespread reduction in excise taxes (due to administrative simplification) and tariffs (following trade liberalization), a rise in indirect taxes (VAT *in primis*), an increase in personal and corporate income tax, and stagnation of wealth taxes and social security contributions following the informalization of employment (Table 4). Between 2002 and 2007 there was also an increase in non-tax revenue linked to terms of trade gains. From 2002 to 2007, LOC countries appear to have performed somewhat better, both in terms of additional tax and non-tax revenue raised, and in terms of the progressivity of the tax instruments used[7] (Table 4).

Table 4: Tax Revenue and Non-Tax Revenue GDP ratio of the central government in 1990, 2002 and 2007, and changes in tax structure in LOC and NO-LOC countries

Tax revenue/GDP			Non-tax revenue/GDP				Changes over 2002-07 (% points of GDP)				
1990	**2002**	**2007**	**1990**	**2002**	**2007**	**Country Group**	Trade taxes	Excises +other ind tax	VAT	Direct Taxes	Social Security
17.5	19.2	23.7	5.4	5.3	5.9	**LOC**	+0.38	-0.23	+ 1.35	+ 2.56	+ 0.45
9.9	14.2	16.1	2.8	2.5	3.4	**NO-LOC**	- 0.20	- 0.72	+ 1.19	+ 1.49	+ 0.13

Source: Authors' elaborations on ECLAC's BADECOM.

Countries benefiting from large increases in the price of hydrocarbons, metals and agricultural exports recorded important growth in public revenue, as they taxed part of the land and mining rent by imposing special taxes on the operating revenues of mining companies. In

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[7]A regression analysis (1990-2007, 18 Latin American countries) of tax revenue/GDP was carried out to test for differences in tax behavior between LOC and NO-LOC countries. OLS estimates confirm that LOC countries taxed 2.5 GDP points more than NO-LOC countries. However, the LOC dummy is non-significant when using the fixed effects estimator. The countries were then split between LOC and NO-LOC and tests were carried out separately on the two subsamples by means of the fixed effects estimator. The results show that tax/GDP ratio rose on average by 0.20-0.22 GDP points a year in both types of countries due to greater effort at tax collection and, in some cases, a formalization of the economy. Such parameters are higher (0.75 and 0.54 respectively) for the boom years 2003-07. The test shows, in addition, that while an increase in GDP/c lead to higher tax/GDP in LOC countries, no effects were observed in NO-LOC countries. Overall, the hypothesis that LOC countries have a more active tax policy seems broadly verified.

	OLS (all sample)	FE(all sample)	FE (LOC)	FE (NO-LOC)
GDP/c	0.0001***	0.0005	0.002***	0.0001
Year	0.1835***	0.2454***	0.200*	0.220***
Dummy LOC countries	2.5315***	-0.1019	--	--

Source: authors' elaboration on ECLAC's BADECON and national data. Note:*, **, *** significant at 10%, 5% & 1%

turn, Argentina appropriated part of the benefits accrued from the real exchange rate depreciation of 2002 by means of a selective *ad valorem* export tax, the incidence of which is progressive[8]. While the improvements in terms of trade contributed to the increase in total revenue/GDP ratio, such increase preceded the commodity boom and also resulted from efforts at broadening the direct and indirect tax base and at reducing evasion. In addition, several countries introduced a "surrogate" tax on financial transactions which, while potentially distortive (Cetrangolo and Sabaini 2006), is a 'second best' tax on highly concentrated financial assets which would otherwise remain untaxed.

It is still an open question whether the recent revenue increase was enough to achieve the equity objectives of LOC governments, or whether it exacerbated the regressive features of tax systems in the region. Table 5 suggests that while tax reform still has a long way to go, the 2002-2007 increase in tax/GDP ratio was achieved in part by raising progressive direct taxes, while reducing regressive excises and general sales tax. In addition, the selective export tax used in Brazil and Argentina is likely progressive, as it captures part of the 'windfall profits' due to rising world prices, accruing to a sector characterized by high asset and income concentration.

Monetary policy and inflation targeting

As suggested by the 'impossible trinity theorem', in economies with an open capital account, such as those of Latin America, the monetary authorities can count only few tools (accumulation of reserves and sterilization of the increase in money supply induced by capital inflows) to control the fall in interest rates and credit expansion occurring during periods of export bonanzas and financial exuberance. The only other instrument utilized was the introduction of capital controls, as done in part from 2002 to 2008 by Argentina, and in 2007 by Colombia (Ocampo 2008). In most other countries, both LOC and NO-LOC, monetary policy was therefore either accommodating or neutral, tolerating (with the major exception of Brazil) lower or even negative real interest rates and higher inflation rates. Monetary policy also aimed at reducing the extensive dollarization of the financial system. Argentina conducted a radical de-dollarization during the crisis of 2002, while Peru, Bolivia and Uruguay adopted a policy of gradual de-dollarization. In particular, there was a decline in the floating of dollar-denominated public-sector bonds in domestic markets. Finally, there was a general strengthening of Central Bank independence.

Exchange rate regime

With the exception of Brazil and Venezuela, most LOC and several other countries abandoned the free floating and fixed pegged regimes adopted during the prior decade, and opted instead for a competitive exchange rate regime, as in the case of Argentina (Frenkel and Rapetti, 2008), or employed managed floats aimed at preventing an appreciation of the real

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[8] Governments developed a variety of fiscal mechanisms for appropriating part of the increase in commodity prices (CEPAL 2007, p.31). Argentina introduced an export tax on selected agricultural goods. In turn, Venezuela, Bolivia and Chile introduced new taxes to raise the revenue generated from their non- renewable resources. As a result, the share of fiscal resources represented by such revenue in Bolivia, Chile, Colombia and Mexico rose from of 27.8, 7.6, 9.9 and 29.4 percent in the 1990s to 34.8, 20, 14.2 and 37.5 in 2006-2007.

exchange rate. As noted by Ocampo (2007), consistent with this approach, Central Banks reduced the supply of foreign exchange through interventions in the currency market, particularly during the massive capital inflows of 2006 and 2007, adopted a coherent fiscal policy, and in a few cases, introduced capital controls. The clearest example of this policy can be seen in Argentina, where a competitive exchange rate was a cornerstone of macroeconomic policy. There is evidence that such policy shifted labor towards the labor-intensive traded sector (mainly manufacturing) with a strong equalizing effect (Damill 2004, cited in World Bank 2005).

In 2006 and 2007, this policy approach came under pressure owing to large increases in export prices, capital inflows and remittances, and several countries – both commodity exporters, and particularly non-commodity exporters – experienced a mild-to-moderate real appreciation (Figure 7). Indeed, the large current and capital account surpluses realized in most of South America in 2006 and 2007 led to an appreciation of 4.8 percent of the extra-regional real exchange rate for the region as a whole. Stronger effects were felt in Colombia, Brazil and Venezuela (Figure 7, and CEPAL 2007). Only Argentina, Bolivia (till 2006) and Panama experienced a modest real depreciation, while in other countries there were no changes (Figure 7). It must be noted however, that without a huge accumulation of reserves and parallel sterilization efforts, several countries would have shown stronger symptoms of Dutch Disease and accelerating inflation in the non-tradable sector which would have generated adverse distributive impacts (Taylor 2000).

Figure 7: Trends in the index of the real effective exchange rate (REER), 2002=100 in commodity and non-commodity exporters, 2002-8 (a decline denotes an appreciation)
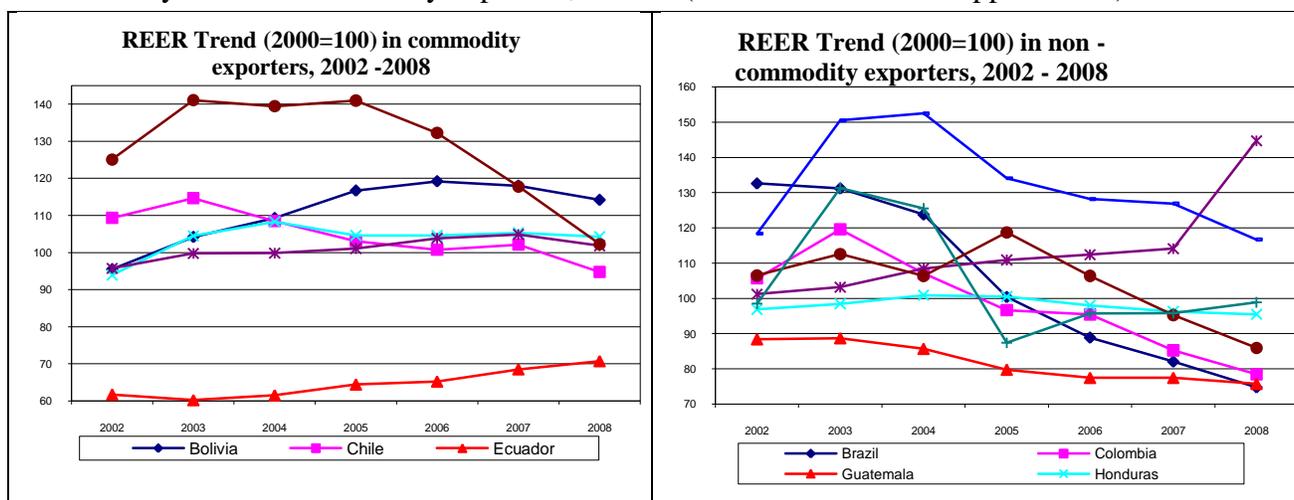
Source: authors' elaboration on the basis of ECLAC data. <u>Notes</u>: Argentina (which recorded a huge real depreciation in this period), as well as El Salvador, Costa Rica and Nicaragua (which maintained a broadly constant REER) were omitted to render Figure 6 more legible.

Trade and external indebtedness

The free trade policies adopted in the past have not been overturned. In contrast, the trend towards international trade integration points to some reorientation. The Free Trade Area of the Americas seems to have stalled while regional trade integration seems to have developed rapidly, especially in the field of manufacturing exports. Free trade agreements with industrialized

countries have, in contrast, strengthened the exports of primary commodities. A possible exception is Mexico, which increased its exports of manufactured goods with high import contents and limited backward and forward linkages.

LOC governments attempted to reduce their dependence on foreign borrowing and generally, existing short-term stabilization agreements with the IMF were not renewed. Brazil (in 2005) and Argentina (in 2006) prepaid their outstanding debt to the IMF. A few countries restructured their foreign debt, as in the case of Argentina which – against the advice of the IMF – successfully renegotiated its private debt at a 70 percent discount. As a result, Latin America's gross foreign debt declined from 42 percent of the regional GDP in 2002, to 20 percent in 2007, while foreign debt/GDP net of currency reserves fell from 33 to 8 percent.

(ii) Income, redistributive, and social policies

Measures to reduce the glaring wealth concentration existing in the region have seldom made their way on the LOC governments' agenda. The exceptions are 'radical LOC' regimes like Bolivia (which nationalized mines and is planning land reform) and Venezuela (which renegotiated oil royalties and nationalized key industries, including steel, electricity and telecommunications). The moderate stance adopted by social-democratic/reformist LOC countries is likely explained by the fact that – in the absence of overwhelming political support, and in view of the heterogeneity of the LOC coalitions – radical reforms would have unavoidably generated tensions affecting the business climate, capital flights, and electoral support. In addition, the power of progressive regimes did not reduce the influence of dominant interest groups which – though small in number – are still powerful and can sway the public opinion on controversial issues. As a result, and with the two exceptions mentioned above, the LOC policy model resembles the 'Redistribution With Growth' (Chenery et al 1978) model more than its more radical alternative of 'Redistribution Before Growth' which sees the redistribution of assets and opportunities as a way to overcome the under-consumption trap and lack of human capital afflicting developing countries. In contrast, the measures introduced in the field of labor market social expenditure, and conditional transfers, discussed hereafter, were more far reaching.

Income and labor market policies

The LOC policy model differs from the liberal one regarding the extent to which labor policies explicitly addressed the problems inherited from the 1990s, i.e. rising unemployment, job informalization and instability, falling unskilled wages, diminishing coverage of social security, and the weakening of institutions for wage negotiations and dispute settlements.

Argentina enacted income policies to strengthen the purchasing power of poor and middle income earners, including a rise in minimum wages, a large scale public works program, a deliberate attempt to extend the coverage of formal employment, and the re-birth of trade-unions. In Uruguay the *Frente Amplio* administration reinstated the 'wage councils', i.e. tripartite collective bargaining bodies composed of representatives from the business sector, unions and government that negotiate wage settlements for major industries. In Brazil the government set up an Economic and Social Development Council composed of representatives of business, labor and a wide variety of civil society organizations as an advisory body on economic and social issues. Most LOC governments decreed hikes of the minimum wage, which were far from excessive when considering their very low initial levels. This led to important increases in the

minimum wage index in LOC countries and to a moderate increase in NO-LOC countries (Table 2 above). A recent empirical assessment of 19 Latin American countries for the years 1997-2001 (Kristensen and Cunningham, 2006) suggests that the increases of minimum wage introduced during the 2000s in the region likely produced an equalizing effect. Indeed, the study shows that the minimum wage[9] raised the pay at the bottom of the distribution and was generally associated with lower dispersion of earnings. The minimum wage coverage was found to be more far reaching than the neoclassical theory would predict, as the minimum wage was found to lift wages in both the formal and informal sectors. Indeed, though the minimum wage is not binding in the informal sector, the study found that, in 14 of the 19 countries analyzed, the wage distribution in this sector was also enhanced.

Average wages rose even more slowly (*ibid*) and, despite their recent hike, remained generally below their 2000 level, with the exception of Chile. Such wage restraint policy may reflect the greater concern of policy makers for creating jobs over improving earnings. It also reflects the recognition that, unless backed by increases in productivity, nominal wage raises may fuel inflation with little effect on real wages. The emphasis placed on this approach is confirmed by the rapid decline in unemployment in both LOC and NO-LOC countries and a faster rise in wage employment than in self-employment (Table 2), suggesting that the policy of 'formalizing employment' produced some results. Finally, in several countries, there is evidence that the wage premium declined due to a growing supply of educated workers (section 2.3) and a shift in production towards the unskilled labor-intensive tradable sector. Overall, the labor market outcomes support the view that LOC regimes paid greater attention to equity issues.

Rising public social expenditure and redistribution

Public social expenditure started rising in the early-to-mid 1990s and continued growing in the 2000s in most of the region (Table 5). Most of the rise concerned social security, social assistance and education (*ibid*). The rise was nearly universal and, of the 21 countries in the region, only Ecuador had in 2005 a social expenditure/GDP ratio lower than in 1990 (CEPAL 2005). While there still is a huge intra-regional variation in social expenditure[10], it appears that political orientation influenced the extent of the 2003-06 increase. Indeed, this rise was greater (by about one percent of GDP) in the LOC than in the NO-LOC ones (Table 5). A factor in the public expenditure rise was the increase in tax/GDP ratios (see above). Changes in the structure of public expenditure also played a role. For instance, the debt cancellation enjoyed by HIPC countries permitted reallocating to social activities monies used to service the foreign debt[11], while ODA-recipients increased rapidly their social expenditure, possibly due to growing conditionality for achieving the MDGs.

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[9] Minimum wage varied between 20 and 143 percent of low-skilled wages, with the number of beneficiaries varying between 1 and 20 percent of the labor force.

[10] In 2006, Cuba, Uruguay, Brazil, Argentina, Bolivia, Costa Rica, and Panama had social expenditure/GDP ratios in the 15-20% bracket, while in most Central American and Andean countries they were below 10 %.

[11] Since 1996-7, Bolivia, Honduras and Nicaragua benefitted from debt cancellations of 5, 6 and 2 percent of their GDP.

Table 5: Average public expenditure/GDP in LOC versus NO-LOC countries (18 countries)

Year	Social public expenditure as percentage of the Gross Domestic Product (GDP)				
	Total	Education	Health	social security	Housing
1990	9.0	2.8	2.1	3.3	0.7
1996	10.9	3.4	2.4	4.0	1.0
2003	12.8	4.3	2.8	4.6	1.1
Around 2006	13.3	4.3	2.9	4.6	1.4
LOC Δ (2006 – 2003)	1.33	0.20	0.38	0.46	0.29
NO LOC Δ (2006 – 2003)	0.48	-0.12	0.06	0.11	0.43

Source. Authors' elaboration on the basis of the ECLAC database Badenso. Notes: the data refer to the 18 countries analyzed in this study, including Bolivia (using national data) omitted in similar studies by CEPAL (2005 and 2007a).

The rise in public social expenditure likely generated positive redistributive effects. Analysis of studies on the incidence of public social expenditure by income quintile for 18 countries over 1997-2003 (CEPAL 2007, Gasparini et al 2007) suggests that: all components of public social expenditure (including social security) are less concentrated than private incomes (Table 6); expenditures on primary education and social assistance are strongly progressive, those on secondary education and healthcare are mildly progressive or proportional (depending, in the case of health, on the approach to its financing), and those on tertiary education are as concentrated as the income distribution. In turn, social security outlays (pensions and unemployment benefits) are a bit less concentrated than those of private income, as they focus on formal sector workers and only seldom provide non-contributory pensions to informal sector workers and their families. Furthermore, CEPAL (2005) suggests that the incidence of such expenditure is becoming more progressive, though at different speeds across the region, as shown by the increase in enrolments in secondary education, greater access to health services, social assistance and anti-poverty programs (see below).

Table 6: Incidence of government expenditure by quintile (18 countries over selected years, 1997-2004) and concentration coefficients of public expenditure by country subgroups

Shares of total public expenditure By sector and income quintile					Expenditure Sector	Concentration coefficients of public expenditure		
I quintile	II quintile	III quintile	IVquintile	V quintile		Group 1	Group 2	Group 3
7.4	6.5	6.3	5.9	5.6	**Education**	-0.067	0.116	-0.138
5.1	4.7	4.2	4.0	3.7	**Health**	0.074	-0.073	-0.192
2.0	2.8	4.3	**6.3**	**16.5**	**Soc Security**	0.504	0.568	0.349
3.3	2.1	1.6	1.3	1.1	**Soc Assist.**	-0.089	-0.154	-0.484
0.8	0.9	1.1	1.4	0.9	**Housing**	0.206	0.067	-0.026
19.6	17.0	17.5	18.9	27.8	**Total**	0.143	0.042	0.044

Source: Elaboration on CEPAL (2007a); Note: Group 1 includes Bolivia, El Salvador, Guatemala, Honduras, Ecuador, Nicaragua, Paraguay, Peru; Group 2: Colombia, Dominican Republic, Mexico, Panama, Venezuela; Group 3: Argentina, Brazil, Chile, Costa Rica, Uruguay.

As shown in Table 6, social security expenditure is not progressive, as it mainly covers formal sector workers with stable employment. This raises the question of how can governments best expand social security coverage, whether by actively extending the formal sector, or by setting up solidarity-based, non-contributory, universal or targeted funds to provide basic

benefits to informal sector workers and their families. Both approaches were followed in recent years, though the latter has been more common. For instance, several LOC countries introduced non-contributory social pensions to start addressing this problem (Table 7).

Table 7: Coverage of non-contributory pensions in Latin America and Southern Africa, 2008

	Age of eligibility	Universal (U) Means tested (M)	Amount paid/month US $	% population over 60	% pop >60 receiving a pension	Cost of pension as % of GDP
Argentina	70+	M	88	14	6	0.23
Bolivia	65+	U	18	7	69	1.30
Brazil 1	67+	M	140	9	5	0.20
Brazil 2	60/55+	M	140	9	27	0.70
Chile	65+	M	75	12	51	0.38
Costa Rica	65+	M	26	8	20	0.18
Uruguay	70+	M	100	17	10	0.62
memo item						
Lesotho	70+	U	21	8	53	1.43
Mauritius	60+	U	60	10	100	2.00
South Africa	65/58+	M	109	7	60	1.40

Source: HelpAgeInternational (2006b); Notes: Brazil 1 and 2 = Beneficio de Prestacao Continuada; Previdencia Rural.

There are not yet detailed studies on the net redistributive effects of the tax and social expenditures discussed above. Until the late 1990s, the net redistributive effect of tax-and- transfer operations in Latin America was much smaller than that of the OECD countries (Table 8), with the exception of Argentina and Costa Rica. In most countries, redistribution operated exclusively on the expenditure side. An analysis of tax incidence in 11 Latin American countries (Gomez-Sabaini 2006) concludes that the distribution of income after taxation (but before transfers) remained broadly unchanged, and even worsened in Mexico and Nicaragua where the tax system mainly relied on regressive or proportional taxes such as excises and VAT. Yet, as noted above, the increase in income and wealth taxes recorded between 2002 and 2007, especially in LOC countries, points to a gradual evolution of the tax system towards greater progressivity.

Table 8: Redistributive effect of budget operations in OECD (2005) and Latin America, around 2000s

	Tax/GDP ratio, (incl. social security)	Share of taxes on income and profits * on total taxes	Gini of the distribution of income <u>before</u> taxes and transfers	Gini of the distribution of income <u>after</u> taxes and transfers	% decline in Gini due to budget operations
Sweden '05	49.5	39.2	0.487	0.230	-52.8
Finland '05	43.9	38.3	0.392	0.231	-41.1
Japan '05	27.4	33.9	0.340	0.265	-22.1
Germany '05	34.8	28.2	0.436	0.282	-35.3
USA '05	27.3	46.5	0.455	0.344	-24.4
Italy '05	40.9	31.5	0.510	0.345	-32.4
Costa Rica '00	18.9	16.7	0.430	0.350	-18.6
Argentina '98	21.0	13.5	0.510	0.400	-21.6
Bolivia '02	17.3	11.2	0.440	0.412	-6.4
Mexico '02	12.0	41.3	0.490	0.450	-8.2
Brazil '97	26.9	16.8	0.561	0.490	-12.7
Colombia '03	16.6	29.6	0.530	0.500	-5.7

Source: compilation on Cetrangolo and Gomez Sabaini (2006) for OECD, and CEPAL (2005) for the Latin American countries. Note: The Gini in the table refer to the distribution of private and public income.

Social assistance

During the last 15 years, the region has experienced a profound change in its social protection systems, i.e. away from social insurance for the relatively few employed in the formal sector and little spending on social assistance, and towards a better financed social assistance (Barrientos and Santibanez 2009). The new emphasis on social assistance (which continues to be supported by social insurance in the slowly expanding formal sector) has entailed the development of large scale programs focusing on poverty reduction and including three main types of interventions: i.e. unconditional income transfers such as non-contributory pensions; conditional transfers (such as most of those listed in Table 9); and integrated anti-poverty programs (such as Chile Solidario). Contrary to the small, donor dependent, poorly sequenced and targeted Social Emergency and Investment Funds introduced to soften the resistance to structural adjustment in the late 1980s (Cornia 2001), the new social assistance transfers are better funded by the state (with programs absorbing up to 0.5 to 1 percent of GDP), and cover a considerably greater share of the population at risk (Table 9). Such programs are directed to new political constituencies such as the urban and rural poor and focus on: programs aimed at simultaneously reducing poverty and ensuring that children remain in school, providing access to health services and proper nutrition (such as Brazil's celebrated *Bolsa Familia*); temporary employment schemes for the construction of public infrastructure (as in Argentina's *Programma Jefas y Jefes de Hogares* and Uruguay's PANES); training of unemployed workers and youth with the aim of facilitating their access to formal sector jobs; subsidized formal sector employment for youth; and the promotion of SME (Table 9). Several studies document the favorable impact of such transfers, even though, in many cases, comprehensive evaluations are not yet available. However, the existing evidence suggest that these programs had greater success in ensuring investments in human capital (e.g. having children to attend schools and clinics) than in lifting the poor out of poverty (Barrientos and Santibanez 2009). Yet, an IPEA microeconometric study

(cited in CEPAL 2006) decomposed the inequality reduction observed in Brazil between 2000 and 2006, and found that government transfers (pensions and *Bolsa Família*) explained one third of such decline.

Table 9: Summary of some main social programs introduced in recent times in the region

Program (reference year)	Cost (GDP)	N. Beneficiaries	Monthly subsidy ($)
Plan Jefas y Jefes (Argentina, 2002)	0,80%	1.85 million workers	US$45 (2002) US$ 150 (2007)
Plan Nacional Emergencia (Bolivia, 2002)	0,86%	1.6% of Active pop.	63 $ Wage manual workers
PANES (Uruguay, 2005)	0.50%	7.2% of active pop.	55 $
Bolsa Familia (Brazil, 2005)	0.36%	11.1 million families	62 R$ for poor families 15 R$ for children 30 R$ for youth
Chile Solidario (Chile 2005)	0.08%	256.000 families	8-21 $ depending on poverty intensity
Oportunidades (México, 2006)	0,40%	5 million families (18% of pop)	12-74 $ depends on educ.level 17$ family health
Bono desarrollo umano (Ecuador 2005)	0.60%	5 million people (40% of pop)	15 $
Familias en accion (Colombia 2007)	0.20%	1.7 million families	8-33 US$ (educ subsidy/child) 30 US$ (health subsidy/ family)

Source: Authors' compilation on Fiszbein and Schady (2009) and Bouillon and Tejerina (2007).

3. Regression Analysis

3.1. Dataset and matrix of correlation coefficients

To test the relative importance of the sources of inequality declines discussed in Section 2, and to verify the hypothesis that such declines were stronger in LOC countries (in addition to the effect of the specific policies introduced) it was necessary to compile a dataset on Income Distribution in Latin America (IDLA). IDLA includes annual observations for 18 Latin American countries[12], from the years 1990-2007, and a large number of variables, including those used in regression analysis (Table 10). The database includes 324 (18x18) cells for each variable, though missing data reduce the number of non-zero cells by almost a third. The dependent variable is the Gini coefficient of the distribution of income (standardized in terms of Gini of household disposable income per capita)[13].

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[12] The countries included in the dataset represent the near totality of the population and GDP of the region. They are: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

[13] Of the 324 cells on current income inequality, 175 are filled with SEDLAC data, 11 from WIDER's WIID2c (of these 1 is taken from Szekely (2003), 3 from Gasparini (2003), 3 from (SEDLAC 2006), 1 from Deininger and Squire (2004), 2 from Szekely and Hillgert (2002), 3 from Badeinso-Eclac (2008), 13 from WDI (2007), 1 (Argentina 2007) from national sources. 98 data-points were interpolated by filling gaps of 1-2 years part of stable time series. In 3 cases the interpolation filled gaps of years, and in 3 cases of 4 years, especially for the early 1990s. 23 cells (for Ecuador, Guatemala, Nicaragua, and Paraguay in the early 1990s) are blank. In most cases, data refer to disposable household income per capita. A successful check was carried out to ensure that the trend of the data filled in by interpolation replicated the trend of other income concepts. While in most cases it was possible to ascertain that the data referred to disposable income, lack of information in survey questionnaires did not allow identification

Table 10: Definition, description and data sources of the variables used in regression analysis

Variable name	Variable label	Source	Unit of Measure
Gini income	Gini coefficient of the current distribution of disposable household income per capita	SEDLAC complemented by WIID	Percentage points
Gini income 1990	Gini coefficient of the distribution of disposable household income per capita in 1990	SEDLAC complemented by WIID	Percentage points
GDP/c gr	Per capita average annual growth rates GDP in constant prices	ECLAC	Percentage based on US dollar figures at constant 2000 prices
Gini education	Gini index of the distribution of years of education among the working population (25-64 years old)	SEDLAC	Percentage points
Tot- fob	International terms of trade, fob	ECLAC	Index, 2000=100
Remittances	Workers' remittances / GDP	UNCTAD	Percentage of GDP
FDI	Net Stock of Foreign Direct Investment/GDP	UNCTAD	Percentage of GDP
Capital flows	Portfolio investment/GDP	ECLAC	Percentage of GDP
REER	Index of Real Effective Exchange Rate	Econ Survey of L. America and the Caribbean	Index, 2000=100
Min-wage (1 - % inform sector)*	Minimum wage index multiplied by 1 minus the share of informal sector workers on the total	ECLAC	Min wage Index, 2000=100 Informal sector
Direct tax	Taxes on income, profits, capital gains, property/ GDP	ECLAC	Percentage of GDP
Indirect tax	(General taxes on goods and services + taxes on specific goods and services) / GDP	ECLAC	Percentage of GDP
Public exp. On social Security	Public expenditure on social security and social assistance / GDP	ECLAC	as a percentage of GDP
Q5/Q1 Pensions	Ratio of pensions coverage between the top and the bottom quintile	Rofman et al. (2008)	Ratio
LOC	Countries with left of centre regimes	Authors' compilation	1 (LOC), 0 (center-right)

Source: authors' compilation

The explanatory variables included in the regression analysis are described in Table 10. They belong to five sets of explanatory factors: (i) <u>initial conditions</u> (proxied by Gini 1990, and expected to have a positive sign in regression, as current inequality changes only gradually in relation to its past values); (ii) the impact of the <u>current business cycle</u> measured by the growth rate of GDP per capita, expected *ex ante* to have a negative sign; (iii) the <u>distribution of human capital</u> (i.e. the Gini coefficient of the distribution of years of education among workers, expected *ex-ante* to reduce inequality); (iv) <u>external conditions</u> i.e. international terms of trade,

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of the income concept used. This might introduce a measurement error in the dependent variable. However, in view of the strong co-variance of the Gini's for all income concepts, it is likely that including data referring to an unknown income concept may bias the country intercepts in the fixed effect estimation, without affecting the parameters of the explanatory variables.

migrant remittances, FDI, and portfolio flows (all of which have *ex-ante* an uncertain, and possibly non significant, direct impact on inequality, other than the effects mediated through GDP growth and other variables); and (v) <u>public policies</u>. These include the Real Effective Exchange Rate (REER) which proxies <u>macro policy</u>, and which is expected to reduce inequality for the reasons given in Section 2, and the minimum wage (expected *ex-ante* to reduce income inequality) which proxies <u>labor market policies</u>. As for <u>redistributive policies</u>, the following variables were used in regression analysis: the ratio of direct to indirect taxes (expected *ex-ante* to reduce income inequality); the public expenditure on social security as a share of GDP (expected to reduce mildly inequality, especially where the share of social insurance is dominant); and the ratio of pension coverage in the top versus the bottom quintile (expected *ex-ante* to raise inequality). Finally, (vi) a LOC <u>political dummy variable</u> equal to 1 when a country is ruled by a centre-right or centrist regime, expected *ex-ante* to reduce inequality (beyond the impact manifested via the adoption of progressive social policies). Table 11 presents the matrix of correlation coefficients between the variables to be included in regression analysis.

Table 11: Matrix of bilateral correlation coefficients among variables used in regression analysis

	Current Gini	Gini_90	Gdp/c g.r.	Reer	Min Wage index	DirTax / InTax on Tax/ GDP ratio	Public exp. on social sec. /GDP	Remit./ GDP	Internat terms of trade	Gini distr of years of educ. (-1)	FDI stock /GDP	ln_Q5/ Q1 Pension s	LOC regime	Portf. investm ent/ GDP
Current Gini	1.00													
Gini_90	0.81	1.00												
Gdp/c g.r.	-0.09	0.00	1.00											
Reer	-0.36	-0.41	0.06	1.00										
Min wage index	-0.24	-0.12	0.11	0.38	1.00									
DirTax : IndTax/ Tax/GDP ratio	0.06	0.18	-0.09	0.14	0.18	1.00								
Public exp. on social sec./DP	-0.26	-0.18	0.05	0.17	0.22	-0.55	1.00							
Remittances/GDP	-0.08	-0.05	0.03	-0.26	-0.15	-0.22	-0.31	1.00						
Intel. terms of trade,	0.05	0.09	0.26	-0.13	-0.02	-0.20	0.14	0.00	1.00					
Gini years of education (-1)	0.46	0.50	-0.18	-0.35	-0.39	0.04	-0.39	0.22	-0.03	1.00				
FDI stock/GDP	0.05	-0.05	-0.06	-0.01	-0.23	-0.54	0.11	0.24	0.06	0.07	1.00			
Ln_Q5/Q1 Pensions	0.38	0.20	-0.11	-0.21	-0.36	0.23	-0.64	0.20	0.10	0.50	0.05	1.00		
LOC regime	-0.06	0.10	0.07	0.18	0.38	-0.04	0.16	-0.04	0.14	-0.09	0.06	-0.38	1.00	
Portfolio flows/GDP	-0.01	0.08	0.17	-0.08	0.05	0.06	0.07	-0.18	0.06	-0.13	-0.19	-0.08	0.01	1.00

Source: authors' elaboration

In the vast majority of cases, the explanatory variables are strongly independent among each other. This is not true in five cases where medium bilateral correlation coefficients are 0.5-0.6 involving the correlation between pension and social security expenditure, pensions and the distribution of human capital, taxes and social expenditure, and FDI and Gini education. This may cause some problems of multicollinearity and render the related parameters of some of these

variables non significant. In more general terms, however, the small bilateral collinearity among variables suggests that there is no need to develop a structural multi-equation model – as it might be suggested by economic theory because of the possible (but not empirically verified) relations among regressors. Indeed, one might surmise that the growth rate of GDP/c depends on the international terms of trade, migrant remittances, or FDI, but the related region-wide correlation coefficients between these pairs of variables are only 0.26, 0.03 and -0.06.

3.2. Estimation procedure and regression results

The IDLA database is organized as a tri-dimensional matrix, with 18 countries on one axis, 18 years on the second, and the 12 dependent variables used in the analysis on the third. One may wonder if the use of a panel of different countries may cause heterogeneity in the data. Yet, the Breusch-Pagan test for data poolability refuses, at the zero percent probability level, the null hypothesis of heterogeneity of country data. As for the choice of the best estimator, this kind of dataset demands that the procedure chosen for the estimation of the determinants of income inequality takes into account that each country is observed over several periods. Such model takes therefore the following form:

$$y_{it} = \alpha + x_{it} \cdot \beta + u_i + \varepsilon_{it}$$

where y is the dependent variable (the Gini coefficient of the distribution of gross income per capita), x is a vector of explanatory variables (see above), the subscripts i and t represent respectively the countries and the years of the panel, u_i is the error term for each country, ε_{it} is a joint error term for countries and time periods, and α and β represent the parameters to be estimated. Given the nature of this dataset, the OLS procedure tends to yield inefficient and distorted estimates of the values of α and β (Baltagi 2006). The estimation procedure best suited to situations in which u_i varies from country to country is the fixed effects (FE) model in which u_i is not treated as a random variable. This means that the estimation with the fixed effects model includes, for each of the 18 countries considered, an intercept which captures specific country effects due to geography, institutions and unobservables. Besides fixed-country effects, the estimation procedure has included also year fixed-effects so as to capture the impact of yearly shocks. The F test of joint significance confirm at zero probability level that both country and year fixed-effects are different from zero. This indicates that their exclusion from the regression would bias the estimates of the other parameters.

The results of the regression analysis are presented in Table 12 in a basic model (column 1) and in two subsequent models where portfolio inflows/GDP (column 2) and the latter plus the ratio of the coverage of pensions in the top to the bottom quintile (column 3) were added. In the basic model, practically all variables have the sign expected *ex-ante* on the basis of the received theory reviewed in Section 2. The addition of portfolio flows and pension has a minimal effect on the value of the parameters of model 1.

We turn now to the impact of the five sets of variables discussed before the regression. (i) Initial conditions: in the fixed effects approach, the time-invariant Gini income 1990 is absorbed in the country-specific constant term (but its effect is strong, in contrast, when using the OLS or random effect estimators, not shown here for reasons of space). (ii) The growth rate of GDP/c (which measures the impact of the business cycle) has a strong effect on inequality, falling by a

quarter of a Gini point for every one percent in GDP/c growth. The recovery of 2003-07 appears therefore to have had an important equalizing effect. (iii) The Gini of the distribution of the years of education among members of the <u>labor force</u> (delayed one year) is, as expected, strongly significant, suggesting that improved access to secondary education had an important, if slow-moving, effect on the decline of income inequality. (iv) As for the impact of the <u>external conditions</u>, the results suggest that their direct effect is significant but not large though, as noted in Section 2, their impact might operate via the growth of GDP. The international terms of trade reduce inequality in a significant but moderate way (an increase of 100 points in the related index would reduce inequality by 1.5 Gini points); remittances appear to raise inequality (as suggested in Section 2) but at a borderline level of significance; portfolio flows are not statistically significant, possibly also because of errors of measurement of this variable. In turn, the FDI stock/GDP appears to increase inequality in a statistically significant but limited way. For instance, a doubling of the FDI/GDP ratio from the current regional average of 20 to 40 percent for the region as a whole would increase Gini by 1.2 points, though the effect would be higher, for instance, in FDI dependent Andean countries. (v) As for the impact of <u>macroeconomic policy</u>, the results suggest that, as argued in Section 2, a competitive exchange rate affects inequality in a convex way. Inequality at first falls, then rises beyond a given threshold requiring excessive nominal devaluations. As for the income and redistributive policies, the results suggest that the minimum wage (interacted with the share of formal sector workers) reduces inequality, but at a borderline level of significance. More significantly, the ratio of direct to indirect taxes indicates that the changes in the structure of revenue collection during 2003-07 (Table 4) generated a favorable distributive effect. In turn, social security expenditure/GDP has a clear and statistically significant impact on inequality (doubling such expenditure from 10 to 20% of GDP would reduce inequality by 3.1 points), and the impact would likely be larger if social assistance could be factored out. In contrast to *ex-ante* expectations, the ratio of pension coverage of the top to the bottom quintile is not significant. This is possibly because it correlates closely with the share of social security/GDP (see Table 11), or because this variable exhibited little variation over time in many countries.

Table 12: Fixed-effects regression results (dependent variable: Gini coefficient of distribution of disposable income/c)

Variable (sign expected ex-ante on the basis of theory)	(1)	(2)	(3)
Gini income 1990[a/] (+)			
Growth rate of GDP/ per capita (-)	-5.2952*	-5.3988*	-5.0624^
Gini distribution of years of education (-1) (+)	0.6100***	0.6143***	0.5967***
International terms of trade, fob (+,-)	-0.0156*	-0.0151*	-0.0132^
Migrant remittances/GDP (+, -)	0.1088^	0.1111^	0.0051
FDI stock_net/GDP (+)	0.0598***	0.0620***	0.0494***
portfolio investment/GDP (+)	....	0.0182	0.0181
REER (-)	-0.0720**	-0.0701**	-0.0687**
REER2 (+)	0.0003***	0.0003***	0.0003***
Minimum wage index * (100 – share of informal sector) (-)	-0.0002^	-0.0002^	-0.0003**
Share of Direct Tax / Indirect Tax on Tax/GDP ratio (-)	-8.9762***	-9.0673***	-10.544**
Public expenditure on social security/GDP (=,-)	-0.3269**	-0.3182**	-0.2695^
ln_Q5/Q1 Pensions (+)	....	....	0.123
LOC countries (-)	-0.8205**	-0.8263**	-1.2404***
Constant	40.0748***	39.5769***	41.5874***
Year Dummies	Yes	Yes	Yes
Observations	222	222	181
R-squared	0.45	0.45	0.45

Source: author's calculations. Notes: ***, **, *, ^ significant at 1%, 5%; 10%; between 10 and 15%. [a/] In the fixed effect estimation procedure, this time-invariant variable is omitted and is subsumed in each country's constant.

(vi) Finally, the <u>dummy variable 'LOC'</u> is significant and indicates that left of centre governments tend to have, on average, a Gini coefficient lower by around one point than NO-LOC countries, in addition to the effects mediated by the adoption of more progressive economic social policies. The statistical fit of the regression is broadly satisfactory. Yet, these results need to be probed further, and have to be considered as an initial step in disentangling the sources of the inequality decline observed from 2003 to2007. For instance, the validity of the conclusions drawn on the basis of these results needs to be probed in a few ways, starting with considering the possibility of reverse causation among dependent and independent variables[14].

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[14] Reverse causation is tested by means of the Granger test. However, such a test is not suitable for the ADLI dataset in which each variable has, at most, 18 or fewer observations due to missing data. It is therefore more appropriate to deal with this problem from a theoretical standpoint. In this regard, it must be noted that reverse causality makes no sense in the majority of the relations in Table 13. For instance, it is not plausible that changes in domestic inequality affect the real exchange rate, or can affect lagged, exogenous or policy variables (such as Gini income 1990, migrant remittances, terms of trade, ratio of direct/indirect taxes, ratio of pension coverage Q1/Q5, and minimum wage). Also, a fall/increase in Gini income may affect the Gini of years of education only after a considerable lag. It is also implausible that a decline in inequality will affect the expenditure on social insurance/GDP, which depends on the

With these caveats in mind, on the whole, it appears that the recovery of the business cycle (which is certainly related to improvements in external conditions), together with the introduction of pro-poor macroeconomic, labor and social policies (which is related to the election of LOC regimes) played a major role, as expected *ex ante*, in reducing income inequality. Though this variable moves very slowly, the impact of the distribution of years of education (which has slowly improved during the last 15 years) also had an important impact. These results broadly confirm the theoretical considerations presented in Section 2 regarding the possible sources of the inequality decline that has taken place in Latin America in the 2000s. In addition, these results contradict the conclusions reached by Perez Caldentey and Vernengo (2008) which state that the recent growth acceleration and fall in inequality have nothing to do with the policy changes introduced by LOC and some conservative governments in the economic and social sphere. For sure, favorable changes in the external environment played a major role in accelerating growth and reducing inequality. It is also true, as argued by these authors, that the recent developments have not reduced the long term dependence of the region on the export of primary sector. But, as this paper has indicated, changes in public policies adopted during the 2000s seem to explain part of the inequality improvements.

4. The Distributive Impact of the Present Crisis

The rapid growth and inequality decline which began in 2002-2003 was abruptly interrupted by the onset of the global financial crisis in mid 2008. In the early stages of the crisis, it was commonly believed that the region would be bypassed due to the solidity of its financial sector, steady growth of the Asian economies and good macroeconomic conditions.

However, the view of 'decoupling' has been rapidly abandoned as the region was affected not by 'financial contagion', but by a series of 'real economy' shocks including (Ocampo 2009 and CEPAL 2009b): (i) a modest improvement of terms of trade (3% for the region as a whole) in 2008, and an aggregate decline of -10.8% by mid 2009 (year on year). By mid 2009, the drop in terms of trade was particularly acute (between -20 and -28%) for six Andean countries exporting primary commodities, but moderate (-6.2%) for the Mercosur, minimal for Mexico (-4.5 %) and positive (+ 4.8%) for Central America. The terms of trade deterioration was, on balance, of medium intensity, bringing the regional index broadly to the same level of that of 2004, i.e. a relatively good year. (ii) A drop in the growth of export volumes began immediately after the

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coverage of formal employment as far as pensions are concerned, and on tax revenue and public expenditure allocation for conditional cash transfers. The only area where reverse causation may be plausible is between the Gini inequality and the growth rate of GDP/c. In this case, however, this relation would be characterized by time lags, thus excluding the possibility of reverse causation on synchronous data. Furthermore, the literature on the impact of higher inequality on GDP/c growth is not unanimous. Neokeynesian and neoclassical models postulate a positive relation between these two variables, while 'political economy' and 'incentives' models assume a negative one. On the whole, reverse causality does not seem plausible. However, the parameters in Table 13 may be distorted by the possible endogeneity of some explanatory variables. Solving formally this problem by means of a simultaneous equations system is however a difficult task in a panel with 18 countries.

onset of the sub-prime crisis in July 2008, and became negative in October of the same year. By the first quarter of 2009, the volume of exports had dropped (year-on-year) by 3% in Central America and by 6-14% in the rest of the region. According to Ocampo (2009), the shocks to international trade are the main factors affecting Latin America's performance since mid 2008. (iii) A 20% decline in migrant remittances by mid 2009, affected in a major way the Central American economies (which benefitted from a drop in oil prices), Mexico, Ecuador and Columbia. Tourist receipts also declined, though to a lesser extent, and affected a limited number of countries. (iv) A sharp drop in the value of FDI from their historical peak in 2008 was due to the large decline in the prices of primary commodities. (v) A substantial drop in portfolio inflows, coincided with the spread of the banking crisis in the advanced economies, and an increase in capital outflows from the region. The issue of bonds on the international market diminished from 41 billion US$ in 2007 to 13 billion for the first half of 2009. As a result, the net capital inflow became negative by between 5 and 10 billion US$ per trimester since the second semester of 2008. The related outflows also caused a drop in the stock market indexes which collapsed from an average of 500 in May 2008 to below 200 by mid November, to recover slightly in early 2009. As a result, it is estimated that the net reserves of the region, which had reached the exceptional level of 500 billion US$ in mid 2008, started to decline. (vi) An average increase in interest rate spreads by 500 basic points between the lowest level reached in 2007 and the first trimester of 2009 occurred, though the increase was considerably lower than that (1100 and 1400 basic points) observed during the Russian and Argentinean crisis of 1998-99 and 2001-02, during which the fundamentals of the region were more fragile. The spreads have started to decline, but are still well above the pre-crisis level.

These external shocks have weakened the balance of payments and revenue collection and, with it, the budget deficit. As a result, the regional budget and current account deficit will reach (a tolerable) -2.5% of GDP in 2009. Much of the increase in the fiscal deficit is due to a drop in tax and non-tax revenue, rather than to greater public expenditure. As noted by the 2009 ECLAC (2009) study by Gomez-Sabaini and Jimenez, the decline in revenue collection varies with the economic and tax structure of the different countries[15]. Commodity exporting countries are expected to see their revenue/GDP ratio fall by 3.8% (for the reasons given in Section 1 and in footnote 17) while in the others the revenue/GDP ratio should drop by only half a point. Finally, the growing deficit of the current account triggered a wave of currency devaluations. Indeed, with the exception of Venezuela and Peru, between January 2008 and March 2009, the nominal exchange rate of the largest economies depreciated by between 15% (Argentina) and 35% (Mexico) (CEPAL 2009b). These devaluations may however be a blessing in disguise in light of the overvaluation of most currencies in the region prior to the crisis (Ocampo 2009), and may provide important incentives to diversify the economic structures of many countries. As a result, it is expected that the growth rate of GDP of the region will drop from 4.2 in 2008 to -1.9 in 2009, to recover to an estimated 3.1 in 2010 (CEPAL 2009b). While the majority of growth rates range between + 1 and -2 percent, in Mexico the drop (-7%) is extremely severe.

What is the distributive impact of the crisis? Will the crisis erode the inequality declines recorded since 2002-03? To answer these questions, it is important to note that the current crisis hits a region which exhibits much better conditions than those prevailing during the crises of

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[15] The countries most affected are those high dependent on natural resources, with already low tax/GDP ratios, mainly depending on import taxes and VAT, and low proportion of income tax in the total (CEPAL 2009a).

1982-1984 and 1998-2002. To start with, the crisis is mainly a real economy crisis, and less a financial crisis, as in the US and parts of Europe or as experienced in the region during the 1980s and 1990s. This means that fewer funds are needed than in the past to recapitalize ailing banks, and that fiscal policy can expand pro-poor and pro-growth public expenditures. Second, this is even more true when considering that many countries in the region are in a position to follow countercyclical fiscal policies entailing deficits for a couple of years (the expected duration of the global crisis). This is due to the decline of the public debt/GDP ratio, large accumulation of currency reserves, and decline in inflation achieved over 2002-2008 (see Section 2). In turn, with few exceptions, Central Banks can also carry out a more flexible monetary policy without endangering their inflation targets. Also, the recent devaluations of the exchange rate are likely to correct recent real appreciations, as in the case of Brazil, with a possible favorable impact on export growth, diversification of the economy and inequality. Third, the impact of the recession via international trade will not affect all countries equally. For instance, the Southern Cone nations, which trade mainly with East Asia, are less likely to be affected due to the milder recession experienced in that region. Fourth, most countries have introduced in recent years important public works and cash transfer programs (Table 9). At the moment, 85 million Latin-Americans receive a subsidy through some kind of CCT schemes (UNDP 2009). This prior institutional development should facilitate the expansion of safety nets during the crisis and help preserve some of the recent inequality declines. However, not all countries may have the administrative capacity to act in a timely manner. Finally, the inequality trends over 2009 and 2010 will depend on the ability of governments to sustain the measures introduced during the recent past in the fields of direct taxation, social expenditures, labor market policies and a gradual drive towards an integrated, universal social protection system, and away from the traditional highly segmented and informal systems. As noted, a feasible countercyclical fiscal policy should sustain some of these efforts over the years ahead, and preserve part of the inequality gains achieved during the recent past. It seems unlikely, therefore, that an 18-24 month crisis will undo the full distributive gains of 2002-2007.

One way to grasp the impact of the current crisis is to use the parameters of the column 1 model in Table 12 to estimate the likely inequality impact of the global financial crisis in 2009 on a few prototypical countries. Prototypical countries include a few oil-metal exporters (Chile, Ecuador, and Mexico – which as noted above will suffer a decline in tax revenue of 3.8 points of GDP) and more broad-based economies (Argentina and Brazil). In this regard, the 2008 and 2009 values of the right-hand side variable (terms of trade, GDP/c, real exchange rate, tax/GDP ratio, migrant remittances and FDI) were derived from various ECLAC publications or were projected (as in the case of 'stock variables' such as FDI/GDP stock and the Gini education) assuming only minimum changes in their level. What needs to be noted is that several of the non-policy explanatory variables in the model presented in Table 12 varied little in 2008 and in 2009, a strong impact is evident only in a few countries (Mexico above all). As for the policy variables, two scenarios were simulated, one assuming moderate cuts, and the other assuming more severe cuts. The first assumes: a modest decline (5% of its initial value) in tax incidence among non commodity exporters and of 35% among commodity exporters, as suggested above; a 10% drop from the initial level of social security expenditure/GDP in all countries; and that the likely increase in job informality will be compensated by a social safety net reflected in a rise in minimum wages. In contrast, the second, more pessimistic, policy scenario assumes: a drop in direct tax revenue/GDP ratio in relation to its initial level of 40% for the commodity exporters and of 15% for the other countries; a 25% reduction of social security/GDP from its initial level

ratio in commodity exporters and of 15% in the others; a cut of the minimum wage of 5% in LOC countries and of 25% for the NON-LOC countries; and a 5% increase in the share of informal employment in all countries.

The results of this highly hypothetical exercise are presented in Table 13. They suggest that in 2008 the rise in inequality in relation to the values predicted by the model for 2007 was very modest, varying between 0.1 (Colombia and Brazil) and 0.6 (Ecuador). This is not surprising as the external conditions continued to improve till midyear, and the rate of growth remained acceptable in all these countries. Under scenario 1, the 2007-2009 Gini rises were somewhat more pronounced but still modest, ranging between 0.4 and 1.4 Gini points, i.e. much less than the drop realized over 2003-7. The largest increase was recorded among commodity exporters such as Chile, Mexico and Ecuador. In non-commodity exporting countries, the increase was around 0.5 Gini points. Even under the more pessimistic scenario 2, the Gini increase remains moderate, ranging between 1 and 1.7 Gini points. While these results may depend on the model specification (which takes into account structural rather than cyclical factors), and on the fact that some adverse changes in variables were not included in model 1 Table 12 – such as a drop in capital inflows, rising interest spreads on international loans, and rises in capital flights – may also negatively affect income inequality. But the limited increase in inequality seems to depend mainly on the fact that – except for Mexico – the crisis has not been as acute as that of 1982-84, or that currently experienced in the European economies in transition where GDP/c is expected to decline between 10 and 20 percent a year over two years. In Latvia, for instance, private consumption per capita is expected to fall by a staggering 40 percent over 2008-2010. In fact, (CEPAL 2009b) estimates for 2009 include a two percent GDP growth in Argentina, Ecuador and Colombia, and a decline of just one percent or less in Chile and Brazil.

Table 13: Simulated impact of the crisis on income inequality

Δ Gini points	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico
2007-2008	+0.42	-0.09	+0.31	+0.04	-0.57	+0.18
2007-2009 *(Scenario 1)*	+0.50	+0.55	+0.92	+0.50	+1.38	+0.79
2007-2009 *(Scenario 2)*	+1.00	+1.04	+1.27	+1.35	+1.70	+1.44

Source: authors' simulation using the parameters of model 1, Table 13.

Conclusion

Has the LOC Model of Prudent Distributive and Redistributive Policies Reduced Inequality? Is the Current Crisis Reversing These Gains?

The spread of democracy and dissatisfaction with Washington Consensus policies have led to the elections of LOC governments which introduced – thanks also to favorable external conditions – economic reforms broadly inspired by a 'prudent redistribution with growth' which committed to reducing the 'social debt' inherited from the colonial past and exacerbated by the liberal policies of the 1980s and 1990s. With few exceptions, the new policy model did not introduce a radical redistribution. Rather, it has emphasized orthodox objectives such as macro-stability, fiscal prudence, and the preservation of free trade and capital movements. Yet, in a clear departure from the 1990s, LOC governments opted for managed exchange rates, a neutral or

countercyclical fiscal policy, reduced dependence on foreign capital, rapid accumulation of currency reserves and a more active role of the state in the field of labor and social policies.

As with European social democracies, LOC and to a lesser extent moderate centre-right governments raised the tax/GDP ratio (a trend facilitated but not explained, neither in its timing nor in its extent, by the recent terms of trade gains) as well as public spending for education, cash transfers and other forms of social assistance. There is micro and macro evidence that higher public and private spending reduced inequality in education and improved the distribution of human capital among the workforce. Redistribution was also pursued via macroeconomic policies favoring the labor-intensive traded sector and changes in labor market policies and institutions. Also in this case, the changes introduced were far from radical, and yet helped improve labor participation, increase the proportion of workers covered by formal contracts, and reduce unemployment.

Of the changes that determined the decline in income inequality between 2002 and 2007, the most important was the reduction of educational inequality among workers, which explains one third of the overall average decline in inequality (equal on average to 4 Gini points). Other key factors were the choice of a competitive real exchange rate (though such policy was not followed in all countries) and the increase in minimum wages (each of them caused a drop in inequality equal to around a fifth of the overall decline). The rise in public social expenditure in LOC countries reduced inequality by about one tenth of the total while the changes in direct relative to indirect taxes has only a modest impact on inequality. As for the changes in international conditions, the improvements in international terms of trade reduced income inequality by about one tenth of the total, while remittances and capital inflows had no impact, and GDP growth affected inequality only modestly. Finally, the LOC countries recorded an additional decline equal to about fifth of the overall decline in inequality.

While interrupting a positive cycle of six years, the impact of the crisis is, on average, considerably less intense than in the OECD countries and the transitional economies of Eastern Europe. The arguments and simulation results presented above tentatively suggest that the inequality deterioration expected for 2008 and 2009 should be substantially lower than the gains recorded in most of the region over 2002/3 and 2007.

Beyond the problems posed by the current financial crisis, Latin American governments still face formidable hurdles to deepen the reforms of their economies, promote inclusive growth and further reduce inequality. First, the trend towards increasing taxation and social expenditure needs to continue in much of the region, with the objective of building a lean state that avoids the high costs of the European welfare model while offering universal coverage. Second, while the funding of the reforms has come in part from gains in the terms of trade, the revenue needed to sustain social expenditure in the future will have to come from a diversification of the economy into new labor- and skilled-intensive sectors. Third, an intensification of the new policy model by LOC governments in the region faces considerable political opposition, as shown by the case of Bolivia and Argentina, where a few doubtful policy decisions and the opposition of interest groups nearly stalled even moderate attempts at redistribution. Perhaps, the main effect of the financial crisis is that it may dig a gap between the responses expected from LOC governments and what they can actually do. In this regard, it is important to note that the region will undergo 24 national elections between

2009 and 2010 (UNDP 2009). An unchecked deterioration of living conditions might lead to a collective perception that the crisis is due to inadequate policy responses. Failure to stay – with the needed corrections – the policy course adopted in recent years may cause a credibility gap, undermine support for LOC governments, and push the region towards its traditional path of unequal development or towards more radical solutions, possibly overturning in this way the inequality gains of the recent past.

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