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Argentina's Distributional Failure: The role of Integration and Public Policies

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The role of Integration and Public Policies [#]

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Abstract

This paper documents the income distribution changes experienced by Argentina during the last decades. Inequality substantially increased, and despite economic growth during some periods, poverty also went significantly up. Two types of episodes have shaped Argentina's income distribution: deep macroeconomic crisis and periods of openness and integration. The sizeable raise in inequality in the 90s seems to be associated to reallocations against unskilled-labor intensive sectors, and especially to skilled-biased technological change within most sectors, both factors stimulated by the process of economic integration. The depth and speed of the reforms and the absence of public policies to ease the transition contributed to the particular severity of the income distribution changes in Argentina.

JEL Classification: C15, D31, I21, J23, J31

Keywords: inequality, distribution, globalization, integration, wages, education, Argentina

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1. Introduction

Argentina was traditionally one of the most equal economies in Latin America. The available evidence shows low and stable inequality in the country in the three decades following the World War II, with poverty indexes not far from the ones in the developed countries (Altimir, 1986; Gasparini, 1999; WIDER, 2000). The story for the following three decades is completely different. From mid 70s to the present Argentina witnessed distributional changes that dramatically increased inequality and poverty, which now reach values close to the Latin American averages (Lee, 2000; Gasparini *et al.*, 2001; Altimir *et al.*, 2002). The Gini coefficient for the distribution of household per capita income increased from 34.5 in 1974 to 53.8 in 2002, while the poverty headcount ratio increased from around 5% to more than 50% in the same period. There are no countries in Latin America and the Caribbean that experienced such dramatic changes in the income distribution.

Inequality has not increased steadily during this period. It is possible to identify two types of episodes that shaped the income distribution: macroeconomic crisis (88-89 and 01-02), and periods of increased integration (late 70s and most of the 90s). The distributional impacts of the macroeconomic crises were stronger, although of a shorter duration. Periods of economic openness are associated to changes in the economic structure against unskilled-labor intensive sectors, and to skilled-biased technological change. Both phenomena have reduced the relative demand for unskilled labor, decreasing employment and wages for this group, which has translated into higher inequality and poverty.

This paper scrutinizes income distribution changes in Argentina, stressing the links between the process of integration to the world economy and the growth of inequality and poverty. The study presents alternative explanations of the distributional patterns observed in Argentina and assesses their relative importance in the light of the economic theory and the available empirical evidence. The paper argues that although integration may certainly increase inequality in the short and medium run for countries like Argentina, the government can smooth the transition. Failing to do that, as in the Argentine case, may place the whole process of integration and liberalization into doubt and risk.

The rest of the study is organized as follows. In section 2 we carefully document the distributional changes experienced by Argentina in the last three decades. Although the focus is on inequality, statistics on poverty, aggregate welfare, polarization and educational mobility are also presented. The direct determinants of the distributional changes are examined in section 3, where the role of the increase in the wage premium for skilled workers is emphasized. The links between global market integration and changes in the wage premium are explored in section 4. After describing the process of integration in Argentina, we review the theoretical links between globalization and income distribution, and provide evidence on these links. Section 5 summarizes results on the distributional impact of fiscal policy in Argentina, in order to assess the effectiveness of public policies to counteract "market" distributional changes. Section 6 concludes with an interpretation of the main results of the paper.

2. Distributional changes in Argentina

Distributional changes can be traced with the help of the Encuesta Permanente de Hogares (EPH), the main household survey in Argentina. The EPH is conducted each May and October by the Instituto Nacional de Estadística y Censos (INDEC). It now covers 31 urban areas which are home of 75% of the Argentine urban population, which in turn represents 85% of Argentina's total population.[1] The number of observations of each survey is around 80,000. The EPH gathers information on individual sociodemographic characteristics, employment status, hours of work, wages, incomes, type of job, education, and migration status. The EPH is available for the Greater Buenos Aires (GBA) since 1974. The rest of the urban areas have been added during the last two decades.

Income inequality has significantly increased since the 70s (see Figure 2.1). The Gini coefficient for the distribution of equivalized household income in Greater Buenos Aires climbed from 0.324 in 1974 to 0.518 in 2003.[2] Inequality greatly increased in the second half of the 70s, remained stable in the first half of the 80s and substantially increased during the macoeconomic crisis of the late 80s. After stabilization, inequality went down, although did not reach the pre-crisis levels. The 90s were again times of increasing inequality: the Gini climbed 6 points from 1992 to 1998. The recent macroeconomic crisis of 2001-2002 pushed the Gini another 4 points up.

The rest of this section is aimed at showing (i) that the pattern of Figure 2.1 is robust to various methodological considerations, (ii) that the increase in inequality suffered by Argentina is very large compared to changes experienced in other Latin American countries, and (iii) that it was large enough to have had dramatic consequences on poverty and welfare. We finally show estimates of polarization and mobility, two distributional dimensions closely related to inequality.

2.1. *Robustness to measures, variables and geographical areas*

Table 2.1 shows various inequality indices for the distribution of equivalized household income in the GBA. All measures suggest the increasing pattern shown in Figure 2.1. The reported inequality growth is even larger for indices attaching greater weights to the bottom tail of the distribution (*e.g.* Atkinson with inequality-aversion parameter equal to 2). The poor have significantly lost in relative terms: the share of the poorest decile fell from 3% in

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[1] Although the EPH does not meet one of the Deininger and Squire (1996) criteria since it is an urban survey, it represents a very large share of Argentina's population. Additionally, the missing population does not seem to affect many results. For instance, using a recent survey conducted by the World Bank that include rural areas, we find only a negligible difference in all inequality measures when we include or ignore rural areas.

[2] Equivalized household income for a given individual is defined as total household income divided by the number of adult equivalents in the household raised to a parameter of household economies of scale. In the benchmark case we take the adult equivalent scale used for official poverty estimates, and a parameter of economies of scale equal to .8 (see Deaton and Zaidi, 2002). All values are for the October wave of the EPH, except 2003, where the May wave is used. The Greater Buenos Aires (GBA) is an urban area with around 1/3 of the Argentine population.

1974 to 1.2% in 2003, while the income ratio between the two extreme deciles rose from 8 to more than 30 in three decades.

The inequality patterns are similar when considering other measures of household income (*e.g.* household per capita income in Table 2.2), or individual labor income variables (*e.g.* earnings in Table 2.3 and hourly wages in Table 2.4). The increase in wage inequality was not as large as the increase in household income inequality, but anyway substantial: while the Gini for the equivalized household income distribution climbed 19 points between 1974 and 2002, the increase for the hourly earnings distribution was 10 Gini points.

In part of the following analysis we select six particular years: 1974, 1980, 1986, 1992, 1998 and 2002. These years allow defining five sub-periods of the same length (with the exception of the last one) and represent years of macroeconomic stability, relative to the Argentine standards.[3] Of course, all years have some peculiarities that make them non-strictly comparable, but it should be noticed that the distribution appears to be rather stable around those selected years.[4] Table 2.5 shows changes in inequality measures in the five sub-periods. For most measures the greater increase was between 1992 and 1998, followed by 1998-2002 or 1974-1980, depending on the index. Note that in the 80s household inequality increased, while earnings and wage dispersion went down.

Lorenz dominance analysis confirms the increasing pattern in inequality. From all the possible combinations of the six selected years by pairs, in all but 1980-1986 there is Lorenz dominance of the first year over the second for the distribution of equivalized household income. Figure 2.2 shows that the Lorenz curves for the six selected years do not cross.[5] The graph is illustrative of the greater distributional shift during the 90s. The estimated density functions of Figure 2.3 are also clear in showing strong distributional movements. The densities have become progressively flatter with a thicker left tail, implying higher inequality and poverty.

So far all statistics refer to the GBA, since the EPH was initially conducted only in that area, and slowly extended to other urban areas. Table 2.6 shows statistics for the aggregate of 28 urban areas covered by the EPH, but restricting the analysis to 1992-2003. The increasing pattern shown for GBA in Figure 2.1 is also noticeable for all urban Argentina. Notice that the increase in inequality in the 90s was somewhat higher in GBA: while the Gini for the distribution of equivalized household income grew 10 points in that city between 1992 and 2002, the increase was 8 points for the aggregate of all urban areas.[6]

In Table 2.7 we show the Gini coefficient for the distribution of several household income variables both in GBA and Argentina for selected years. Columns (i) to (v) consider different adult equivalent scales, column (vi) restricts income to labor sources, column (vii) considers total household income without adjusting for family size, while columns (viii) to

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[3] In October 2002 the macroeconomic crisis of 2001-2002 seemed to have ended.

[4] With data taken from Altimir (1986), Gasparini (1999) reports Ginis for the 50s and 60s similar to that of 1974.

[5] Lorenz curves for 1980-1986 cross at the bottom tail, but that cannot be seen in the graph.

[6] See the web page of CEDLAS (www.depeco.econo.unlp.edu.ar/cedlas.htm) for inequality statistics for all urban areas.

(xi) restrict the analysis to people in the same age bracket to control for life-cycle factors. Results do not significantly differ from the ones depicted in Figure 2.1.

All previous inequality measures are computed from the EPH, which is a *sample* of the population. Measures are then subject to the sample variability problem. In Table 2.8 we show standard errors for the Gini coefficients of the equivalized household income distribution in GBA.[7] Although changes between (especially subsequent) years are not always statistically significant, the inequality pattern is quite robust to the sample variability problem.

2.2. *Argentina in Latin America*

Argentina has traditionally been one of the most equal countries in Latin America, along with Costa Rica and Uruguay (Londoño and Székely, 2000). The presence of a large middle-class was a distinctive feature of Argentina's economy. Figure 2.4 shows the Gini coefficient for the distribution of equivalized income for most Latin American economies. In the early 90s and despite 15 years of increasing inequality, Argentina remained as one of the low-inequality countries in the region.

The Argentina's distributional story in the last decade was substantially different from that of the rest of the region. Although inequality increased in many countries, especially in South America, changes have been small compared to the ones experienced by Argentina.[8] The second panel of Figure 2.4 suggests that Argentina no longer belongs to the low-inequality group within LAC. It is interesting the comparison with Uruguay: once almost identical, the distributions of these two neighbor countries are now clearly different, after three decades of relative distributional stability in Uruguay and turbulence in Argentina.

2.3. *Poverty*

The distributional changes reported so far had profound consequences in terms of poverty. Figure 2.5 shows the poverty headcount ratio for the GBA area. While poverty was close to developed-countries records in 1980, it reached developing-countries figures by 2002. Poverty slowly increased during the first half of the 80s, and skyrocketed during the hyperinflation crisis. After a sharp fall in the early 90s, the poverty headcount ratio increased from 18% to 26% between 1992 and 1998, despite strong economic growth. The recent crisis generated an unprecedented increase in poverty that reached more than 50%. Although it is likely that most of this increase will be undone as the economy overcome the crisis,[9] the headcount ratio would still be at very high levels compared to historical records, and considering Argentina's economic potential, and even current levels of GDP. Notice from Table 2.9 that the increase in poverty is even deeper when considering not only the number of individuals below the poverty line (FGT(0) or headcount ratio), but also their

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[7] Standard errors and confidence interval are computed by bootstrapping techniques. Standard errors for other indices are available from the author upon request.

[8] The raise in the Gini in Argentina was almost double the one in Venezuela, which ranks second according to inequality increases (Gasparini, 2003).

[9] The official poverty line is currently close to the mode of the distribution: a small improvement in economic conditions would imply a large fall in the official measures of poverty.

income relative to the poverty line (FGT(1) and (FGT(2)). The increase in poverty is not a phenomenon restricted to the Greater Buenos Aires area. Gasparini (2002) reports similar increasing poverty patterns for most urban areas since 1992.

2.4. *Aggregate welfare*

Despite the raise in inequality, aggregate welfare may increase if, for instance, income goes up for all quantiles of the distribution. By showing growth-incidence curves Figure 2.6 suggests that in none of the analyzed periods that was the case.[10] Actually, real income fell for the bottom percentiles of the equivalized household income distribution in all the 5 periods considered. All the growth-incidence curves have a positive "slope", indicating non-poor growth. Table 2.10 shows the average growth-rates by quintile and reinforces the idea of unbalanced growth. The poor have performed worse than the rich both in expansions and in recessions.

Figure 2.7 shows the value of aggregate welfare for different functions, setting 1980=100. All functions report a substantial welfare fall during the "lost decade" of the 80s, due to the decrease in mean income and the unequalizing distributional changes of the late 80s. Welfare unambiguously increased in the first half of the 90s (at least for the value judgments implicit in the functions considered in the Figure), fueled by strong growth, and despite the raise in inequality. The period 1994-1998 is interesting, since mean income moderately increased and the distribution became substantially more unequal. These movements generate divergent patterns in the assessment of welfare according to different value judgments. While for an inequality-indifferent value judgment (labeled as *Bentham* in the Figure) welfare increased in that period, for those value judgments attaching more weight to the bottom tail of the distribution (*e.g.* Atkinson (2)), welfare substantially decreased. The recent recession and crisis period 1999-2002 does not generate any discrepancy: as income fell and the distribution became more unequal aggregate welfare dramatically decreased for any function considered.

It is interesting to stress the relevance that the attitudes toward inequality have in the views of the economy. Figure 2.7 shows that while the assessment of the performance of the Argentina's economy during the 90s was clearly positive for someone indifferent to inequality considerations, the evaluation for other value judgments was neutral, and for some other clearly negative.

2.5. *Polarization and mobility*

Polarization and mobility are two other dimensions of equity that have recently received attention in the literature. Polarization refers to homogeneous clusters that antagonize each other. Table 2.11 shows the Wolfson (1994) and Esteban, Gradín and Ray (1999) indices of bipolarization for GBA 1974-2002, and Argentina 1992-2002. Polarization and inequality can go in different directions. This was not the case in Argentina, where the distribution became more unequal and more polarized at the same time.

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[10] We rescaled incomes to match National Account disposable income. Not making this adjustment implies a more dramatic fall in real incomes for all the population over the three last decades.

Inequality may be seen as not so disturbing when mobility is high or at least increasing. A mobility study ideally requires panel data, which is absent in the Argentine case.[11] Table 2.12 reports results for educational mobility - an imperfect substitute of a living-standards mobility study. Following Andersen (2001) we show an educational mobility index, defined as 1 minus the proportion of the variance of the schooling gap that is explained by family background (parental education and income), where the schooling gap measures years of missing education. According to table 2.12 there are no signs of increasing educational mobility in the country in the last three decades.

3. Exploring the direct determinants of distributional changes

Income measured in the EPH, as in most household surveys, comes mostly from labor sources. Returns to capital, benefits and rents were surely modified by all the economic changes that Argentina has gone through. However, their distributional impact is not well captured in the statistics, since these income sources are seriously under-reported. In this section we explore the direct determinants of changes in the distribution of household *labor* income in GBA.[12] We start by looking at the results of simple wage equations.

Figure 3.1 shows the wage-education profiles that results from estimating Mincer equations controlling for sample selection. Each line indicates for different educational levels the expected hourly wage for a male household head, aged 40, married, with two children, and not attending school. Returns to education are always positive. Returns decreased for secondary and college graduates between 1980 and 1986, and remained remarkable constant, when comparing 1986 and 1992. In contrast, the second panel of the Figure shows a substantial convexification of the wage-education profile in the 90s, which implies a widening wage gap, particularly between college-educated people and the rest.

The Mincer equations reveal another relevant phenomenon: the dispersion of the residual term remained rather constant in the 80s, while it became substantially increasing in the last decade. Figure 3.2 documents this fact by showing the standard deviation of the error term for regressions of hourly wages for household heads, spouses and other persons in the household. The increasing dispersion in the unobservables has been interpreted in the literature as an increase in the returns to some unobserved productive "assets" in the labor market, like ability, school quality, or connections, and it is consistent with the raise in the returns to formal education, the other relevant asset for achieving labor market success.

Hours of work have also changed in an unbalanced fashion across educational groups. While unskilled workers now work fewer hours than before, skilled workers have increased their time in the labor market. Figure 3.3 documents these divergent patterns by showing

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[11] The EPH is a rotating panel where a household remains in the sample just one year and a half.

[12] Although the geographical constraint certainly limits the scope of the conclusions in this and the next sections, it should be noticed that (i) one third of the population of Argentina lives in GBA, (ii) there were no significant migratory movements (neither in population nor in economic activity) for the last 30 years, and (iii) changes in the labor structure for the rest of urban Argentina are similar to those of GBA since the late 80s, when data is available for more urban areas.

predicted hours from a Tobit model. Changes were small during the 80s; instead they became very significant and clearly unequalizing in the following decade.

Inequality has increased in the 90s along with an unprecedented growth in unemployment. The unemployment rate was around 2.5% between 1974 and 1980, climbed to around 5% in one decade, and then in a few years jumped to around 15%. Actually, unemployment increased to almost 20% during the Tequila crisis and the 2001/02 crisis. Figure 3.4 shows that the increase in the "equilibrium" unemployment rate from 5% to 15% is basically due to a large increase in labor market participation. Women and youths have moved massively to the labor market but faced an economy with a rigid employment rate. The problem became even worse in recession times when employment temporarily fell. When unemployment is basically the consequence of increasing labor market participation, instead of falling employment, its effect on inequality or poverty is less obvious. If for instance a youth enter the labor force but is unable to find a job, the unemployment rate goes up, but the income distribution remains unchanged (in both labor situations the youth's earnings are zero).

A microsimulation analysis can shed light over the distributional impact of the factors discussed so far. We model wages and hours of work as parametric functions of observable characteristics, and interpret the residuals of the regressions as the effect of unobservable factors. For instance, the individual i's hourly wage in t can be written as $w_{it} = X_{it}\beta_t + \varepsilon_{it}$ where X is a vector of observable characteristics (typically age, sex and education), β is a vector of parameters, and ε is an error term. The basic idea of the microsimulations is to find the counterfactual distribution of w that would be generated in a given period t_1 if some of the right-hand-side elements of the previous equation took the observed values in t_2 and the rest remained at their values in t_1. The difference between the real distribution in time t_1 and the counterfactual one characterizes the distributional impact of the factors modified in the simulation.

In Table 3.1 we present the results of applying this methodology to characterize changes in the distribution among workers of hourly wages and earnings, and the distribution among individuals of equivalized household labor income between 1980 and 2002.[13] We investigate the effect of changes in the returns to education, gender and experience in terms of hourly wages (columns (ii) to (v)) by changing the corresponding coefficients (educational dummies, male dummy, and age and age squared) in the wage equation. We trace the effect of these changes not only on the distribution of wages, but also on the distribution of earnings and equivalized household labor income. In column (v) we simulate wages in time t_1 by assuming the distribution of unobservables estimated in time t_2. We also investigate the impact of changes in the parameters of the educational dummies in a (Tobit) hours-of-work equation, separating out the effect on hours of work (column (vi)) and employment (column (vii)). Finally, to compute column (viii) we simulate the educational structure observed in t_2 on the population in t_1, keeping the parameters and unobservables fixed at their values in t_1. Table 3.1 shows the average results of these exercises changing alternatively the base year. Results should be read as follows. The Gini coefficient of the

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[13] The methodology to implement these decompositions closely follows Gasparini *et al*. (2003). We could not include 1974, because data limitations (*e.g.* absence of hours of work in the dataset).

earnings distribution changed 7.3 points between 1992 and 1998. If only the educational dummies in the hourly wage equation had changed between those years, the Gini would have increased on average 2.9 points, which implies a sizeable unequalizing effect of the increase in the returns to education on the earnings distribution.

Table 3.1 suggests some interesting results. The change in the returns to education was equalizing in the 80s, and contributed to a fall in wage and earnings inequality. This effect was reversed in the 90s: the increase in the returns to education played a very significant role in rising inequality in the last decade. The returns to unobservable factors in terms of wages, and the returns to education in terms of hours of work played in the same direction: slightly equalizing in the 80s and substantially unequalizing in the 90s. It seems that changes in the gender wage gap and the returns to experience did not play a significant role in shaping the income distribution. Although Argentina experienced a large increase in unemployment, the employment rate has not significantly changed over most of the period, which accounts for the negligible effect reported in column (vii). Finally, changes in the educational structure of the population were mainly unequalizing, as the size of the college group expanded.[14]

The analysis of this section suggests that unskilled workers -both in terms of formal education and in terms of unobservable factors- have lost in terms of hourly wages and hours of work during the period 1992-2002, and that these changes have had a very significant role in shaping the distribution of hourly wages, earnings, and household income. In the next section we link these phenomena with the economic changes that have occurred in Argentina, in particular the process of economic integration to the global economy.

4. Integration and inequality

In this section we describe the process of integration of Argentina to the global economy, review the theoretical links between this process and the rise in inequality, and provide evidence on these links based on own estimates and results from the recent literature.

4.1. The process of integration

For many decades Argentina was a rather closed economy both regarding the goods and capital markets. With the exception of a short period of liberalization in the late 70s, the economy traditionally had low levels of trade and financial integration and low rates of absorption of production and organizational technologies. After a timid movement toward more openness in the late 80s, the new administration that took power after the hyperinflation of 1989 implemented in only a few years a broad range of market-based reforms that dramatically changed the integration of Argentina to the international markets. In just a few years, Argentina, formerly a typical closed economy, became a member of the global economy.

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[14] The college group is still small in size, with average earnings far from the overall mean, and with high within wage dispersion. These characteristics likely imply an unequalizing effect as the size of this group increases.

On the one hand, tariffs were substantially reduced and most barriers to international trade were eliminated. Additionally, the implementation of Mercosur, a regional trade agreement with Brazil, Uruguay and Paraguay, significantly increased trade with these neighbor countries. The share of goods imports in the GDP dramatically increased from 4% in the 80s to more than 10% in the 90s. Also, its structure changed: the share of capital goods in total imports increased around 10 percentage points in the early 90s.

Regarding capital markets, although most legal constraints on capital movements had already been removed in the 70s, the macroeconomic and institutional instability of the 80s isolated Argentina from the international credit circuit. The perception by foreign investors of greater economic and institutional stability stimulated capital inflows since 1991. Keys to this change were the Convertibility Plan that pegged the peso to the dollar and prevented the government from financing with monetary emission, and a range of market-based reforms including a massive process of privatizations and deregulations. The favorable international financial conditions also contributed to the massive inflow of foreign capitals, which added to the substantial increase of the gross fixed investment in the 90s compared to previous decades. Foreign direct investment as a share of GDP increased from an average of 0.4% in the period 1970-1990 to 1.6% in the period 1991-1997 (Martinez *et al*., 1998). The impact of foreign investment is clear in the structure of fixed investment: the share of foreign durable equipment for production in the fixed gross investment increased from 10% to 30% in the early 90s. Around 47% of total direct foreign investment in 1992-1996 went to the service sectors, attracted by the privatization process (Kulfas and Hecker, 1998). The rest went mainly to extractive activities and the manufacturing sector.

The import-substituting industrialization policies in place for decades in Argentina were not successful in terms of technological progress. The industrialization process was characterized by large productive inefficiencies, scarce innovations and slow incorporation of new technologies. In contrast, the reforms of the 90s promoted a substantial change in productivity and technological advance. FIEL (2002) documents the increase in TFP during the 90s using both a growth-regression and a micro-accounting approach. The significant increase in productivity in the 90s contrasts with the frustrating experience of the 80s.

It is difficult to find measures of technological progress, in particular covering long periods of time.[15] However, given that technology is frequently incorporated into new capital goods,[16] especially those from developed countries, the noticeable increase in private investment as a proportion of GDP (44% between the 80s and the 90s), the fall in the average age of the capital stock (from 8.8 years in 1989 to 5.9 years in 1996), and the increase in the imports of capital goods (30% of total investment in 1999 from a level of 8% in 1983-1990), suggest a strong process of new technology incorporation.

This process was encouraged by several factors. First, both deregulation of many domestic markets and the removal of barriers to international trade forced private firms to seek the

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[15] The Encuesta Tecnológica that includes many questions on technology and productivity was introduced in 1996, and implemented only twice, 1996 and 2001. Data however is not available for the 2001 survey yet.

[16] See Grossman and Helpman (1994).

productivity gains necessary to stay in business.[17] Second, the openness of the Argentine economy just in a moment of increasing globalization and diffusion of new communication technologies induced the access to state-of-the-art production technologies. Third, the price of capital goods dramatically fell at the beginning of the 90s following favorable tariff treatment for capital imports and the real exchange rate appreciation. As suggested, imported capital goods are an important vehicle for technology transfer. Finally, as it was mentioned above, foreign direct investment greatly increased in the 90s.[18] Besides promoting improvements in the management and international marketing of domestic firms, it tends to favor the access to foreign technologies: by keeping the control over the use and benefits by the owner, direct foreign investment eliminates the usual resistance to technological transfer towards economies with a weak protection of property rights. Likewise, through the contact with providers and clients, the firms receiving foreign investment - for example, the local subsidiaries of multinational firms- generate knowledge spillovers over other domestic firms.[19]

The core of the whole process of reforms -stabilization plan, trade and financial liberalization, privatizations, and deregulations- were carried out in no more than five years, with basically no gradual schedule to allow the private sector adjustment to the new circumstances. On the contrary, many public subsidies to the productive sector were reduced or eliminated, and some measures of flexibility in the labor market were introduced. The early 90s were years with a lot of action in terms of changes in the organizational and productive structure of the firms. In contrast to other economies that gradually incorporated new technologies (either because they were already open, like most developed countries, or because the openness process was gradual, like several LAC countries), it is likely that Argentina experienced a true technological shock, as firms used to certain technologies for decades suddenly changed to state-of-the-art techniques.

Data on the pace, speed and depth of the reforms is not easy to find. There have been some efforts in computing indices of the reforms (Lora (1997) and Morley *et al*. (1999)). In these studies Argentina is identified as a high-speed reformer in the early 90s. Figure 4.1 shows data from Morley *et al*. (1999) on indices for reforms on three areas closely related to integration and technology incorporation: international finance, trade and privatizations. In all these areas changes in Argentina seem to have occurred more rapidly than in the rest of the countries. This is evident from the figure, even when (i) the index for trade reform does not include quantitative restrictions, which were very relevant in Argentina and were mostly removed in the early 90s, and it does not properly capture the formation of the Mercosur, and (ii) the index for privatizations depends (negatively) on the value-added in state-owned enterprises: had the index been defined in terms of volume of sales the assessment of the depth of the Argentine privatizations would have been greater (see Lora, 1997).

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[17] Consistent with that, there exists evidence on a stronger increase in productivity in the private sector relative to the public sector, and in tradable goods relative to nontradable goods (FIEL (2002), and Gay (1998)).
[18] See Katz (1999) among others.
[19] See IFC (1997) and Blomstrom and Kokko (1996).

4.2. Integration and distribution: theoretical links

The effects of increasing economic openness on the within-country distribution of well-being has long been a concern for economists and policy-makers. In the last decades this topic has occupied a central position in the economic debate, first as a consequence of rising earnings inequality in the United States and England during the 80s and 90s, and more recently as part of the debate on the possible drawbacks of globalization.

Increased openness can affect the income distribution through multiple channels: sector reallocations and changes in the use of factors within industries are the two most discussed in the literature. When a country carries out a trade liberalization reform, domestic prices change, which generates a reallocation of resources across sectors, which in turn affect factor prices (the famous Stolper-Samuelson theorem in play). If, as some researchers find, Argentina were a country abundant in natural resources and skilled labor, relative to the world average and to its main trade partners in the Mercosur,[20] trade liberalization would imply a shift towards production and employment in sectors that use those factors more intensively. That in turn would trigger a raise in the return to natural resources and a widening of the wage gap between skilled and unskilled workers.[21]

Greater integration to the world markets for an economy like Argentina can affect inequality through a second channel. As argued above, increased openness implies the fall in the price of capital goods and the introduction of new technologies. Given that capital is more complementary of skilled labor than of unskilled labor, and that new technologies are mostly skilled labor intensive, we expect that integration brings about an increase in the demand for skilled labor in all productive sectors, and hence an increase in the skill premium.[22]

The effects of integration on poverty depend on its effect on growth and inequality. While there is a large literature on the positive effects of openness on growth (Bourguignon *et al*. (2002), Michaley *et al*. (1991), Sachs and Warner (1995)), we have just discussed the potential unequalizing effect of integration on the income distribution. However, and although there are opposing views, there is a relatively wide consensus in that more integration to the world economy on average implies higher income or faster growth, and that growth, more than anything, is behind the successful stories of poverty reduction.[23]

The empirical study of the links between globalization and distribution faces two formidable problems in the case of Argentina. On the one hand there are severe data limitations to implement many research strategies that have been applied to other (mostly developed) countries. Secondly, all sorts of economic reforms were carried out in just a few years, so it becomes difficult to single out the effect of each of the reforms on the income

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[20] See Cristini (1999) and Porto (2000).

[21] See Wood (1994) and Leamer (1995) for this argument applied to the case of the US.

[22] See Acemoglu (2002) and Krusell *et al*. (2000) for models of these arguments.

[23] See Berry (2002) and Rodrik (2001) for views that challenge this "consensus". Anyway as Rodrik puts it "no country has developed successfully by turning its back on international trade or long-term capital flows".

distribution. In the rest of this section we contribute to the understanding of distributional changes with some evidence, and report evidence from the recent literature.

4.3. Between and within factor reallocations

The sectoral structure of the economy has substantially changed in Argentina in the last three decades. Table 4.1 shows the share of each sector of activity in total hours of work in the Greater Buenos Aires area. The most notable change in the labor structure since 1974 has been the fall in employment in the manufacturing industry, and the increase in public sector and in professional and business services employment (see Figure 4.1). While 38% of work hours were in the manufacturing industry in 1974, that value dropped to just 19% in 1998, and 15% in 2002. On the other hand, while in 1974 21% of hours were in the more skilled-intensive sectors of professional and business services and the government, that share rose to 39% in 1998, and 46% in 2002. These changes have occurred over the whole period under analysis, although the drop in low-tech manufacturing industry and the increase in professional services were deeper during the two periods of liberalization (74-80 and 92-98). The share of employment in public administration, education and health increased particularly during 86-92 and 98-02.

These patterns do not substantially varied as we divide the population of workers by skills. Workers with less than high school have lost jobs (or hours of work) in the manufacturing sector over the last three decades. While some have joined the pool of the unemployed, others have found new jobs in other sectors, especially in the public sector, and in the wholesale and retail sectors. Semi-skilled workers (those with a high school degree) have also lost jobs in the manufacturing industry, while found employment in commerce, utilities and the public sector. The industry downgrading also affected skilled labor, although less than it impacted unskilled labor. College graduates have moved in particular to the professional and business services sector during 74-80 and 92-98, and to the public sector during 86-92.

The educational structure of the labor market has been substantially changing in Argentina at least during the last three decades, according to the results of table 4.2. While the share of workers with less than high school in aggregate labor was 67% in 1974, that share dramatically fell to 32.7% in 2002. On the other hand, the share of college graduates rose from 10.3% to 32.4% in the same period. These changes are mainly due to an education upgrading of the population, but also due to the increasing difficulties for the unskilled to find employment.

Table 4.3 shows the share of each type of labor by sector of activity. Compared to professional services and the public sector, the manufacturing industry is intensive in unskilled labor. For instance, while in 1998 61% of workers in the low-tech industry were unskilled, only 12% were in that group in the business sector. The sectoral employment changes reported in table 4.1 were then clearly in favor of skilled labor. The public sector (public administration, health and education) and the private sector have alternated in shifting the relative demand for skilled labor: it was the professional and business sector in 74-80 and 92-98, and the public sector in 80-86 and 98-02. Both sectors demand different types of workers: the public sector heavily demands teachers, nurses and policemen who

mostly belong to the upper educational group, but have less skills, at least in terms of years of education, and earn lower wages than the average in that group. Hence the impact on earning inequality is likely to be smaller when the public sector expands than when the professional and business sector grows.

Recall from last section that the relative wage for skilled labor slightly decreased in the 80s. Table 4.3 reports a more intensive use of this factor in most sectors. In contrast, the wage premium for skilled workers significantly increased in the 90s. However, nearly all sectors rose the employment share of this factor. This movement is consistent with an increase in the relative productivity of skilled labor brought about either by the increased use of complementary factors in the production process (capital) or by skilled-biased technological change. A third possibility has been mentioned in the literature: some skilled workers may occupy unskilled positions and earn wages corresponding to the productivity in those jobs (*e.g.* architects driving a taxi). If that occurs, the factor change in some sectors may be overestimated.

As an exploratory analysis we decompose the changes in the share of each of the three types of labor into (i) changes due to transformations in the sectoral structure of employment (presumably a consequence of changes in the production structure driven by trade liberalization), and (ii) changes due to variations in the intensity of use of different types of labor within each sector (presumably the consequence of the drop in the price of capital goods and/or biased technological change).[24] This decomposition, whose results are shown in Table 4.4 and Figure 4.3, provides a sign of the relevance of each of the two channels discussed in the previous section.

The between effect in the first panel indicates that sectoral changes have favored college graduates over the last three decades. On the contrary, workers with less than high school faced declining demand due to the contraction in those sectors that use unskilled labor more intensively. Notice that these effects were stronger between 1986 and 1992, a period where employment in the public sector increased, while it substantially fell in the manufacturing industry and in unskilled service sectors.

The within effects in the second panel of Table 4.4 have the same signs of the between effects. Firms have changed the way they produce, demanding more skilled labor and less unskilled labor. This phenomenon has been taking place at least since the 70s. The period with the largest positive impact on college graduates employment was 92-98, which is consistent with the story of new capital incorporation and skilled-biased technological change after the reforms. However, this effect is also significant during the 80s, a decade of stagnation in investment and technological progress. It is interesting to notice that figures in the second panel are generally higher than those in the first panel, suggesting that within effects have been stronger than between effects.

The last panel in Table 4.4 shows the overall effect in employment of between and within sectoral changes. Relative employment of the unskilled has dramatically fallen both due to a falling share of unskilled-labor–intensive industries and especially because of less use of

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[24] See Bound and Johnson (1992) among others for similar decompositions.

that factor in all sectors. On the contrary, employment of skilled workers has increased through both channels. The 90s do not look so different from the 80s from this decomposition. Two distinctive factors of the 90s are the stronger positive within effect on college graduates, and an overall poorer performance of the semi-skilled, relative to the 80s.

A plausible, but certainly not unique, interpretation of these results is the following. The 80s combine absence of technological change, and an expansion of the public sector. That expansion did not translate into a higher wage premium, probably because (i) it did not shift the demand for skilled labor too much given the peculiarities of the public sector labor demand commented above, (ii) labor institutions were clearly more active in the 80s than in other periods, and (iii) there was a jump in skilled labor supply in the second half of the 80s, due to the increasing attendance to universities brought about by democracy in 1983. Given the fall in the wage premium most sectors increased the relative use of skilled labor, which accounts for a positive within effect for college graduates in Table 4.4.

The story for the two liberalization periods (74-80 and the 90s) was different: changes toward skilled-intensive private sectors and skilled-biased technological change expanded the demand for skilled labor, and hence the wage premium went up. Weak labor institutions favored this increase. Despite the growth in the wage premium, firms used more skilled labor, given the productivity upgrading. The within effect was larger and more economy-widespread in the 90s than in the late 70s, which is consistent with a stronger process of new capital and technology incorporation.

4.4. Trade, investment and technology

Motivated by the strong economic and distributional changes experienced by Argentina in the 90s several authors have tried to connect the economic reforms to the increase in inequality and poverty. Due to data constraints the existing literature has almost exclusively concentrated on the effect of trade liberalization on income inequality. The general conclusion is that more openness implied a wider wage gap, but that this effect can explain only a small fraction of the total increase in the wage premium.

García Swartz (1998) shows that relative wages and prices evolved according to the predictions of the Stolper-Samuelson theorem. The author however casts doubts over the hypothesis of changes in the productive structure of the economy (sectoral changes) as the main reason behind the distributional changes. Using a different methodology Galiani and Sanguinetti (2003) share that conclusion. They regress the log of individual hourly wage as a function of variables that interact education with import penetration in the sector where the individual works, and a set of controls. They find that in sectors where import penetration was deeper, the wage gap between skilled and unskilled became wider. However, this factor can explain only 10% of the total change in the wage premium. Cicowiez (2002) also finds an unequalizing but very small effect of simulating the fall in tariffs during the liberalization process of the early 90s in a computable general equilibrium model. Porto (2000) finds a somewhat higher distributional effect by estimating the factor contents of international trade and simulating relative wages in autarky.

Trade may modify the real income distribution by changing not only factor prices, but also prices of goods and services. Porto (2002) finds an equalizing distributional effect of liberalization from the consumption side by inspecting changes in relative prices and the bundles consumed by households from the Encuesta de Gastos e Ingresos de los Hogares 1996/7. He finds that the poor consume relatively more tradable goods than the rich do, and concludes that they were the main beneficiaries of the fall in tariffs when considering only this channel.

To take a deeper look at the distributional effects of trade liberalization and technological change on relative wages, we extend the study of Galiani and Sanguinetti (2003) by adding a variable that interacts the worker's education with a measure of capital investment in her sector. Details of this analysis are in a companion paper (Acosta and Gasparini, 2003). In particular, we estimate the following regression

$$\ln w_i = \sum_{g=2}^{3} \sum_{t=92}^{99} E_i^g T_i^t \beta_{gt}^E + \sum_{g=1}^{3} E_i^g m_i \beta_g^m + \sum_{g=1}^{3} E_i^g k_i \beta_g^k + controls + \varepsilon_i$$

where w_i is individual's i hourly wage; E_i^g is the educational dummy for level g; and T_{it} is a time dummy (= 1 if the individual i is observed in year t). The variable m_i is the logarithm of imports penetration over value-added in the sector to which the individual i belongs, while k_i denotes the log of capital accumulation over sectoral value-added. We include in the regressions the usual set of controls (age, age squared, gender, tenure) and fixed effects by year, sector and city. Individual data on wages, education and control variables are taken from the EPH for all urban areas in Argentina from 1992 to 1999. Import penetration data by sector is taken from the External Trade Data-Intal (IDB) while sectoral value-added data was obtained from the Secretary of Economic Policy. A panel dataset on investment in machinery and equipment by industry released by the Department of Industry is our main source of information for capital accumulation.

As they interact with the educational dummy variables, the model allows a differential effect by skill for both imports penetration and capital accumulation. Given that new technology is incorporated into new capital, and physical capital is more complementary with skilled labor than with unskilled labor, we expect that the β_k be increasing in the educational groups. Table 4.5 results are consistent with these expectations: in all the estimated models the coefficients for both the capital investment and the import penetration variables interacting with the college dummy are significantly higher than the coefficients for the variables interacting with the other two educational groups, implying a widening wage gap as import penetration and capital investment increase. Panel A in Figure 4.4 shows the estimated wage gap for a male worker aged 40 with low tenure in GBA, as capital incorporation increases in the sector where he works. Panel B repeats the exercise as import penetration goes up. In both cases the support in the horizontal axis represents the range of variation of investment and imports in the dataset. From the graphs the wage premium appears to be more sensitive to changes in capital investment. In fact, Acosta and Gasparini (2003) find that import penetration accounts for 15% of the actual change in the wage premium, while capital incorporation explains around 60%.

The greater relevance of the capital/technology channel over the trade channel is also found in studies for other countries. In a survey of the literature for the US Katz and Autor (1999) conclude that trade explains around 20 percent of the increase in inequality, while skilled-biased technological change explains the remaining 80 percent. Behrman *et al.* (2003) use household survey microdata on wage differentials by schooling levels for 18 Latin American countries for the period 1977-1998 combined with policy indices, and find that on average liberalizing policies have had a strong positive effect on wage differentials, although that effect tends to fade fairly rapidly. They conclude that "technological progress rather than trade has been the mechanism through which the disequalizing effects have been operating". Sánchez-Páramo and Schady (2003) reach a similar conclusion using repeated cross-sections of household surveys. They stress an important point: although the direct effect of trade on wage inequality may be small, trade is an important mechanism for technology transmission. They show that "changes in the volume and R&D intensity of imports are significantly related to changes in the demand for more skilled workers in Latin America".

Summing up, although none of the pieces of evidence shown in this section is *per se* sufficiently conclusive or convincing, nearly all of them point to the same conclusions. The integration of Argentina to the global economy accelerated in the beginning of the 90s seems to have had a significant unequalizing impact on the wage gap between skilled and unskilled workers. The direct impact of sectoral reallocations after trade liberalization seems to have been minor. The (scarce) evidence on the distributional impact of the increase in capital investment and skilled-biased technological change suggests effects of a larger magnitude.

4.5. Other factors

As it was stated before, many changes have occurred during the 90s beyond those mentioned so far that might have affected the income distribution. The strength of some labor institutions have varied over time in Argentina. Two of the periods of greater distributional changes coincide with weak labor institutions: the military regime banned unions during the second half of the 70s, while as a consequence of an alliance with the government unions remained quiet during the 90s. Also in both periods the minimum wage became non-binding. Unfortunately, there is not quantitative evidence on the effect of these institutional factors on inequality.

The reforms of the 90s increased the returns to non-labor factors. Being Argentina a country with large endowments of natural resources, trade openness generated an increase in the returns to these factors. Also, the pro-market reforms, especially the reduction of the government's role in the economy, encouraged private business and increased aggregate profits. The substantial raise in total factor productivity would have also contributed to feed entrepreneurial benefits. The share of non-labor sources in the GDP increased from 36% in 1993 to 43% in 2000 (DNCN, 2003). The share of capital, rents and profits in the EPH is much lower and has increased substantially less (from 2.1% to 2.8% in the same period).

Since capital income is more concentrated in rich households this fact implies that both the level and the increase in recorded income inequality are underestimated.[25]

Demographic factors have not been absent in shaping Argentina's household income distribution. During the last two decades fertility decisions have varied significantly and not uniformly along the income distribution. The average number of children under 12 per household in the GBA in the bottom quintile of the parental income distribution was 1.33 in 1974 and 1.95 in 1998. The corresponding figures for the top quintile were 1.24 and 0.97. This divergent pattern in fertility decisions across income strata was stronger in the 80s. Using microsimulations Marchionni and Gasparini (2003) conclude that the increase of the family size in low-income households significantly contributed to the observed growth in poverty and inequality in that decade. The impact on the distribution in the 90s was smaller.

4.6. Argentina vis-a-vis the rest of LAC

As it was argued in section 2 the distributional performance of Argentina has been significantly worse than in the rest of the region. Although this paper is not focused on comparative issues, it is possible to sketch some possible explanations for these different patterns. One plausible reason is the faster pace at which Argentina has integrated to the global economy. A sudden technological and organizational shock has a deeper impact than a slow process of technology incorporation with more time to do training and reallocation. The same applies for the economic transformations that follow a sudden and deep trade liberalization process. There is evidence that Argentina was a high-speed reformer in the early 90s, although the evidence on the effect of this speed on wage differentials is still scarce and mixed.[26]

A second reason refers to the fact that the pre-reform economic structure was significantly different in Argentina from most of the rest of LAC. Being a more industrialized economy, technological changes and sector reallocations driven by liberalization probably had a stronger impact in the structure of wages and employment than in other less developed/more agrarian economies. Additionally, compared to most countries in LAC Argentina has a significantly larger share of skilled labor (see Figure 4.5), which may have contributed to a faster and more widespread incorporation of skilled-biased technological innovations.[27] Also, this different factor endowment likely implied greater price changes and reallocations against unskilled labor-intensive sectors after trade openness with countries relative abundant in unskilled labor (*e.g.* China and Brazil).

The demographic factors were also particularly unequalizing in Argentina, compared to the rest of LAC. Figure 4.6 shows the ratio in the number of children under 12 per household between the bottom and top quintiles of the parental income distribution. That ratio increased in Argentina more than in any other country in the region.

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[25] The increase in mean income in the 90s is also probably underestimated for this reason. Actually there is a serious discrepancy on income changes between the EPH and National Accounts.

[26] Behrman *et al*. (2003) find that most of the countries with the greatest widening of the higher-primary wage gap are high-speed reformers in terms of capital account liberalization. Instead, they do not find a significant relationship between speed of the trade policy reforms and the wage gap.

[27] See Acemoglu (2002) for theoretical arguments on this point.

5. Public policy and redistribution

Governments can alleviate or reinforce the "market" distributional changes with fiscal and other public policies. Unfortunately, there are no studies of the redistributive impact of public policies in Argentina on a yearly basis. Table 5.1 shows the results of a rough exercise intended to assess the distributional impact of fiscal policies since 1980. Benefit-incidence results in Flood *et al*. (1994) and DGSC (2002) are used to assign social public spending in each program by deciles of the income distribution. Taxes are assigned based on Gasparini (1998) and DGSC (2002). Reported changes in the distributional impact of expenditures (the tax system) over time basically capture changes in the shares of different public programs (taxes), since there are no available annual benefit-incidence and tax incidence studies.

Social public expenditures (SPE) have been pro-poor (negative concentration index) over all the period considered. Figure 5.1 shows an increase in targeting in the first half of the 80s, (basically due to a jump in the share of basic education and health in the budget since 1983), a sharp fall in the late 80s, and an increase over the 90s to recover the levels of the early 80s. Progressivity of SPE has been growing over time, especially due to increasing income inequality. Taxes are more concentrated in the upper income strata (positive concentration index). Tax concentration rose in the 90s but not at the same speed as income concentration, making the tax system increasingly regressive (increasingly negative progressivity index).

It can be shown (Lambert, 1993) that G^a-G^b=$b(K_e+K_t)$, where G^a is the Gini after fiscal policy and G^b is the Gini before, b is public expenditures as a share of disposable income, and K_e and K_t are the Kakwani's progressivity indices of expenditures and taxes, respectively. Figure 5.2 shows the distributional impact of fiscal policy in terms of the Gini coefficient G^a-G^b, the share of SPE in disposable income and the progressivity of the fiscal policy (K_e+K_t). The distributional impact has varied in the 80s as a result of large changes in the budget size and reallocations across programs. In the 90s the impact remained stable as a consequence of a budget slightly decreasing in size (as a share of income) and slightly increasing in progressivity. Figure 5.3 shows that although fiscal policy reduces the level of inequality it did not have a significant impact in affecting its pattern over the last decades.

Figure 5.4 shows that public expenditure in targeted programs slowly increased in the 80s, dramatically fell in the crisis of the late 80s, and increased in the 90s. However, in terms of the poor population, spending in welfare programs dropped in the 80s and remained roughly constant at these lower levels in the 90s.

Braun and Di Gresia (2003) show that social spending is highly procyclical in Argentina. The cyclical correlation GDP-social expenditures in the last three decades was 0.42, significantly higher than the Latin American average (0.32), and the OECD mean (-0.10). In World Bank (2000) the estimated elasticity of targeted social programs with respect to

changes in GDP for the period 1980-1997 is 1.86.[28] This high positive correlation reveals budget cuts in recession times, when targeted programs are most needed. Braun and Di Gresia (2003) argue that the reasons of such procyclicality lie in the political constraints on savings during expansions, the limited creditworthiness during recessions, and a low share of automatic stabilizers in the budget.

The pro-market reforms helped to achieve unprecedented economic growth rates during most of the 90s in Argentina. However, these extra resources were not efficiently used to deal with the distributional problems that were unfolding during that decade. During the 90s Argentina did not save in order to being able to do countercyclical social policy in crisis times, did not build a larger safety net to alleviate the short-run consequences of increasing poverty, and did not implement effective labor policies to deal with the problems of displaced unskilled workers. It is likely that distributional outcomes would have been less negative had the government used the resources from high economic growth in sound labor and social policies.

6. Concluding comments: reading the evidence

In this concluding section we present our reading of the existing evidence. The view is rather conjectural and shaped by personal beliefs, since the literature has many holes and ambiguities. More research is definitely needed to have a clear view of the distributional changes in Argentina.

Inequality and poverty have dramatically increased in Argentina since the 70s. Rather than reading this fact as a "trend", we believe it is useful to single out the four episodes of distribution deterioration.[29] Two of them coincide with acute macroeconomic crisis (88-89 and 01-02). In these periods poor people are more prone to lose their jobs, reduce hours of work and have larger wage cuts. Although inequality and poverty sharply increase during crisis, as the economy recovers they tend to fall again.[30] In this sense, they probably generate distributional changes that do not last long.[31] The other two episodes of inequality rise (late 70s and 92-98) coincide with periods of "shocks" in the integration of Argentina to the world markets, and of weak labor institutions. These episodes probably have implied distributional changes of a larger duration. Data for the late 70s episode is scarce, so most of the available evidence, including this paper, refers to the closer episode of the 90s.

Increasing integration to the global economy was very likely a significant determinant of the inequality jump in the nineties. Two are the main channels that link integration to inequality. The first one operates through sector reallocations. Being Argentina a country relatively abundant in natural resources and skilled labor, trade liberalization implied a shift

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[28] In contrast to Braun and Di Gresia (2003), estimates in World Bank (2000) imply that social spending is more procyclical than total spending.

[29] Atkinson (1997) stresses the approach of distributional *episodes* rather than trends.

[30] This was the case in the late 80s crisis, in other crisis in the world (*e.g.* see Neri (2000) for Brazil), and it seems to be the case in the current recovery of the Argentina's economy.

[31] Whether inequality and poverty go back to the pre-crisis levels or not, and the reasons why they should are debatable topics. The point is that the inequality and poverty levels of the crisis are only transitory.

towards production and employment in sectors that use those factors more intensively, and in turn an increase in the relative return to natural resources and a widening of the wage gap between the skilled and the unskilled workers. The available evidence shows however that this story explains only a small part of the observed change in the income distribution. Globalization can affect inequality through a second channel. The fall in the price of capital and the introduction of new skilled labor intensive technologies, both likely consequences of the greater integration of Argentina to the world markets, implied an increase in the intensity of use of skilled labor in all the productive sectors, and hence an increase in the skill premium. This effect seems to be a more significant source of increasing income disparities.

It is likely that the impact of globalization on the income distribution was greater in Argentina than in other countries in Latin America in part due to the faster pace at which the country has integrated to the global economy, and as a consequence of a more industrialized economic structure, and a significantly larger share of skilled labor. The reduction in the strength of the labor institutions may have also contributed to this greater impact.

Fiscal and social policies did not have a very active role in alleviating the effects of increasing poverty and inequality. Actually, inequality trends are basically unchanged when government transfers (cash and in-kind) are included in the computation of household income. Argentina did not take advantage of the GDP growth in the 90s to build a social safety net that could have alleviated the market-driven distributional changes, to train or relocate displaced unskilled workers, or to save in order to be able to increase social spending during recessions.

There is a heated debate in Argentina on the merits and demerits of globalization, and the convenience of undoing the process of integration. Many views against globalization point at their distributional adverse consequences. The literature indeed suggests that there have been links between liberalization and the distributional changes in Argentina. However, some qualification should be taken into account before taking that evidence for opposing globalization on distributional grounds. First, it is likely that the speed and depth of the economic changes in Argentina, and the absence of effective redistributive policies, are important in accounting for the jump in inequality and poverty. Other Latin American countries that have taken the road to more integration at a slower pace did not experienced large inequality increases, and in most of them poverty fell.

Second, there is evidence that integration is a powerful instrument for economic growth and hence for aggregate welfare increase (despite its effects on inequality).[32] Opposing to integration and new technology incorporation seems to be an unreasonable policy option, since economic growth is related to the capability of inserting the country in the global economy and of increasing the productivity through the absorption of new technologies. If Argentina decides to abandon the integration process, it is likely that a slowdown in GDP growth would follow. Although a slowdown might not affect inequality, it can have sizeable consequences in terms of poverty. Assuming an annual growth rate of 3% and no

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[32] See Bourguignon *et al*. (2002) for an excellent review of the economic consequences of globalization.

changes in unemployment, inequality and income support programs, a microsimulation exercise from the EPH 2002 yields the result that the poverty headcount ratio could reach 30% in 10 years, from a current level of around 50%. If instead the growth rate were 5% poverty would fall to 23%, while it could be 15% if the growth rate were 8%. The differences could be larger if growth brings about a reduction in unemployment and more resources for income support programs.

Most of the literature, including this paper, suggests that if following these arguments governments decide embracing globalization, they should be very aware of the possible unequalizing consequences of an integration process. In particular, governments should take measures to regulate the pace of the integration to the world markets, to provide the poor and unskilled with adequate safety nets, and to promote education and training to ease the transition. Many authors stress the relevance of transitional compensatory measures and gradual liberalization, although "there is no general prescription for what these policies should be" (Fischer, 2003).[33] Failing to do that may increase the strength of the anti-globalization arguments and place the whole process of integration into risk.[34]

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[33] See for instance Scheve and Slaughter (2001) and Behrman *et al.* (2003) for similar conclusions.

[34] Milanovic (2002) states that "current trends are likely to produce a backlash unless globalization is tamed". Bourguignon *et al.* (2002) also point out that failing to address some of the costs of globalization would risk provoking a backlash.

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Figure 2.1
Gini coefficient
Distribution of equivalized household income
Greater Buenos Aires, 1974-2003
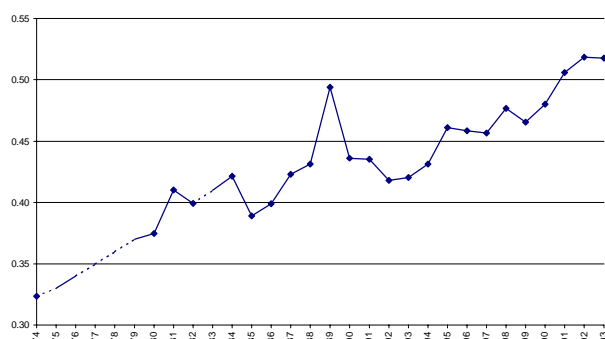
Source: Author's calculations based on the EPH.

Table 2.1
Inequality measures
Distribution of equivalized household income
Greater Buenos Aires, 1974-2003

	Shares of deciles		Ratio					
	1	10	10/1	Gini	Theil	CV	Atk(1)	Atk(2)
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
OCT-74	3.0	25.1	8.2	0.324	0.187	0.752	0.166	0.379
OCT-80	2.6	28.4	11.0	0.374	0.241	0.796	0.209	0.367
OCT-81	2.3	31.8	14.1	0.410	0.308	0.977	0.249	0.427
OCT-82	2.3	30.8	13.2	0.399	0.299	1.011	0.239	0.414
OCT-84	2.0	32.8	16.6	0.421	0.373	1.465	0.269	0.458
OCT-85	2.4	29.2	12.4	0.389	0.262	0.837	0.227	0.400
OCT-86	2.4	30.6	13.0	0.399	0.289	0.939	0.236	0.405
MAY-87	2.3	31.4	13.4	0.402	0.303	1.003	0.241	0.411
OCT-87	2.0	32.3	15.9	0.423	0.329	1.045	0.265	0.453
MAY-88	1.8	33.2	18.0	0.445	0.359	1.070	0.292	0.496
OCT-88	1.9	32.3	17.3	0.431	0.333	1.027	0.279	0.492
MAY-89	1.8	33.9	18.4	0.444	0.382	1.404	0.293	0.511
OCT-89	1.6	38.3	24.1	0.494	0.478	1.411	0.351	0.659
MAY-90	1.7	33.9	19.4	0.450	0.394	1.477	0.306	0.568
OCT-90	2.1	33.9	16.1	0.436	0.370	1.196	0.279	0.465
MAY-91	1.9	33.3	17.2	0.439	0.345	1.009	0.283	0.487
OCT-91	2.1	34.2	16.0	0.435	0.390	1.390	0.277	0.450
MAY-92	2.2	31.2	14.2	0.407	0.296	0.921	0.246	0.423
OCT-92	2.2	31.6	14.7	0.418	0.311	0.952	0.258	0.450
MAY-93	2.0	33.2	16.8	0.432	0.354	1.147	0.276	0.462
OCT-93	1.8	31.4	17.0	0.420	0.316	0.966	0.268	0.479
MAY-94	2.0	32.4	16.2	0.424	0.327	1.010	0.267	0.458
OCT-94	2.0	33.0	16.4	0.431	0.346	1.091	0.274	0.459
MAY-95	1.8	33.0	18.3	0.436	0.343	1.023	0.284	0.497
OCT-95	1.7	35.6	21.2	0.461	0.395	1.142	0.311	0.521
MAY-96	1.7	34.4	20.0	0.451	0.370	1.069	0.300	0.517
OCT-96	1.7	34.7	20.5	0.458	0.388	1.134	0.312	0.557
MAY-97	1.6	34.9	21.4	0.462	0.390	1.114	0.315	0.542
OCT-97	1.6	34.3	21.3	0.457	0.384	1.237	0.311	0.539
MAY-98	1.6	35.3	22.3	0.468	0.396	1.116	0.321	0.550
OCT-98	1.5	35.7	24.3	0.477	0.415	1.161	0.336	0.569
MAY-99	1.4	35.7	25.4	0.473	0.410	1.146	0.334	0.582
OCT-99	1.5	34.7	22.6	0.465	0.388	1.079	0.321	0.559
MAY-00	1.5	36.0	24.2	0.480	0.419	1.148	0.338	0.571
OCT-00	1.4	35.7	26.1	0.480	0.415	1.130	0.344	0.607
MAY-01	1.2	37.7	32.0	0.498	0.455	1.221	0.368	0.629
OCT-01	1.1	37.6	34.0	0.506	0.458	1.174	0.381	0.654
MAY-02	0.9	38.8	42.6	0.522	0.501	1.299	0.409	0.686
OCT-02	1.1	39.3	35.5	0.518	0.492	1.260	0.391	0.627
MAY-03	1.2	38.8	31.2	0.518	0.489	1.258	0.385	0.615

Source: Author's calculations based on the EPH.

CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES welfare function with parameter ε.

Table 2.2
Inequality measures
Distribution of household per capita income
Greater Buenos Aires, 1974-2003

| | Shares of deciles | | Ratio | | | | | |
| | 1 | 10 | 10/1 | Gini | Theil | CV | Atk(1) | Atk(2) |
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
OCT-74	2.8	26.2	9.5	0.345	0.215	0.842	0.187	0.410
OCT-80	2.3	29.2	12.6	0.390	0.264	0.844	0.228	0.409
OCT-81	2.0	32.8	16.6	0.427	0.334	1.038	0.271	0.464
OCT-82	2.1	32.0	15.5	0.420	0.342	1.190	0.264	0.453
OCT-84	1.8	33.8	19.1	0.439	0.398	1.508	0.291	0.495
OCT-85	2.1	30.6	14.5	0.409	0.293	0.902	0.250	0.439
OCT-86	2.1	31.6	15.0	0.417	0.318	1.010	0.258	0.442
MAY-87	2.1	32.7	15.5	0.427	0.350	1.132	0.259	0.439
OCT-87	1.8	33.6	18.9	0.444	0.369	1.163	0.292	0.494
MAY-88	1.6	34.3	21.3	0.462	0.391	1.144	0.316	0.535
OCT-88	1.6	33.3	20.7	0.449	0.363	1.078	0.303	0.534
MAY-89	1.6	35.4	22.1	0.467	0.442	1.831	0.322	0.555
OCT-89	1.4	39.8	28.9	0.515	0.531	1.556	0.380	0.686
MAY-90	1.5	35.1	23.1	0.471	0.438	1.673	0.333	0.538
OCT-90	1.8	35.6	19.7	0.461	0.415	1.284	0.310	0.509
MAY-91	1.7	35.1	20.9	0.462	0.387	1.093	0.313	0.530
OCT-91	1.9	36.2	19.3	0.461	0.445	1.558	0.308	0.494
MAY-92	2.0	33.0	16.6	0.431	0.333	0.988	0.274	0.466
OCT-92	1.9	33.3	17.2	0.441	0.352	1.052	0.287	0.495
MAY-93	1.7	34.8	20.1	0.457	0.398	1.252	0.305	0.503
OCT-93	1.6	32.9	20.1	0.443	0.356	1.069	0.296	0.520
MAY-94	1.8	33.9	19.2	0.447	0.366	1.088	0.295	0.500
OCT-94	1.8	35.0	19.6	0.457	0.395	1.214	0.305	0.503
MAY-95	1.6	34.3	21.6	0.457	0.377	1.085	0.311	0.539
OCT-95	1.5	37.2	25.2	0.484	0.441	1.241	0.341	0.564
MAY-96	1.5	36.1	23.9	0.477	0.420	1.187	0.333	0.562
OCT-96	1.5	36.5	25.1	0.484	0.440	1.256	0.345	0.603
MAY-97	1.4	36.3	25.6	0.486	0.434	1.224	0.347	0.583
OCT-97	1.4	35.8	25.4	0.480	0.430	1.372	0.341	0.577
MAY-98	1.4	36.9	26.7	0.491	0.443	1.222	0.352	0.592
OCT-98	1.3	37.5	29.8	0.501	0.467	1.277	0.369	0.611
MAY-99	1.2	37.3	30.7	0.498	0.459	1.245	0.367	0.623
OCT-99	1.3	36.4	27.0	0.488	0.431	1.168	0.351	0.598
MAY-00	1.3	37.7	29.3	0.503	0.466	1.240	0.370	0.611
OCT-00	1.2	37.5	31.4	0.505	0.468	1.245	0.377	0.647
MAY-01	1.0	39.2	38.3	0.520	0.502	1.319	0.399	0.668
OCT-01	1.0	39.1	40.7	0.527	0.503	1.273	0.411	0.692
MAY-02	0.8	40.6	51.9	0.545	0.557	1.460	0.441	0.721
OCT-02	0.9	40.6	42.7	0.538	0.535	1.334	0.421	0.664
MAY-03	1.1	40.4	37.8	0.539	0.536	1.349	0.418	0.655

  Source: Author's calculations based on the EPH.
CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES
welfare function with parameter ε.

Table 2.3
Inequality measures
Distribution of individual earnings
Greater Buenos Aires, 1980-2003

| | Shares of deciles | | Ratio | | | | |
| | 1 | 10 | 10/1 | Gini | Theil | CV | Atk(1) |
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
OCT-80	2.5	35.2	13.8	0.424	0.377	1.353	0.261
OCT-82	2.5	31.8	12.9	0.395	0.306	1.032	0.235
OCT-85	2.5	31.5	12.6	0.390	0.310	1.201	0.231
OCT-86	2.4	32.8	13.6	0.406	0.334	1.150	0.247
MAY-87	2.5	32.9	13.1	0.410	0.323	1.047	0.248
OCT-87	2.3	33.8	14.7	0.420	0.334	1.035	0.260
MAY-88	2.1	34.7	16.7	0.440	0.372	1.140	0.283
OCT-88	1.9	33.9	18.2	0.437	0.355	1.061	0.284
MAY-89	1.8	36.3	20.3	0.453	0.418	1.403	0.305
OCT-89	1.7	38.1	22.1	0.476	0.469	1.479	0.333
MAY-90	1.9	35.2	18.8	0.435	0.401	1.424	0.293
OCT-90	2.1	34.1	15.9	0.417	0.366	1.258	0.271
MAY-91	2.3	33.6	14.3	0.415	0.336	1.067	0.258
OCT-91	2.4	35.7	15.1	0.429	0.431	1.680	0.280
MAY-92	2.7	31.7	11.8	0.392	0.296	0.993	0.229
OCT-92	2.6	31.7	12.4	0.397	0.300	0.986	0.234
MAY-93	2.3	34.0	14.8	0.417	0.361	1.237	0.261
OCT-93	2.3	33.0	14.2	0.411	0.327	1.060	0.252
MAY-94	2.2	33.1	14.8	0.413	0.324	1.022	0.255
OCT-94	2.4	32.3	13.3	0.402	0.306	0.996	0.241
MAY-95	1.9	33.0	17.3	0.419	0.328	1.001	0.268
OCT-95	1.7	35.0	19.9	0.438	0.369	1.109	0.290
MAY-96	1.9	33.8	18.1	0.428	0.349	1.099	0.275
OCT-96	1.6	34.4	20.9	0.437	0.367	1.118	0.292
MAY-97	1.7	35.8	21.0	0.451	0.391	1.153	0.305
OCT-97	1.7	33.4	19.3	0.429	0.341	1.030	0.282
MAY-98	1.7	35.5	21.3	0.449	0.383	1.128	0.304
OCT-98	1.5	35.7	23.6	0.457	0.397	1.161	0.316
MAY-99	1.6	34.7	21.4	0.447	0.376	1.109	0.304
OCT-99	1.6	34.4	21.2	0.445	0.372	1.098	0.300
MAY-00	1.5	35.6	23.6	0.455	0.397	1.166	0.313
OCT-00	1.4	34.7	24.0	0.450	0.368	1.037	0.309
MAY-01	1.3	35.9	27.4	0.464	0.403	1.143	0.328
OCT-01	1.2	36.5	30.1	0.473	0.414	1.142	0.342
MAY-02	1.1	36.5	32.5	0.473	0.422	1.200	0.347
OCT-02	1.2	38.4	32.1	0.499	0.471	1.304	0.370
MAY-03	1.2	36.8	31.4	0.487	0.437	1.175	0.362

  Source: Author's calculations based on the EPH.
CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES
welfare function with parameter ε.

Table 2.4
Inequality measures
Distribution of hourly wages
Greater Buenos Aires, 1974-2003

	Shares of deciles		Ratio				
	1	10	10/1	Gini	Theil	CV	Atk(1)
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
OCT-74	2.5	29.6	11.7	0.368	0.286	1.163	0.212
OCT-80	2.3	35.5	15.7	0.438	0.406	1.446	0.279
OCT-81	2.3	34.8	14.8	0.429	0.366	1.180	0.267
OCT-82	2.4	35.4	14.9	0.428	0.511	3.457	0.273
OCT-85	2.6	34.2	13.3	0.417	0.369	1.308	0.254
OCT-86	2.6	34.0	13.1	0.413	0.374	1.496	0.251
MAY-87	2.5	34.6	13.6	0.423	0.375	1.322	0.259
OCT-87	2.4	34.1	14.0	0.422	0.343	1.070	0.258
MAY-88	2.2	36.4	16.7	0.451	0.410	1.284	0.292
OCT-88	2.1	34.6	16.4	0.435	0.357	1.076	0.277
MAY-89	1.9	36.4	19.1	0.457	0.410	1.260	0.303
OCT-89	1.9	39.6	21.3	0.491	0.517	1.705	0.342
MAY-90	2.2	35.1	16.1	0.432	0.366	1.144	0.277
OCT-90	2.4	35.1	14.5	0.422	0.389	1.368	0.265
MAY-91	2.4	34.7	14.4	0.425	0.383	1.367	0.265
OCT-91	2.7	32.1	12.0	0.394	0.302	1.005	0.237
MAY-92	2.8	32.0	11.4	0.392	0.301	1.031	0.225
OCT-92	2.8	32.3	11.7	0.396	0.312	1.066	0.230
MAY-93	2.6	32.7	12.6	0.401	0.326	1.136	0.239
OCT-93	2.6	31.9	12.3	0.399	0.303	1.009	0.235
MAY-94	2.4	32.6	13.5	0.406	0.313	1.008	0.244
OCT-94	2.6	32.1	12.2	0.397	0.294	0.950	0.232
MAY-95	2.4	31.9	13.4	0.402	0.313	1.095	0.242
OCT-95	2.3	32.8	14.5	0.413	0.318	0.997	0.253
MAY-96	2.3	34.1	14.5	0.421	0.382	1.525	0.262
OCT-96	2.2	34.4	15.8	0.424	0.368	1.273	0.267
MAY-97	2.1	34.0	16.3	0.430	0.352	1.083	0.272
OCT-97	2.2	33.4	15.2	0.419	0.346	1.157	0.261
MAY-98	2.2	34.4	15.6	0.430	0.360	1.158	0.270
OCT-98	2.0	34.7	16.9	0.436	0.370	1.172	0.279
MAY-99	2.2	32.9	15.2	0.420	0.330	1.030	0.261
OCT-99	2.1	32.9	15.5	0.423	0.333	1.040	0.263
MAY-00	2.1	33.9	16.4	0.430	0.354	1.100	0.274
OCT-00	2.1	33.5	16.2	0.431	0.343	1.034	0.273
MAY-01	1.9	34.6	18.3	0.442	0.365	1.088	0.288
OCT-01	1.8	34.7	19.1	0.448	0.375	1.114	0.296
MAY-02	1.8	34.6	18.8	0.441	0.373	1.164	0.289
OCT-02	1.7	36.7	21.7	0.468	0.431	1.304	0.320
MAY-03	2.0	35.5	17.7	0.449	0.394	1.205	0.294

Source: Author's calculations based on the EPH.

CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES welfare function with parameter ε.

Table 2.5
Changes in inequality measures
Distribution of equivalized household income
Greater Buenos Aires, 1974-2002

	Shares of deciles		Ratio					
	1	10	10/1	Gini	Theil	CV	Atk(1)	Atk(2)
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
Equivalized household income								
74-80	-0.5	3.2	2.7	0.051	0.054	0.043	0.043	-0.012
80-86	-0.2	2.2	2.0	0.024	0.047	0.143	0.027	0.038
86-92	-0.2	1.1	1.7	0.019	0.022	0.013	0.022	0.046
92-98	-0.7	4.0	9.6	0.059	0.104	0.208	0.077	0.119
98-02	-0.4	3.6	11.3	0.042	0.077	0.099	0.055	0.058
Per capita household income								
74-80	-0.4	2.9	3.1	0.045	0.050	0.002	0.041	-0.001
80-86	-0.2	2.5	2.5	0.027	0.054	0.166	0.031	0.033
86-92	-0.2	1.7	2.2	0.024	0.034	0.042	0.028	0.053
92-98	-0.7	4.2	12.6	0.060	0.116	0.224	0.082	0.116
98-02	-0.3	3.1	12.9	0.037	0.067	0.057	0.052	0.053
Earnings								
80-86	-0.1	-2.4	-0.2	-0.018	-0.044	-0.204	-0.014	0.006
86-92	0.1	-1.0	-1.2	-0.009	-0.033	-0.164	-0.013	-0.025
92-98	-1.0	4.0	11.2	0.060	0.097	0.176	0.082	0.160
98-02	-0.3	2.7	8.4	0.042	0.074	0.143	0.054	0.068
Hourly wages								
74-80	-0.3	5.9	4.0	0.070	0.119	0.284	0.067	0.079
80-86	0.3	-1.5	-2.6	-0.025	-0.031	0.049	-0.028	-0.054
86-92	0.2	-1.7	-1.4	-0.017	-0.062	-0.430	-0.021	-0.030
92-98	-0.7	2.3	5.2	0.040	0.057	0.106	0.049	0.095
98-02	-0.4	2.0	4.8	0.032	0.062	0.132	0.041	0.073

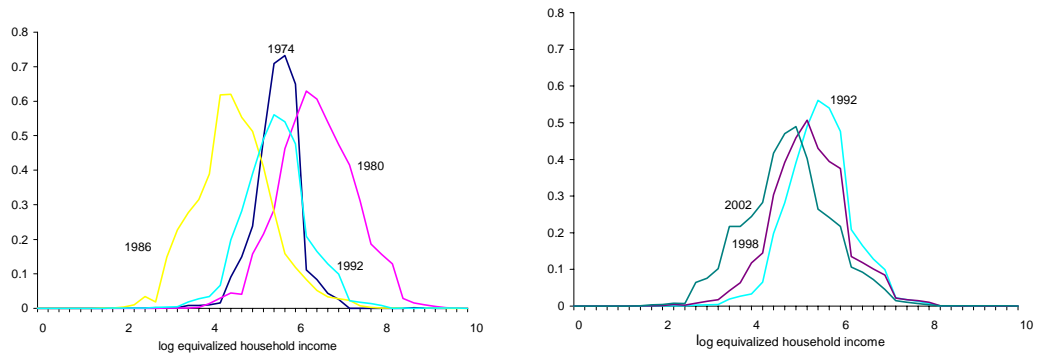Source: Author's calculations based on the EPH.

CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES welfare function with parameter ε.

Figure 2.2
Lorenz curves
Distribution of equivalized household income
Greater Buenos Aires, 1974-2002
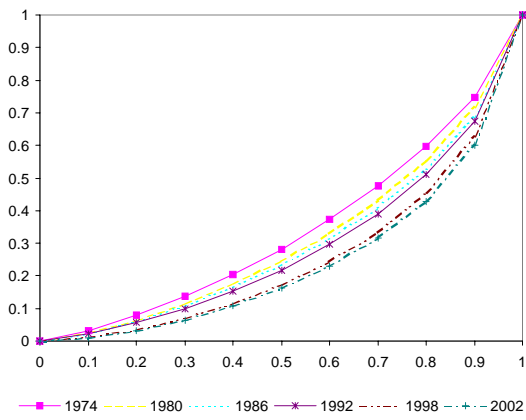
Source: Author's calculations based on the EPH.

Figure 2.3
Density functions
Log of equivalized household income
Greater Buenos Aires, 1974-2002

Source: Author's calculations based on the EPH.
Note: estimation by kernels.

Table 2.6
Inequality measures
Distribution of equivalized household income
Argentina, 1992-2002

| | Shares of deciles | | Ratio | | | | | |
| | 1 | 10 | 10/1 | Gini | Theil | CV | Atk(1) | Atk(2) |
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)
MAY-92	2.1	31.9	15.4	0.418	0.317	0.985	0.260	0.449
OCT-92	1.9	32.5	16.7	0.430	0.331	0.998	0.274	0.472
MAY-93	1.9	33.2	17.7	0.437	0.360	1.155	0.283	0.481
OCT-93	1.8	32.0	17.5	0.430	0.331	1.007	0.277	0.488
MAY-94	1.9	33.0	17.8	0.436	0.347	1.047	0.283	0.486
OCT-94	1.9	33.0	17.3	0.436	0.350	1.082	0.281	0.477
MAY-95	1.8	33.1	18.8	0.439	0.348	1.038	0.288	0.500
OCT-95	1.7	35.0	20.9	0.456	0.388	1.166	0.307	0.518
MAY-96	1.7	34.5	20.9	0.454	0.379	1.106	0.306	0.528
OCT-96	1.6	34.5	21.4	0.457	0.385	1.128	0.312	0.552
MAY-97	1.6	35.1	21.9	0.463	0.397	1.174	0.317	0.542
OCT-97	1.6	34.7	22.0	0.460	0.392	1.251	0.315	0.544
MAY-98	1.6	35.5	22.5	0.469	0.401	1.146	0.322	0.548
OCT-98	1.5	35.8	23.9	0.474	0.414	1.172	0.331	0.558
MAY-99	1.4	35.8	25.3	0.475	0.415	1.172	0.335	0.577
OCT-99	1.5	34.8	22.7	0.465	0.390	1.092	0.321	0.561
MAY-00	1.5	35.7	24.4	0.476	0.415	1.158	0.335	0.572
OCT-00	1.3	35.9	26.7	0.481	0.421	1.195	0.345	0.602
MAY-01	1.2	37.0	30.7	0.491	0.444	1.211	0.360	0.616
OCT-01	1.1	37.2	32.4	0.499	0.448	1.176	0.370	0.632
MAY-02	1.0	38.3	38.5	0.514	0.488	1.316	0.395	0.669
OCT-02	1.2	38.4	31.4	0.507	0.474	1.253	0.375	0.610
MAY-03	1.2	38.2	30.9	0.507	0.470	1.229	0.374	0.612

Source: Author's calculations based on the EPH.
CV=coefficient of variation. Atk (ε) refers to the Atkinson index from a CES
welfare function with parameter ε.

Table 2.7
Gini coefficient
Distribution of household income
GBA, 1974-2002 and Argentina, 1992-2002

| | Equivalized household income A | Equivalized household income B | Equivalized household income C | Equivalized household income D | Equivalized household income E | Per capita income Only labor | Total household income | Equivalized income A Age 0-10 | Equivalized income A Age 20-30 | Equivalized income A Age 40-50 | Equivalized income A Age 60-70 |
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)
GBA											
1974	32.1	31.7	31.1	31.0	32.1	34.5	36.3	31.3	31.5	29.8	31.8
1980	37.6	37.4	37.1	36.9	37.7	39.5	41.9	39.0	35.6	36.6	39.0
1986	40.4	40.0	40.0	39.7	40.8	40.9	43.1	42.0	37.6	40.0	38.5
1992	42.6	41.7	41.8	41.2	42.9	43.8	44.1	42.6	39.5	44.8	42.6
1998	48.1	47.1	47.2	46.4	48.5	50.5	47.2	47.8	45.4	47.6	47.1
2002	52.2	51.3	51.5	50.7	52.6	54.6	49.6	55.1	50.0	53.1	46.7
Argentina											
1992	43.0	42.2	42.3	41.6	43.4	44.7	44.2	43.2	40.0	44.7	42.6
1994	43.7	42.6	42.9	42.0	44.2	45.6	44.1	44.4	41.7	43.8	42.5
1996	46.1	45.0	45.3	44.4	46.6	48.1	45.3	45.4	44.2	48.1	43.0
1998	47.5	46.5	46.6	45.8	47.9	49.8	46.9	47.2	46.4	45.8	45.7
2000	48.3	47.2	47.6	46.6	48.9	51.0	46.3	49.7	45.3	48.7	44.2
2002	51.5	50.5	50.7	49.8	51.9	54.3	48.7	53.6	48.7	52.4	46.5

Source: Author's calculations based on the EPH.
Note: Equivalized income=household income/$(A+\alpha1.K1+\alpha2.K2)^\theta$, where A=adults, K1=children under 5, and K2=children aged 6 to
14. A: θ=0.9, $\alpha1$=0.5 and $\alpha2$=0.75; B: θ=0.75, $\alpha1$=0.5 and $\alpha2$=0.75; C: θ=0.9, $\alpha1$=0.3 and $\alpha2$=0.5; D: θ=0.75, $\alpha1$=0.3 and $\alpha2$=0.5; E:
Amsterdam scale. Adult equivalent equal to 0.98 for men between 14 and 17, 0.9 for women over 14, 0.52 for children under 14, and 1
for the rest.

Table 2.8
Gini coefficient
Distribution of equivalized household income
Standard errors and confidence intervals
GBA, 1974-2003

	Value (i)	Std. Err (ii)	Coef. Var. (iii)	95% interval (iv)
1974	32.4	0.454	1.402	(31.2, 33.0)
1980	37.5	0.342	0.912	(36.8, 38.2)
1982	39.9	0.650	1.628	(38.6, 41.2)
1985	38.9	0.301	0.773	(38.3, 39.5)
1986	39.9	0.387	0.971	(39.1, 40.6)
1987	42.3	0.379	0.897	(41.5, 43.0)
1988	43.1	0.379	0.879	(42.4, 43.9)
1989	39.9	0.589	1.474	(38.7, 41.1)
1990	40.9	0.800	1.956	(39.3, 42.4)
1991	43.5	0.787	1.809	(42.0, 45.1)
1992	41.8	0.411	0.982	(41.0, 42.6)
1993	46.5	0.385	0.828	(45.7, 47.3)
1994	43.1	0.506	1.173	(42.1, 44.1)
1995	46.1	0.416	0.902	(45.3, 46.9)
1996	45.9	0.472	1.030	(44.9, 46.8)
1997	45.7	0.438	0.960	(44.8, 46.6)
1998	47.5	0.397	0.836	(46.7, 48.2)
1999	46.5	0.345	0.742	(45.8, 47.2)
2000	48.0	0.363	0.756	(47.3, 48.7)
2001	50.6	0.348	0.687	(49.9, 51.3)
2002	51.8	0.552	1.065	(50.7, 52.9)
2003	51.8	0.621	1.199	(50.5, 53.0)

Source: Author's calculations based on the EPH.
Note: The Gini coefficient is expressed in the [0,100] interval.
Estimation by bootstrap with 200 replications.

Figure 2.4
Gini coefficient
Distribution of household per capita income
Around 1990 and around 2000
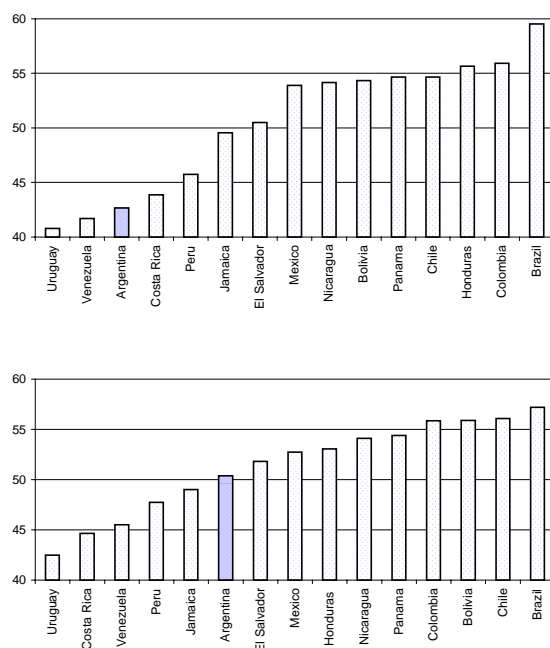
Source: Gasparini (2003).

Figure 2.5
Poverty headcount ratio
Official poverty line
Greater Buenos Aires, 1980-2003
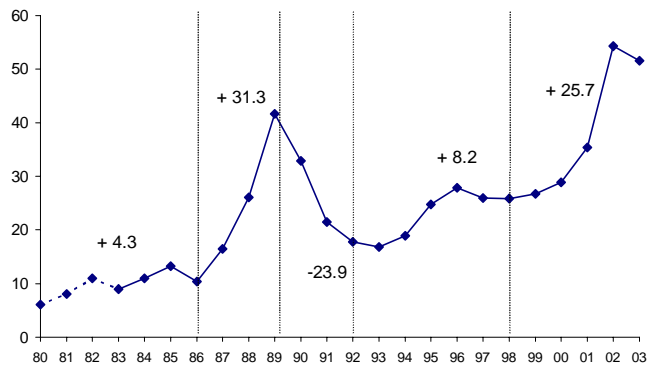
Table 2.9
Poverty measures (FGT)
Official poverty line
Greater Buenos Aires, 1992-2003

	FGT(0)	FGT(1)	FGT(2)
MAY-92	0.193	0.062	0.031
OCT-92	0.178	0.057	0.031
MAY-93	0.177	0.061	0.034
OCT-93	0.168	0.063	0.035
MAY-94	0.161	0.056	0.031
OCT-94	0.190	0.068	0.037
MAY-95	0.222	0.087	0.052
OCT-95	0.248	0.098	0.058
MAY-96	0.267	0.106	0.064
OCT-96	0.279	0.114	0.068
MAY-97	0.263	0.103	0.058
OCT-97	0.260	0.104	0.061
MAY-98	0.243	0.093	0.052
OCT-98	0.259	0.108	0.063
MAY-99	0.271	0.110	0.065
OCT-99	0.267	0.107	0.062
MAY-00	0.297	0.124	0.071
OCT-00	0.289	0.122	0.071
MAY-01	0.327	0.144	0.089
OCT-01	0.354	0.163	0.104
MAY-02	0.497	0.266	0.183
OCT-02	0.543	0.271	0.176
MAY-03	0.516	0.255	0.159

Note: FGT(0)=headcount ratio, FGT(1) poverty gap.

Figure 2.6
Growth-incidence curve
Proportional change in real income by income percentile
Equivalized household income distribution
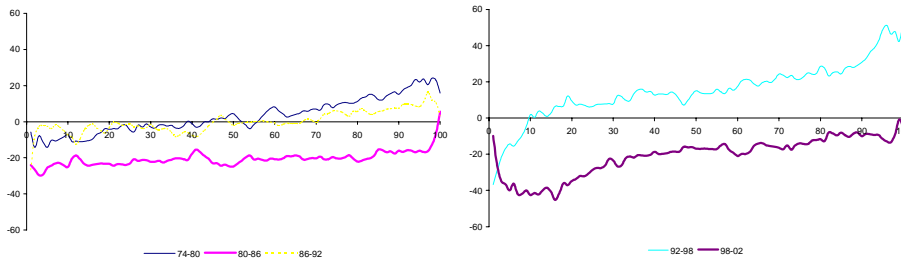
Source: Author's calculations based on the EPH and National Accounts.
Note: income from household surveys adjusted to match national disposable income from National Accounts

Table 2.10
Proportional change in real income by income quintiles
Equivalized household income distribution

	74-80	80-86	86-92	92-98	98-02
	(i)	(ii)	(iii)	(iv)	(v)
1	-9.3	-24.0	-6.0	-5.4	-37.4
2	-2.7	-21.8	-3.9	10.2	-25.2
3	1.4	-21.3	-1.1	13.5	-17.6
4	7.2	-20.1	2.0	22.1	-15.4
5	17.6	-15.5	8.0	35.5	-9.1

Source: Author's calculations based on the EPH and National Accounts.
Note: income from household surveys adjusted to match national disposable income from National Accounts

Figure 2.7
Aggregate welfare
Four abbreviated welfare functions
1980 =100
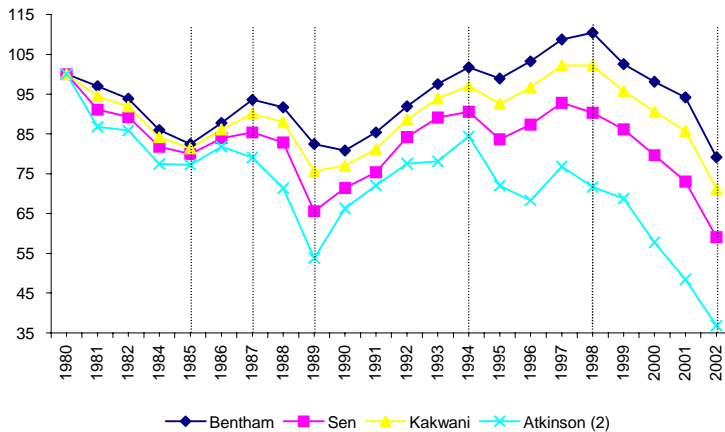
Source: Author's calculations based on the EPH.
Note: see Lambert (1993) for details on the aggregate welfare functions. Atk(e) refers to the function
proposed by Atkinson (1970): a CES function with parameter equal to e.
Income from household surveys adjusted to match national disposable income from National Accounts

Table 2.11
Bipolarization
Esteban, Gradín and Ray, and Wolfson indices

		Equivalized income		Household per capita income	
		EGR	Wolfson	EGR	Wolfson
		(i)	(ii)	(iii)	(iv)
GBA					
	1974	0.092	0.266	0.104	0.301
	1980	0.118	0.335	0.122	0.344
	1986	0.126	0.347	0.130	0.375
	1992	0.140	0.374	0.148	0.409
	1998	0.163	0.456	0.172	0.503
	2002	0.184	0.484	0.190	0.530
Argentina					
	1992	0.140	0.400	0.149	0.427
	1994	0.142	0.407	0.151	0.425
	1996	0.147	0.419	0.158	0.454
	1998	0.154	0.441	0.163	0.464
	2000	0.158	0.459	0.169	0.493
	2002	0.167	0.483	0.177	0.521

Source: Author's calculations based on the EPH.

Table 2.12
Educational mobility index

		13-19	20-25
		(i)	(ii)
GBA			
	1974	0.904	0.808
	1980	0.888	0.845
	1986	0.900	0.870
	1992	0.902	0.793
	1998	0.867	0.778
	2002	0.872	0.847
Argentina			
	1992	0.918	0.841
	1994	0.912	0.835
	1996	0.923	0.820
	1998	0.874	0.812
	2000	0.892	0.807
	2002	0.918	0.832

Source: Author's calculations based on the EPH.

Figure 3.1
Wage-education profile
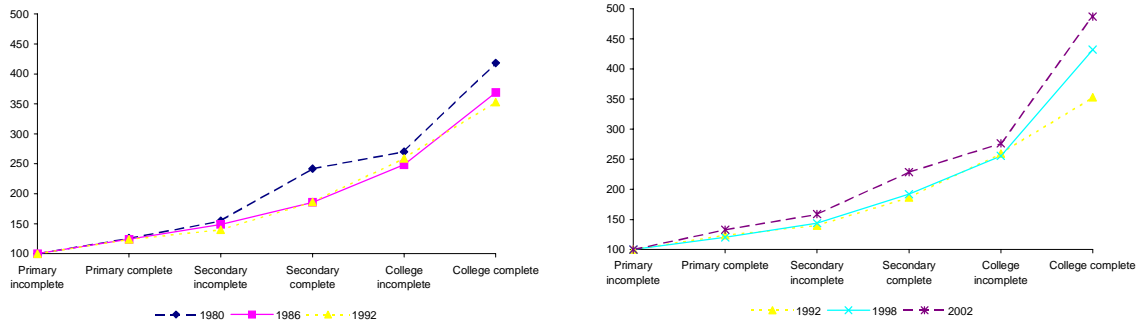
Source: Author's calculations based on the EPH.
Note: Predicted wages for male household heads aged 40 married with two children. Primary incomplete=100 in each year

Figure 3.2
Standard deviation of the error term in the hourly wage equation
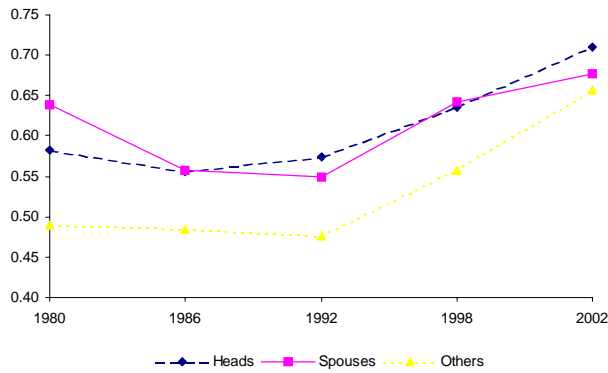
Source: Author's calculations based on the EPH.

Figure 3.3
Worked hours-education profile
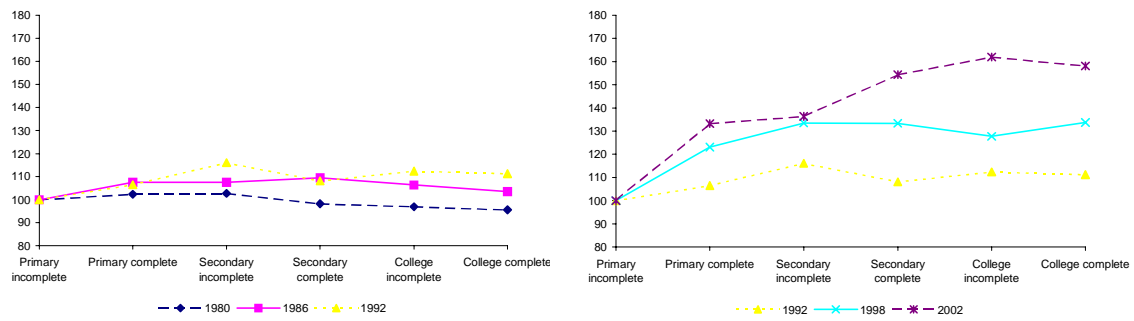
Source: Author's calculations based on the EPH.
Note: Predicted hours for male household heads aged 40 married with two children. Primary incomplete=100 in each year

Figure 3.4
Unemployment rate, labor force participation and employment rate
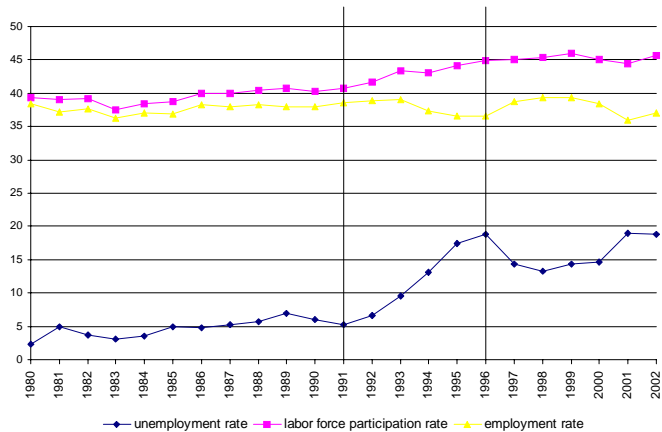
Source: Author's calculations based on the EPH.

Table 3.1
Microsimulations
Changes in the Gini coefficient

	Actual change (i)	Returns to education (ii)	Gender wage gap (iii)	Returns to experience (iv)	Unobservable factors (v)	Hours of work (vi)	Employment (vii)	Education (viii)
1980-1986								
Hourly wages	-1.8	-1.8	0.7	-2.6	-1.7			1.2
Earnings	0.3	-1.4	0.7	-2.9	-1.0	-0.1		1.3
Household income	2.9	-1.6	0.0	0.3	-0.8	0.7	0.0	0.7
1986-1992								
Hourly wages	-2.5	-3.2	-1.7	0.2	-0.6			-0.7
Earnings	-1.7	-1.0	-1.1	2.0	0.5	-0.3		-0.2
Household income	0.7	-0.9	0.1	-0.5	0.4	0.9	-0.1	0.0
1992-1998								
Hourly wages	5.9	3.7	-0.8	-0.3	2.6			0.4
Earnings	7.3	2.9	-0.4	-0.9	2.0	2.5		0.8
Household income	8.5	2.9	-0.1	0.8	1.7	1.8	0.2	0.6
1998-2002								
Hourly wages	3.5	0.7	0.4	-0.9	2.5			1.0
Earnings	4.9	0.5	0.3	0.6	1.8	1.5		0.9
Household income	6.2	0.9	0.0	-0.9	1.4	1.4	0.2	0.6

Source: Author's calculations based on the EPH.

Figure 4.1
Indices of reforms
International finance, trade and privatizations

International financial liberalization

Trade reform

Privatizations
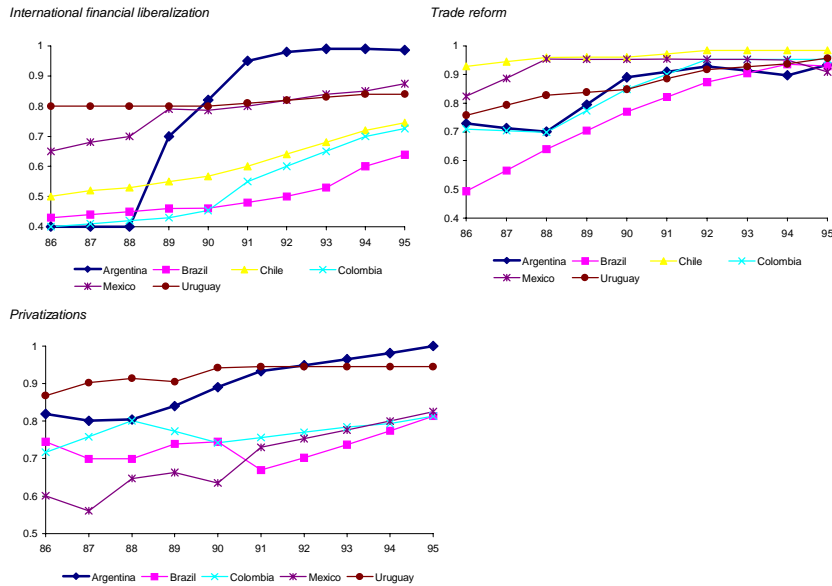
Source: own calculations based on Morley et al. (1999).

Table 4.1
Employment (in hours of work) by sector
Greater Buenos Aires, 1974-2002

All workers

Sector of activity	Share in total employment						Change in share of total employment					
	1974	1980	1986	1992	1998	2002	74-80	80-86	86-92	92-98	98-02	74-02
Low-tech manufacturing industries	14.8	10.9	10.6	9.0	6.4	6.1	-3.8	-0.3	-1.6	-2.6	-0.3	-8.6
Medium and high-tech manufacturing	23.8	20.3	18.1	14.7	12.3	9.0	-3.5	-2.2	-3.4	-2.3	-3.3	-14.7
Construction	6.7	9.4	6.1	4.5	5.4	4.9	2.7	-3.3	-1.6	0.9	-0.6	-1.8
Wholesale and retail	16.5	17.3	19.1	18.9	19.4	17.7	0.8	1.8	-0.2	0.5	-1.6	1.2
Communications, transportation and utilities	9.1	8.1	7.1	8.7	10.5	10.0	-0.9	-1.1	1.7	1.8	-0.6	0.9
Professional and business services	6.4	8.9	11.0	10.7	13.7	15.0	2.6	2.1	-0.3	3.1	1.2	8.6
Public administration, education and welfare	14.9	16.4	15.7	24.8	25.3	31.1	1.6	-0.7	9.0	0.6	5.8	16.3
Other unskilled services	8.0	8.6	12.4	8.7	6.9	6.2	0.5	3.8	-3.7	-1.9	-0.7	-1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0						

Less than high school

Sector of activity	Share in total employment						Change in share of total employment					
	1974	1980	1986	1992	1998	2002	74-80	80-86	86-92	92-98	98-02	74-02
Low-tech manufacturing industries	17.3	12.5	13.9	13.3	10.1	9.0	-4.8	1.4	-0.6	-3.2	-1.0	-8.3
Medium and high-tech manufacturing	25.3	21.1	19.0	17.5	15.4	9.6	-4.2	-2.0	-1.5	-2.1	-5.8	-15.7
Construction	7.8	12.0	8.7	6.9	10.4	8.8	4.2	-3.3	-1.8	3.4	-1.6	1.0
Wholesale and retail	18.0	19.7	20.7	20.4	21.6	23.4	1.7	1.0	-0.3	1.2	1.8	5.4
Communications, transportation and utilities	10.7	10.2	7.9	10.5	13.8	12.8	-0.5	-2.3	2.6	3.3	-1.0	2.1
Professional and business services	2.4	2.6	3.2	3.6	4.4	4.2	0.2	0.6	0.4	0.8	-0.2	1.8
Public administration, education and welfare	8.4	9.6	8.9	12.6	11.8	19.8	1.2	-0.7	3.7	-0.7	8.0	11.4
Other unskilled services	10.2	12.3	17.6	15.1	12.5	12.4	2.1	5.3	-2.5	-2.7	-0.1	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0						

High school graduates

Sector of activity	Share in total employment						Change in share of total employment					
	1974	1980	1986	1992	1998	2002	74-80	80-86	86-92	92-98	98-02	74-02
Low-tech manufacturing industries	10.7	9.4	8.1	7.4	5.9	7.0	-1.3	-1.3	-0.7	-1.5	1.1	-3.7
Medium and high-tech manufacturing	25.1	22.0	18.7	14.3	13.2	11.0	-3.1	-3.3	-4.4	-1.1	-2.2	-14.1
Construction	3.8	4.7	2.5	3.2	3.6	3.9	0.9	-2.2	0.7	0.4	0.4	0.2
Wholesale and retail	17.2	17.8	21.6	23.6	25.6	22.3	0.6	3.8	2.0	2.0	-3.3	5.1
Communications, transportation and utilities	6.1	5.4	7.3	8.9	12.0	11.3	-0.7	1.9	1.5	3.2	-0.8	5.1
Professional and business services	14.0	15.7	17.7	15.1	15.7	15.9	1.7	2.0	-2.6	0.6	0.1	1.9
Public administration, education and welfare	18.4	22.2	17.0	22.7	18.9	23.8	3.8	-5.2	5.7	-3.8	4.9	5.4
Other unskilled services	4.6	2.7	7.1	4.9	5.0	4.8	-1.9	4.3	-2.2	0.2	-0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0						

College graduates

Sector of activity	Share in total employment						Change in share of total employment					
	1974	1980	1986	1992	1998	2002	74-80	80-86	86-92	92-98	98-02	74-02
Low-tech manufacturing industries	7.3	5.5	3.2	2.5	2.0	2.3	-1.7	-2.3	-0.8	-0.4	0.3	-5.0
Medium and high-tech manufacturing	11.0	12.2	13.2	9.2	7.2	6.4	1.2	0.9	-4.0	-2.0	-0.8	-4.7
Construction	5.7	5.6	3.4	1.3	0.9	1.9	-0.1	-2.2	-2.1	-0.4	1.0	-3.8
Wholesale and retail	4.9	3.3	8.0	8.5	9.2	7.1	-1.6	4.6	0.5	0.7	-2.0	2.2
Communications, transportation and utilities	4.9	2.7	3.4	4.8	4.3	5.7	-2.2	0.7	1.3	-0.4	1.3	0.8
Professional and business services	15.3	28.6	26.5	19.0	24.1	24.9	13.3	-2.1	-7.5	5.1	0.8	9.6
Public administration, education and welfare	49.5	41.0	38.6	53.9	50.8	50.4	-8.6	-2.3	15.3	-3.1	-0.4	0.9
Other unskilled services	1.3	1.0	3.7	0.9	1.4	1.3	-0.4	2.7	-2.7	0.5	-0.2	-0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0						

Source: Author's calculations based on the EPH.

Figure 4.2
Share in employment (hours of work)
All workers

- ◆ Low tech manufacturing
- ■ Medium and high tech manufacturing
- ● Professional and business services
- ✛ Public administration, education and welfare
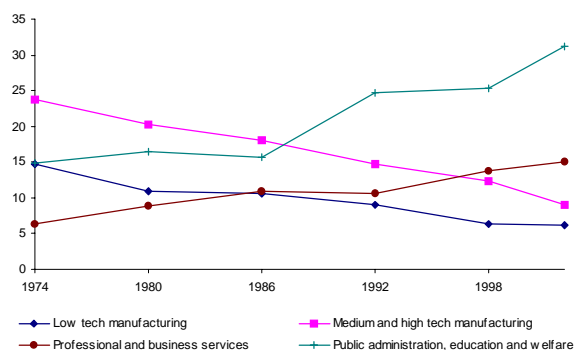
Source: Author's calculations based on the EPH.

Table 4.2
Share of each educational group in aggregate labor
Greater Buenos Aires, 1974-2002

Educational group	Share in aggregate labor input						Change in share of aggregate labor						
	1974	1980	1986	1992	1998	2002	74-80	80-86	86-92	92-98	98-02	80-98	74-02
Less than high school	67.1	63.3	55.5	46.0	38.7	32.7	-3.8	-7.8	-9.4	-7.4	-5.9	-24.6	-34.3
High school graduates	22.6	25.0	29.7	32.4	32.6	34.9	2.4	4.7	2.7	0.3	2.2	7.6	12.2
College graduates	10.3	11.7	14.9	21.6	28.7	32.4	1.5	3.1	6.7	7.1	3.7	17.0	22.1
Total	100.0	100.0	100.0	100.0	100.0	100.0							

Source: Author's calculations based on the EPH.

Table 4.3
Share of each educational group in employment by sector
Greater Buenos Aires, 1974-2002

Sector of activity	Less than high school						High school graduates						College graduates					
	1974	1980	1986	1992	1998	2002	1974	1980	1986	1992	1998	2002	1974	1980	1986	1992	1998	2002
Low tech manufacturing	78.5	72.6	72.8	67.7	61.0	48.2	16.4	21.5	22.6	26.5	30.0	39.7	5.1	6.0	4.6	5.9	9.0	12.1
Basic and high tech manufacturing	71.3	65.8	58.4	55.0	48.3	34.7	23.9	27.1	30.7	31.5	35.0	42.4	4.8	7.1	10.8	13.5	16.7	22.8
Construction	78.4	80.5	79.4	70.9	73.9	59.1	12.9	12.5	12.1	22.7	21.5	28.3	8.8	7.0	8.4	6.4	4.7	12.7
Wholesale and retail trade	73.3	72.1	60.2	49.8	43.2	43.2	23.6	25.7	33.6	40.5	43.1	43.8	3.1	2.3	6.2	9.7	13.6	13.0
Communications, transport and utilities	79.1	79.4	62.1	55.4	50.9	42.1	15.4	16.7	30.7	32.8	37.3	39.5	5.5	3.9	7.2	11.7	11.8	18.4
Professional and business services	25.5	18.3	16.3	15.6	12.3	9.2	49.8	44.0	47.8	45.9	37.4	36.9	24.8	37.7	35.9	38.5	50.4	54.0
Public administration, education and welfare	37.7	36.9	31.3	23.4	18.0	20.8	28.0	33.8	32.1	29.7	24.4	26.7	34.2	29.3	36.5	47.0	57.6	52.5
Other services	85.2	90.7	78.7	79.7	70.2	66.0	13.1	8.0	16.9	18.0	23.9	27.3	1.7	1.3	4.4	2.3	6.0	6.7

Changes

Sector of activity	Less than high school						High school graduates						College graduates					
	74-80	80-86	86-92	92-98	98-02	74-02	74-80	80-86	86-92	92-98	98-02	74-02	74-80	80-86	86-92	92-98	98-02	74-02
Low tech manufacturing	-6.0	0.2	-5.1	-6.7	-12.7	-30.3	5.1	1.2	3.8	3.5	9.7	23.3	0.9	-1.4	1.3	3.2	3.0	7.0
Basic and high tech manufacturing	-5.5	-7.3	-3.5	-6.7	-13.6	-36.5	3.2	3.6	0.8	3.4	7.5	18.5	2.3	3.8	2.7	3.2	6.1	18.0
Construction	2.1	-1.0	-8.5	3.0	-14.8	-19.3	-0.4	-0.4	10.6	-1.3	6.8	15.4	-1.8	1.4	-2.1	-1.7	8.0	3.9
Wholesale and retail trade	-1.3	-11.9	-10.3	-6.6	-0.1	-30.1	2.0	7.9	6.9	2.7	0.7	20.2	-0.8	4.0	3.4	4.0	-0.6	10.0
Communications, transport and utilities	0.3	-17.3	-6.7	-4.6	-8.8	-37.0	1.3	14.0	2.2	4.5	2.2	24.1	-1.6	3.3	4.5	0.1	6.6	12.9
Professional and business services	-7.1	-2.0	-0.7	-3.3	-3.1	-16.3	-5.7	3.8	-1.9	-8.6	-0.5	-12.9	12.9	-1.8	2.6	11.9	3.6	29.2
Public administration, education and welfare	-0.8	-5.6	-8.0	-5.3	2.8	-16.9	5.8	-1.7	-2.4	-5.3	2.3	-1.4	-5.0	7.3	10.4	10.6	-5.1	18.3
Other services	5.5	-12.0	1.0	-9.5	-4.2	-19.2	-5.1	8.9	1.1	5.9	3.4	14.2	-0.4	3.1	-2.1	3.7	0.7	5.0

Source: Author's calculations based on the EPH.

Table 4.4
Aggregate decompositions
Changes in share of labor
Greater Buenos Aires, 1974-2002

Between

	74-80	80-86	86-92	92-98	98-02	80-98	74-02
Less than high school	-1.6	-0.5	-3.8	-1.9	-2.1	-6.1	-8.4
High school graduates	0.5	0.3	0.7	0.6	-0.7	1.3	0.8
College graduates	1.1	0.2	3.1	1.4	2.8	4.8	7.6

Within

	74-80	80-86	86-92	92-98	98-02	80-98	74-02
Less than high school	-2.2	-7.3	-5.6	-5.5	-3.8	-18.5	-25.9
High school graduates	1.8	4.3	2.0	-0.3	2.9	6.3	11.4
College graduates	0.4	3.0	3.6	5.8	0.9	12.2	14.5

Overall

	74-80	80-86	86-92	92-98	98-02	80-98	74-02
Less than high school	-3.8	-7.8	-9.4	-7.4	-5.9	-24.6	-34.3
High school graduates	2.4	4.7	2.7	0.3	2.2	7.6	12.2
College graduates	1.5	3.1	6.7	7.1	3.7	17.0	22.1

Source: Author's calculations based on the EPH.

Figure 4.3
Aggregate decompositions
Changes in share of labor
Greater Buenos Aires, 1974-2002
Between and within effects

Between
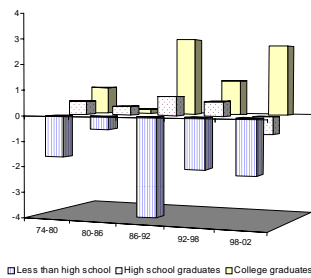
Within
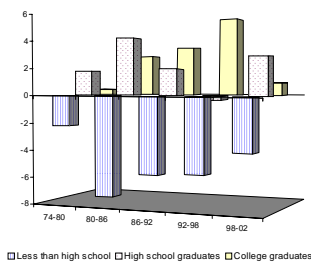
Table 4.5
Coefficients of the capital investment and import penetration variables
interacting with educational dummies in a log hourly wage equation
By lag in the capital investment variable

	Lags		
	0	1	3
Capital investment			
Primary school	-0.011**	-0.009**	-0.013**
High school	-0.003	-0.001	-0.005
College	0.029**	0.020**	0.029**
Import penetration			
Primary school	0.045	0.043	0.052*
High school	0.046	0.044	0.052*
College	0.085**	0.076**	0.087**

Source: Acosta and Gasparini (2003)
Note: * significant at 10%, ** significant at 5%.

Figure 4.4
Conditional wage gap
as a function of sectoral capital investment/value added
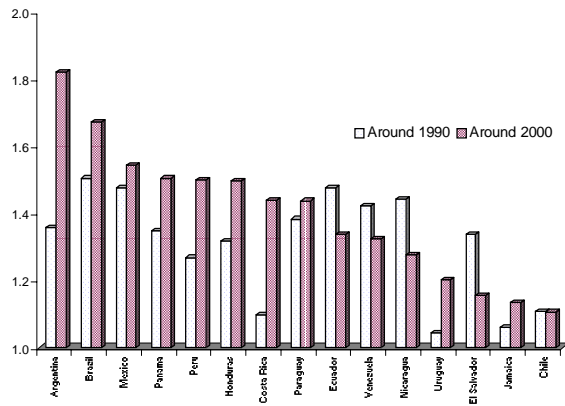*and import penetration/value added*
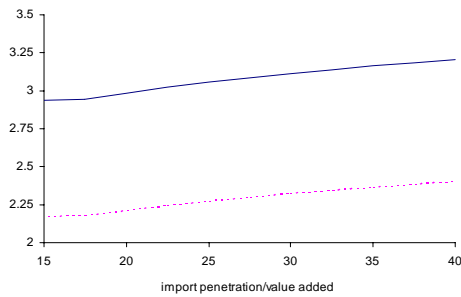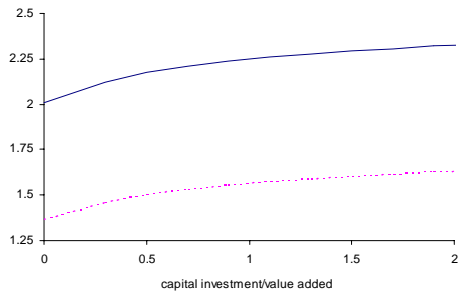
Figure 4.5
Share of college educated individuals in adult population
LAC countries, around 2000
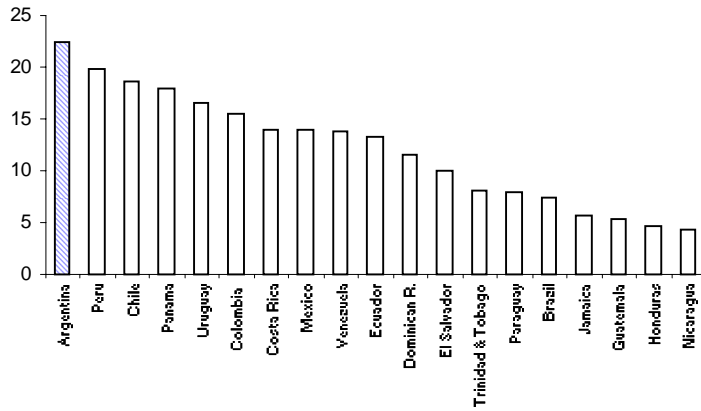
Source: own calculations based on Gasparini (2003).

Figure 4.6

Ratio between bottom quintile and top quintile
in the number of children under 12 per household

Source: Gasparini (2003).

Table 5.1
Redistributive impact of the fiscal policy
Argentina, 1980-2002

	Concentration index			Kakwani progressivity index				Redistributive	
				SPE	Taxes	Total		impact	Gini-post
	SPE	Taxes	Gini-pre	(iii)-(i)	(ii)-(iii)	(iv)+(v)	SPE/Yd	(vi)*(vii)	(iii)-(viii)
	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)
1980	-0.034	0.350	0.391	0.424	-0.041	0.383	0.407	0.156	0.235
1981	-0.033	0.338	0.427	0.460	-0.090	0.370	0.433	0.160	0.267
1982	-0.034	0.340	0.420	0.454	-0.081	0.373	0.407	0.152	0.268
1983	-0.045	0.344	0.430	0.475	-0.086	0.389	0.477	0.186	0.244
1984	-0.053	0.343	0.439	0.492	-0.096	0.396	0.517	0.205	0.234
1985	-0.036	0.353	0.409	0.445	-0.056	0.389	0.401	0.156	0.253
1986	-0.042	0.352	0.417	0.459	-0.065	0.394	0.489	0.193	0.224
1987	-0.035	0.354	0.444	0.479	-0.090	0.389	0.551	0.214	0.230
1988	-0.036	0.358	0.449	0.485	-0.091	0.394	0.486	0.191	0.258
1989	-0.023	0.369	0.515	0.538	-0.146	0.392	0.436	0.171	0.344
1990	-0.015	0.352	0.461	0.477	-0.109	0.367	0.443	0.163	0.299
1991	-0.019	0.344	0.461	0.480	-0.117	0.363	0.382	0.139	0.323
1992	-0.021	0.340	0.441	0.462	-0.102	0.360	0.372	0.134	0.307
1993	-0.029	0.344	0.443	0.472	-0.099	0.373	0.362	0.135	0.308
1994	-0.027	0.348	0.457	0.484	-0.109	0.375	0.372	0.139	0.317
1995	-0.023	0.351	0.484	0.507	-0.133	0.374	0.376	0.141	0.344
1996	-0.022	0.353	0.484	0.506	-0.131	0.375	0.357	0.134	0.350
1997	-0.032	0.354	0.480	0.511	-0.126	0.385	0.348	0.134	0.346
1998	-0.033	0.359	0.501	0.534	-0.142	0.392	0.340	0.133	0.368
1999	-0.039	0.362	0.488	0.527	-0.126	0.401	0.367	0.147	0.341
2000	-0.037	0.368	0.505	0.542	-0.137	0.405	0.357	0.145	0.360
2001	-0.037	0.373	0.527	0.564	-0.154	0.410	0.382	0.157	0.370
2002	-0.037	0.371	0.538	0.575	-0.167	0.408	0.351	0.143	0.395

Source: own estimates.
Note: SPE=social public expenditures, Yd=national disposable income.

Figure 5.1
Concentration index and progressivity index
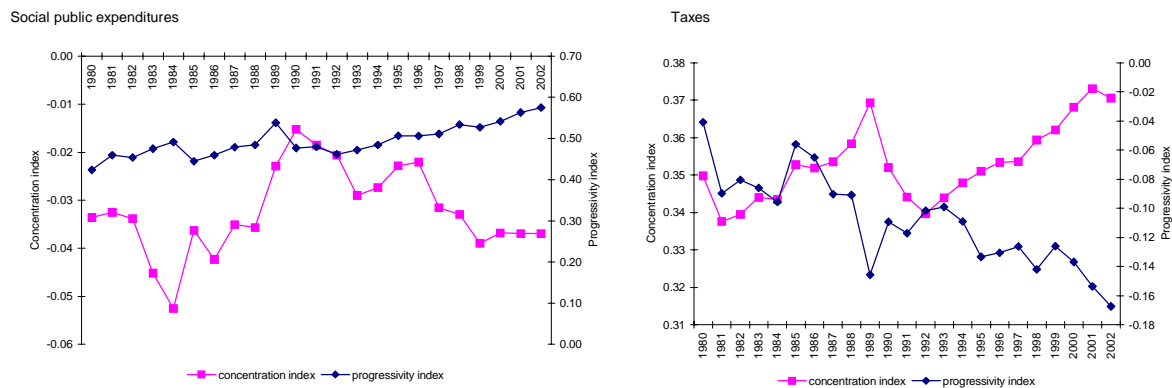*Social public expenditures and taxes*
Argentina, 1980-2002

Social public expenditures

Taxes

Figure 5.2
Budget size, progressivity and
distributional impact of fiscal policy
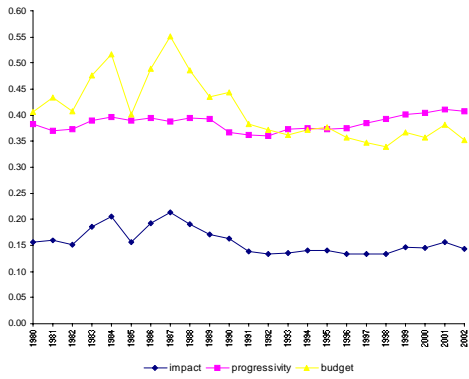*Argentina, 1980/2002*

Figure 5.3
Gini coefficients for the distribution of household per capita income
Before and after fiscal policy
Argentina, 1980-2002

Figure 5.4
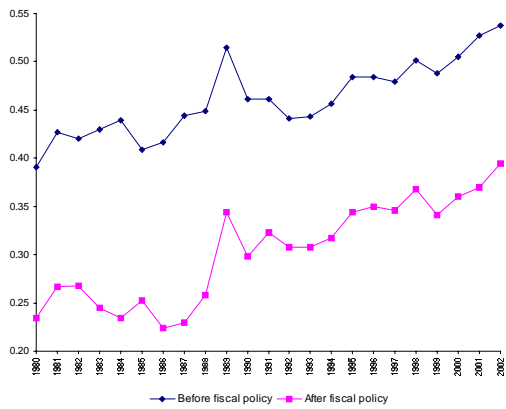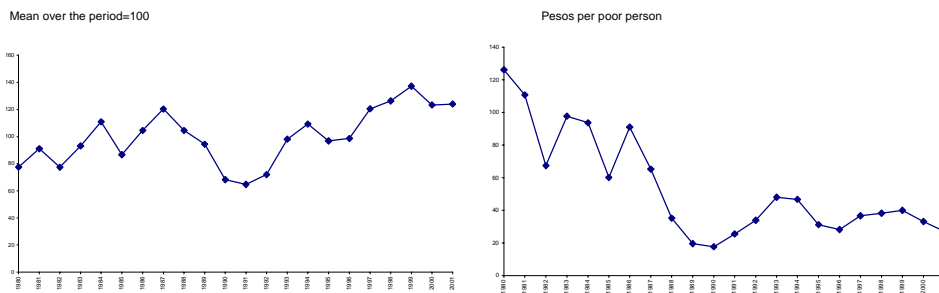*Public expenditures in welfare programs*

Source: own estimates based on information from DGSC.