



Universidad de la República
Facultad de Ciencias Sociales
DEPARTAMENTO DE ECONOMIA

Documentos de trabajo

**Poverty status in Montevideo (Uruguay) in the
1980s**

Marisa Bucheli y Máximo Rossi

Documento No. 05/93
Diciembre, 1993

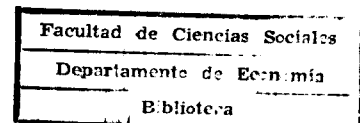
**Poverty status in Montevideo
(Uruguay) in the 1980s**

**Marisa Bucheli
Máximo Rossi**

Documento No. 5/93

Junio, 1993

Support for this research was provided by SAREC (Sweden) under the research project "Industrial structure, efficiency, competitiveness and income generation in the integration process of the Southern Cone (MERCOSUR)".



ABSTRACT

The paper examines the poverty status in Montevideo and the trends in poverty during the 1980s, placing special emphasis on the effects of macroeconomic, external and institutional environment. A relative poverty line was estimated and three poverty indexes were applied. Characteristics as age and education of the head of the household were found as linked with structural poverty status. On the other hand, the changes in poverty status during the decade were linked with the different impact of macroeconomic policies, external shocks and institutional changes on the different occupations. The Income Surveys conducted by the "Instituto Nacional de Estadística" serve as a data source for the analysis.

I. Introduction

Uruguay is a small country of 3 million inhabitants. The rate of population growth is low for a Latin American country (0.7%) because of a low birth rate (18.4%) combined with a mortality rate of 9.4% and a sustained emigration process lasting from 25 years.

In the Latin American context, Uruguay presents a good physical infrastructure and extended public health and educational systems. Social indicators, such as GDP per capita and income distribution indexes, are among the best of the continent. But a low economic performance since the second half of the 1950s until the end of the 1960s caused important distribution conflicts, which were partially repressed by a military government in the 70s with the elimination of labor unions and political parties. Thus, an increasing GDP from 1974 to 1980 was accompanied by decreasing real wages suggesting a concentration of income in the period.

During the 1980s, Uruguay underwent several different macroeconomic policies and external shocks; given its dimensions, it is greatly influenced by the economic fluctuations of its neighbours (Argentina and Brazil), which were not negligible, especially in the 80s. After a boom at the end of the 1970s, the country experienced a recession and crisis in 1981-84, a recovery in 1985-87 and economic stagnation in the last years of the decade. Moreover, an important institutional change took place too: in 1985 a democratic government returned, following twelve years of dictatorship. Different social organizations which condemned the income concentration experienced in the 1970s, claimed for a redistribution. The unions - reorganized in the democracy context but which in fact had shown a high mobilization since 1984 - led the welfare demands.

These changes suggest a possible impact in income distribution and the level of poverty. Earlier writings (Melgar, 1988) found a stable income distribution during the first half of the decade when analyzing the Household Surveys, but a concentration of income in the crisis when using National Accounts information. Respect to poverty, the fluctuations of national income suggest the existence of changes in its absolute level.

This paper focuses both on the structural poverty status and its evolution in the 80s using the information provided by the Statistics Office¹, that collects and processes the Household Surveys. A relative measure of poverty line, set in 50% of the average income, was used. The possibility of an underestimation of the income of the richest as suggested by Melgar means that the analyzed population might perceive incomes lower than a poverty line set below the 50% of the average income.

¹ Instituto Nacional de Estadística, Uruguay

II. Economic performance in the 1980s

In the 1970s, Uruguay undertook important reforms in the deregulation of financial and commodity markets, which contributed to a high GDP growth in the second half of the decade but was also accompanied by a sharp decline in real wages. The economic reforms ended with a severe crisis in 1982-84. This was connected with the implementation of a stabilization program adopted in October 1978, that focused on a scheduled and preannounced exchange rate devaluation.

In early 1979 the real exchange rate appreciated because of the increase of demand arriving from Argentina, added to inflationary internal pressures (i.e., the impact of the deregulation of key internal prices in August 1978 and March 1979). At the same time, the government implemented a medium-term reform consisting of the reduction of import taxes and surcharges; reacting to the inflationary surge, the government made additional cuts and eliminated financial subsidies to exports. Thus, until 1981, big deficits in the trade balance were financed by Argentinian capital inflows and a rising stock of external debt which by the time sustained the appreciated real exchange rate.

At the end of 1981, the first symptoms of a recession appeared after the occurrence of two booms induced by negative interest rates, one in agricultural land and the other in real estate.

In 1982, a major devaluation in Argentina attracted Uruguayan demand to that country and shifted Argentinian away from Uruguay. With high capital mobility and rigidity of prices, the country continued to lose competitiveness and capital flowed out, supporting even more the expectations of a major devaluation in the near future. In an effort to sustain the exchange rate, the level of foreign indebtedness was increased in order to avoid the loss of international reserves.

Table 1

Macroeconomic indicators

	GDP growth	Unemployment rate	Budget deficit/GDP *	Inflation	Real wages growth
	(1)	(2)	(3)	(4)	(5)
1979	6.2	8.4	-0.3	66.8	-8.6
1980	6.0	7.3	-0.1	63.5	0.6
1981	1.9	6.7	0.1	34.0	7.1
1982	-9.4	11.9	9.0	19.0	-0.6
1983	-5.9	15.5	4.2	49.2	-20.7
1984	-1.1	14.0	9.9	55.3	-9.2
1985	1.5	13.1	6.4	72.2	15.7
1986	8.9	10.7	5.1	76.4	5.8
1987	7.9	9.3	4.5	63.6	4.7
1988	0.0	9.1	5.3	62.2	1.2
1989	1.3	8.5	6.9	80.4	-0.1
1990	0.9	9.2	3.5	112.5	-8.3

Notes: Cols. (1), (2), (4), (5): % per year. Averly yearly values.
Col. (3): % of GDP.
* Minus sign indicates a surplus.

Source: Banco Central del Uruguay.

In the context of Latin American debt crisis and the reduction of the foreign bank loans, in November 1982, the government abandoned the stabilization program, letting the dollar float.

The adjustment of the real exchange rate allowed an increase of exports which leapt from 14% of the GDP in 1982 to around 27% in 1983-1984, although the terms of trade decreased in those years. In spite of the recovery of exports sector, the country faced a deep crisis until 1984: comparing to 1981, the national income fell 22%, real wages 32%, investment 47% and the unemployment rate reached 15.5% in its peak (1983).

In 1985, the new Administration had to deal with a major foreign debt, a large domestic debt, a fiscal disequilibrium and social pressures to raise wages and pensions which had been repressed from the 1970s (real wages had decreased 56% from 1970 to 1984).

The reorganization of unions made possible to implement a wage policy based on negotiations. The government promoted synchronized quarterly wage adjustments in the private sector; public adjustments were made with a lag of one month. Quarterly increases were equivalent to the inflation rate of the last quarter plus a percentage calculated at gradually raising the level of real wage.

The evolution of wages and the exchange rate affected the exports sector which lobbied to contract the wage indexation: the exchange rate policy took in account the past and the government's expected rate of inflation, the latter of which systematically underestimated the rates actually realized. Inasmuch as a wage adjustment had to be made in February 1986 and the unions did not negotiate², the wage adjustment was decided by the government. Taking account of the criticism to the disparities of the exchange rate and wage policies, the increase was calculated as a mean of past

² It is rare that unions negotiate in summer because of the large number of people on vacations.

Table 2
External indicators

	GDP/ cap.	Ext. Debt	Net Pay. of Ext. Interest	Terms of trade growth	Real exchange rate growth
	(1)	(2)	(3)	(4)	(5)
1979	2,334	1,682	57.8	1.9	-14.2
1980	3,477	2,156	100.4	-3.5	-19.7
1981	3,863	3,112	73.8	2.9	-1.2
1982	3,131	4,238	196.9	0.1	13.6
1983	1,650	4,572	287.8	-7.8	69.1
1984	1,622	4,664	361.6	-0.5	6.2
1985	1,572	4,900	350.9	-4.9	6.2
1986	1,944	5,239	278.0	18.4	-16.6
1987	2,422	5,888	280.9	10.3	-8.9
1988	2,486	6,331	392.3	1.1	1.1
1989	2,598	6,994	494.9	-1.9	-2.4
1990	2,677	7,383	527.7	-8.1	-4.3

Notes: cols. (1), (2), (3): US\$
Cols. (4), (5): % per year. Average yearly values.

Source: Banco Central del Uruguay.

and expected inflation rates. Although after February wages adjustments were negotiated by workers and enterprises, the new criterion was adopted: from that moment on, the government declared quarterly the expected rate inflation to be used.

At the same time, in order to avoid the quarterly conflicts caused by the negotiations, from 1986 the government promoted sectorial medium-term contracts and gradually, workers and enterprises began to accept the new framework. The different signed contracts had similar characteristics: quarterly wage adjustments based on past and expected inflation rates, annual upward adjustments of the real wage when it declined and, in several cases, an increase based on productivity improvements.

Thus, in 1985-87, the wage policy allowed real wages to increase (28% from 1984 to 1987) in the framework of a positive external environment: the reduction of the international interest rates, the decline of oil price and an increase of Argentinian and Brazilian demand. The country experienced a phase of expansion (an annual increase of 6% of the GDP and a decrease of unemployment) sustained by the increase of exports and internal demand.

At the end of 1987, the regional environment changed and the rythm of devaluation accelerated: the government attempted to a fiscal adjustment and a restrictive credit policy. In 1988 it reacted changing the rules again for the wage adjustment in the private sector - which did not contemplate those who were covered by a medium-term contract- but maintaining the policy for public workers. The increment was calculated at 90% of past inflation rate and even contracts signed in 1988 included this new rule. Stagnation characterized the end of the Administration, which relaxed the fiscal adjustment in the electoral year (1989).

In 1990, the new Administration committed itself to a medium-term reform of the structure of the State seeking for a decrease in its dimension and a great reduction of inflation. The stabilization program consisted of a fiscal adjustment and a disindexation of wages.

In opposition to the aim of fiscal equilibrium, the Administration had inherited a large budget deficit and new pension legislation³ dated at the end of 1989, that led to expectations of an increase of their real amount. Moreover, the social security system has had a large deficit lasting for the last 20 years.

In order to accomplish its target, the public expenses were reduced and the fiscal pressure leapt, incipally through an increase of contributions to the security system and taxes on consumption. The public sector wages became an important tool: its decrease would contribute to reduce fiscal budget, to promote the lay-off of the sector and to decelerate the

³ Before 1989, pensions adjustments were annual and linked to the wage index; since inflation rate used to be high, the government was allowed to make advance payments. The reform established that increases had to take place the same month as public sector wages and the rise had to be equivalent to the variation of the wage index between the adjustment months.

increase of pensions.

In order to disindex, in June the government decided upon a general increase of wages for private and public sector of 15%, percentage lower than accumulated inflation until that month but according to the commitment with the IFM (a rate inflation target of 50% for the year). But this target was accomplished in the middle of the year: prices increased 22% only in June-September. A series of deep conflicts led to a new negotiation in September in which the government, enterprises and workers committed themselves to raise the real wage of the private sector. They agreed on a formula that allowed the real wage not to decrease with increasing or declining inflation.

Thus, the first year of the new Administration was a conflictive one. In spite of the small improvement of GDP, the unemployment rate increased.

III. The data and the poverty line

The geographical distribution of population is concentrated in Montevideo (45% of inhabitants). Urban population is 83% but only two other cities have more than 50.000 inhabitants, the biggest one with 72.000. Given the importance of Montevideo and its disparities with the rest of the urban country (i.e. a more developed unionized market labor, a higher weight of industrial production, a more educated population) it is not possible to aggregate information of all the urban population -there is not information about the rural country except in the population censuses-.

The urban country except Montevideo presents important differences in economic characteristics, such as main production, consumption basket, prices, wages. Therefore, its aggregate information obscures the mentioned differences; disparities in distribution income indexes in particular justify a previous attempt of a classification in zones (Erro et al, 1991).

Thus, the estimations have been made only for Montevideo. The information was collected from the Household Surveys of the decade. They are one-shot surveys which inquire during one month about individual characteristics (sex, age, education, occupation, etc.) and income received the preceeding month.

Each semester is subject to seasonal variations. The majority of people has holidays during the first one and there is an important populational movement from Montevideo to other cities. Therefore, the second term information has been chosen for the analysis.

The Surveys inquire about total personal income (in cash and in kind) received from all sources by each member of the household after deductions (social security payments). Usually,

the incomes of all recipients are reported by only one respondent in the household who has to show a receipt only when information refers to wages and salaries. Therefore, sources of income other than formal labor market might present problems of measurement.

Earlier writings (Melgar, 1988) have compared Household Survey estimations of income with National Accounts one, concluding that the former under-estimate income of the richest. Melgar found that the Survey and National Accounts present a similar ratio wages / pensions but the other sources of income are lower in the Surveys.

In addition to Melgar's findings, the evolution of national income differs when using the different sources of information, suggesting that the biases - in the Household Survey or/and National Accounts- are not systematically reproduced over the years. The comparison does not allow to learn the most reliability of the two sources in measuring income. Anyway, National Accounts are as far from being accurate as Household Surveys, as revealed by the periodic revisions of its estimates, and do not allow to study personal income distribution.

Thus, Household Survey information of all sources of income of each each member of the household was added assigning a weight of unity to the head of household, 0.7 to each one of the other adults and 0.5 to each child.

Information of all individuals of the sample was taken in account except the one of domestic household help who live with a family without being a member, because irrespective of their personal income, they share food, housing and possibly other amenities with the household for which they work.

As information of six months has been added, income needs to be deflated. The election of the deflator is a subject of debate: all present different disadvantages.

In high inflation periods, each income has a different period of adjustment. The best would be to deflate each income by the index closest to its evolution. For employees, the wage index could be used. But for other sources of income it is difficult to choose an appropriate deflator. The election of the consumer price index is the most common one and it has been used in the estimations.

The poverty line used is a relative one. An absolute poverty line requires use of the definition of a consumption basket. In earlier writings (CEPAL, 1989) a basket proposed by CEPAL for all Latin America has been used. Because of the peculiarities of Uruguay respect to the rest of the continent it may not be advisable to work with that one, however. Besides, high inflation and its consequent impact on relative prices lead to a high rate of substitution of goods: a definition of a basket for a decade is by no means a trivial problem. Moreover, variations of relative prices with Argentina and Brazil stimulate short term substitutions in goods, rapidly adjusted because of the historical ease of smuggling.

The poverty line was set at 50% of the mean of the equivalent income previously defined. If the richest income is under-estimated, the estimated number of poor would be lower than the actual one.

The dimension of poverty was established using the index proposed by Foster et al (1984):

$$P_a = \frac{1}{N} \sum_{i=1}^q \left(\frac{g_i}{z} \right)^a$$

where N is the size of the sample, q the number of poor individuals, Z the poverty line and $g_i = Z - Y_i$ is the poverty gap for individual i , his income being Y_i .

The measure P_0 is the headcount ratio index: it estimates the percentage of individuals whose equivalent income is below the poverty line. The index calculated with $a = 1$ ponderates the headcount ratio by the average of the gap of the poor. Thus the ratio P_1/P_0 is the average poverty gap among the poor. When $a = 2$, the index is sensitive to income distribution among the poor: the wider the poverty gap of individual i , the bigger its weight in the calculation of the index.

One of the advantages of this index is that it is additively decomposable. For each group j of size n_j , an index can be calculated:

$$P_{a_j} = \frac{1}{n_j} \sum_{i=1}^{q_j} \left(\frac{g_{ji}}{z} \right)^a$$

where g_{ji} is the poverty gap for individual i pertaining to the group j and q_j the number of poor in the group. Thus, P_a is equal to the sum of these measures for every class weighted by the population share n_j/N .

IV. The results

Although the important fluctuations of national income in the decade should have had an impact in the level of absolute poverty, income distribution and global poverty indexes did not present important changes (table 3). Anyway, the income distribution indexes reached the highest level in the decade in 1983 and the lowest one in 1986. Analogously, the growth period

presented the lowest poverty indexes.

In this context, a decomposition of the poverty indexes allowed us to study the profile of the poor. Some characteristics appear to be structurally linked to the level of income (section *a*).

Anyway, the stable global indexes hide different impacts over groups of external shocks and government's policy in the short term. The latter can be brought to light by disaggregating by occupation of the head of the household. Moreover, these decompositions suggest some gradual changes in poverty status during the decade (section *b*).

A. The poverty profile

The decomposition of the indexes according to different characteristics of the head of the household shows a high stability of the structure of the contributions to poverty. The last year of the decade was chosen to present the results in table 4.

Firstly, poverty indexes decrease with household chief education. This relationship is linked with the correlation between work income and years of schooling: earlier writings (Bucheli, 1992) found significant rates of return of education. Besides, the education of the head of the household is a good indicator of the education of the other members. Thus, the effect of the rates of return is enlarged when the incomes of all the members of the household are added.

In any event, the increase of schooling of the new cohorts has an impact in the educational structure of the head of the household and in the returns to education. The percentage of low educated has decreased along the decade as the time as the rates of return have declined. Thus, the contribution to poverty of the most educated is higher in 1990 than at the beginning of the decade.

Secondly, members of households whose head is a female show an index level higher than their percentage in population (27% versus 17%). Their low weight in explaining the overall level of poverty is due to their small participation in the population.

Table 3

Income distribution and poverty indexes (2nd term of the year)

	Gini	Theil	PO	P1	P2	Income Var. (%)
1981	38.9	27.2	26.3	8.0	3.6	
1982	38.7	27.0	25.5	8.1	3.8	-24.3
1983	39.2	27.8	26.1	8.4	3.8	-42.5
1984	37.7	26.0	24.3	7.6	3.4	-23.3
1985	37.9	26.2	24.1	8.0	3.8	-0.4
1986	36.2	23.1	22.4	6.6	2.9	21.3
1987	37.0	24.7	23.8	6.9	3.0	27.4
1988	37.7	26.3	23.4	6.8	2.8	0.8
1989	37.3	25.0	23.9	7.3	3.2	-8.2
1990	38.6	27.2	25.8	7.5	3.2	-20.3

Note: Last column: average equivalent income variation between the second term of each year.

Source: Based on Instituto Nacional de Estadística (INE, Uruguay) figures.

The known discrimination and segregation phenomenon against women in the labor market helps explain the low incomes of female labor force (Diez de Medina & Rossi, 1991). In addition, female heads of households present a higher percentage of the less educated than men (26% of women heads versus 20% of men heads have less than 5 years of schooling). On the other hand, as education mitigates discrimination and segregation against women, it is not surprising to find a higher P_2 - which is sensitive to the income distribution - for the female heads of households class.

In addition to the considerations already noted, the situation of members of households headed by a female is linked to the status situation of those women. Almost 50% of them are widow and 19% are single: the lack of a man in the house is also one source less of household income. On the other hand, 83% of male heads of households declared themselves to be married⁴: with a rate of activity for women of 58%, a great percentage of these households have at least two sources of income.

The disaggregation by sex and status helps explain the results obtained when decomposing by household composition. 42% of women heads live alone: people living alone presented a high index count ratio if compared to the percentage in population (15% versus 5%). On the other hand, almost all the households composed of one adult and at least one child (less than 14 years old) have for a head a woman: the index count ratio for this class is higher than the global population one (36% versus a participation of 1%).

Another important classification is the age: poverty is higher for individuals in households where the head is younger than 45 years old. Moreover, for all heads younger than 65 years old, poverty indexes decline with age although education is higher in each new cohort.

The high index count ratio relative to the percentage in the population for individuals belonging to households with a chief younger than 25 years old is not surprising in spite of their higher education: while work income is inversely correlated with age, its participation is positively correlated.

The contribution to poverty of households with elderly heads is not very important in the decade although 83% of these heads are retired⁵. Anyway, because of cultural reasons the impact of low real pensions can be mitigated by choosing to live in an extended family⁶: 20% of older than 65 years old and a similar percentage of retired are not heads nor a couple of the household where they live. It is previsible that heads older than 65 years old concentrate the

⁴ The interviewed household decides who is the head: where a man (except very young sons) lives in the house, the answer usually is "the man". Besides, he uses to earn the highest income in the house.

⁵ The legal age for retirement is 65 years old for men and 60 years old for women, except some special occupations. As the majority of heads are men, it seemed more relevant to aggregate those older than 65 years old.

⁶ It is common that a family is composed by three generations.

Table 4

Poverty indexes (1990)

	% in population	P0	P1	P2		% in population	P0	P1	P2
All Montevideo	100.0	25.8	7.5	3.2					
<u>Household composition</u>		25.8	7.5	3.2	<u>Age of the household head</u>				
1 adult	4.5	14.8	3.4	1.2	- 24	1.4	35.9	11.0	4.5
1 adult, 1+ child	1.1	36.2	11.3	4.5	25 - 34	14.8	35.6	10.9	4.7
2 adults	16.5	12.3	2.7	0.9	35 - 44	22.6	31.7	10.2	4.6
2 adults, 1 child	6.6	20.8	5.6	2.3	45 - 54	22.2	24.1	6.7	2.9
2 adults, 2 children	10.0	29.0	7.7	2.9	55 - 64	20.3	18.6	5.0	2.1
2 adults, 3+ children	5.8	51.1	20.2	10.4	65 -	18.7	19.8	4.8	1.8
3 adults	11.6	14.6	2.9	1.0					
3 adults, 1 child	5.9	30.1	6.7	2.4	<u>Years of schooling of the h. h.</u>				
3 adults, 2 children	4.0	34.2	10.1	4.2	0 - 5	19.9	37.5	12.6	6.0
3 adults, 3+ children	2.3	63.2	27.4	15.1	6 - 9	47.0	26.3	7.7	3.3
4 adults	8.9	13.1	2.7	0.8	10 - 12	20.9	10.8	2.1	0.7
4 adults, 1 child	5.1	27.6	7.5	2.9	13 +	10.6	3.3	0.7	0.3
4 adults, 2 children	2.8	40.9	12.8	5.2	Other	1.6	0.0	0.0	0.0
4 adults, 3+ children	1.6	57.4	22.3	9.8					
4+ adults	13.4	34.0	10.1	4.5					
<u>Occupation of the household head</u>					<u>Sex of the household head</u>				
Inactive	22.2	20.5	5.6	2.4	Male	82.8	25.5	7.4	3.1
Private sector	36.7	24.4	7.3	3.2	Female	17.2	27.3	8.1	3.6
Public sector	17.9	18.0	4.6	1.8					
Owner	6.6	5.0	1.0	0.3	<u>Individual age</u>				
Self-employed without an establishment	6.2	48.5	17.9	9.1	- 14	21.9	39.4	13.1	6.0
Self-employed with an establishment	7.6	21.3	6.3	2.7	15 - 24	15.1	28.7	8.3	3.5
Other occupation	2.7	26.3	8.0	3.1	25 - 34	13.6	23.8	6.6	2.7
Unemployed	0.2	52.2	22.0	13.4	35 - 44	12.0	25.8	7.6	3.3
<u>Status of the household head</u>					45 - 54	11.2	18.7	4.5	1.7
Single	4.8	21.5	6.3	2.8	55 - 64	12.1	15.9	4.0	1.6
Married	72.2	22.7	6.1	2.4	65 -	14.2	17.6	4.1	1.4
Free Union	6.4	61.1	24.1	12.3					
Divorced	6.9	34.0	10.6	4.9					
Widow/er	9.8	22.0	5.6	2.2					

Source: Based on INE (Uruguay) figures.

richest of the elderly.

Anyway, disaggregating by individual age, the results show that the elderly do not present the worse situation. On the other hand, there is an important contribution to poverty of children because of the higher birth rate of poorest families.

Finally, the occupation of the household head is linked to poverty status. The situation for members of households with an inactive chief is like the dependents of elders: the count ratio index is similar to the participation in the population although 93% of inactive heads depend on the social security system. Once again, 20% of total inactive population live in an extended family although the 95% of them are older than 55 years old.

Members of household whose head is self-employed without an establishment -these conform the most important sub-group of the informal sector- or unemployed present the highest poverty indexes. But their contribution in percentage is not high because of their low participation. Anyway, self-employed participation grew along the decade and so the contribution to poverty. Respect to unemployed, the low participation is due to the low rate of unemployment of heads even in periods of high unemployment.

Given the important weight of private sector workers, whose poverty indexes are also above the global ones, this group accounts for approximately 40% of the poor. Respect to public workers, the poverty indexes present some variations during the decade that are analyzed in the next section.

B. Changes of the poverty profile during the decade

In spite of the stability of poverty indexes during the decade, the disaggregated analysis shows that the small differences in the indexes hide important changes in some occupations.

The combination of the results of Table 3 and Table 5 suggests that the crisis at the beginning of the decade affected firstly (1982) those in the poorest situation, and in a second time (1983) rebounded in the individuals with incomes near to poverty line. Thus, the drop of 24% of the mean of the equivalent income in 1982 can explain the decline of the percentage of individuals below the poverty line and the increase of P_2 denotes a higher dispersion of the income of the poor. It was in 1983, when average income fell 43%, that the poverty gap in the population widened maintaining the poverty gap in the poor at the same level as in 1982.

This is consistent with the increase in 1982 of the head count index and poverty gap of self-employed without an establishment (from 7.3 to 8.8), which bore the worse conditions during all the decade but had a little participation in all heads as mentioned. In any event, the

percentage of self-employed without an establishment grew, trend observed during the entire decade, suggesting that fired chiefs of households tried their chance in the informal sector and did not abandon it. In spite of the high rate of unemployment, the poverty gap corresponding to unemployed heads did not rise dramatically until 1983: the unemployment insurance covers six months after the layoffs so the crisis impact affected unemployed incomes with a lag.

The stable level of the global indexes also hide the relative improvement of public workers in 1982-83 and of owners in 1983. The poverty indexes of the former suggest that public wage policy did not follow the private sector adjustment. Besides, the actual status of public employment forbid workers to be fired so public employees did not bear the weight of the crisis during those years.

In the last year of the crisis (1984) income distribution improved in the context of a decrease of 23% of the average equivalent income. The reorganization of the unions - whose aim, especially at the beginning of their action, was to decrease wage disparities - should explain this phenomenon. In this context, the weight of public sector workers in the poverty group increased; given the political situation (the last year of the dictatorship), public worker unions were weaker than private ones. In any event, after the government elections, in December of that year they had an important increase of wages that is not included in the 1984 second term information and is linked with its improvement in 1985.

Even though 1985 is the first year of growth, the average equivalent income is similar to that of the preceeding year and the head count ratio did not change, but P_1 and P_2 presented a small increment. A recuperation of public workers' indexes and the sustained levels for private ones combined with a deterioration of those of owners and self employed-workers without establishment. Thus, the power of labor unions at the beginning of the democracy period affected the two tails of the distribution: the non-organized (informal sector) and the owners.

In the recovery of 1986-88, the poverty indexes reached their lowest levels. Again, even though the stability of the indexes in that period, with the fiscal adjustment of 1987 the relative poverty of public workers increased. Private workers were adversely affected by the change in economic conditions in 1988, when government modified wage policy. On the other hand, indexes of owners improved. At the same time, in 1987-88 self employed-workers without establishment improved their poverty indexes if compared with 1985-86: the regional change (relative prices of Brazilian - Uruguayan goods) allowed an increase of contraband trade, one of the main activities of that group.

Even though relaxation of the fiscal adjustment in 1989 contributed to lower values of the distribution indexes, the poverty gap among the poor grew. This suggests that the attempts of the government to reduce conflicts in the electoral year would have not improved the situation of the poorest, who in fact, did not coincide with the organized social groups. In fact, the dependents of self employed-workers and inactive were the highest most adversely affected.

Table 5

Decomposition by household head occupation

Values of P0

	Inactive	Private Sector	Public Sector	Owner	Self - employed		Other Occup.	Un-employed	All
					without establ.	with establ.			
1981	25.5	30.9	25.8	5.3	32.3	20.4	43.0	20.8	26.3
1982	21.0	31.2	20.0	4.5	43.1	27.0	39.7	26.9	25.5
1983	20.0	31.9	19.8	2.0	48.8	24.1	48.9	72.5	26.1
1984	20.1	27.4	24.3	2.3	41.5	22.6	28.8	61.3	24.3
1985	21.8	26.7	18.5	6.2	53.0	23.0	29.5	45.1	24.1
1986	20.5	24.4	18.0	5.0	48.5	21.3	26.3	52.2	22.4
1987	23.4	24.9	23.6	5.2	40.7	17.6	38.8	40.0	23.8
1988	22.2	28.3	19.7	3.8	40.6	16.8	22.0	14.7	23.4
1989	25.5	25.3	19.6	2.8	45.0	18.5	30.9	66.7	23.9
1990	25.0	28.4	23.6	2.5	50.1	19.9	26.9	61.1	25.8
X in pop. *	23.6	36.5	17.2	6.3	5.5	8.4	2.1	0.2	100.0

Values of P1

1981	7.2	9.5	6.9	1.2	13.3	6.2	20.8	10.9	8.0
1982	5.9	9.7	5.6	0.9	17.0	10.6	14.5	8.7	8.1
1983	5.9	10.1	5.7	0.2	18.9	8.1	19.8	34.3	8.4
1984	5.3	8.7	7.0	0.6	16.3	7.6	12.1	31.6	7.6
1985	5.9	8.8	5.3	1.6	22.6	8.9	12.1	26.8	8.0
1986	5.6	7.3	4.6	1.0	17.9	6.3	8.0	22.0	6.6
1987	6.3	7.4	5.9	1.5	15.0	3.6	15.8	18.6	6.9
1988	5.6	8.4	5.2	1.4	14.9	5.5	6.3	6.4	6.8
1989	7.1	7.6	4.7	0.5	18.7	6.5	12.2	30.1	7.3
1990	6.7	8.0	5.9	0.9	18.9	6.2	10.3	16.6	7.5

Values of P2

1981	3.0	4.3	2.8	0.3	7.3	2.8	12.9	5.7	3.6
1982	2.6	4.5	2.2	0.3	8.8	5.7	7.9	3.1	3.8
1983	2.5	4.4	2.3	0.0	9.4	5.9	10.7	21.6	3.8
1984	2.2	3.9	2.8	0.2	8.3	3.7	4.6	18.6	3.4
1985	2.5	4.1	2.2	0.6	12.9	4.7	6.0	18.3	3.8
1986	2.4	3.2	1.8	0.3	9.1	2.7	3.1	13.4	2.9
1987	2.6	3.2	2.2	0.1	7.9	1.2	9.3	9.7	3.0
1988	2.0	3.7	1.9	0.6	7.2	2.3	2.3	2.8	2.8
1989	3.0	3.3	1.7	0.2	9.6	3.2	6.3	16.3	3.2
1990	2.7	3.3	2.1	0.4	9.5	2.9	5.4	5.2	3.2

* % in population is the average of the decade.

Source: Based on INE (Uruguay) figures.

With the new Government in 1990, the poverty and distribution indexes grew up. The fiscal adjustment hit public employees hardest: the new pension legislation that obliged the government to increase the real income of the retired implied an additional budget restriction. In the private sector, the balance of the swings in wage policy was an increase of workers' poverty indexes. Respect to self-employed workers without establishment, poverty grew up. Once again, the Brazilian situation had an impact in the generation of income of the informal group: a stabilization program in Brazil that changed relative prices compressed smuggling.

Comparing the beginning and the end of the decade, two structural changes seem to have occurred: one in self-employment and other in public dependants.

Firstly, the contribution to the head count ratio of self-employed workers without a establishment (always above the mean), increased because of both the widening poverty gap in the class and the increasing share of individuals depending on their income.

Secondly, the new pension legislation restrained government possibilities in fiscal adjustments. Public wages became one of the main instrument to compress public spending. In this context, the retired will tend to decrease the share of those in the poverty as the time that the share of public employees will tend to increase.

V. Conclusions

Although there were external shocks and changes in macroeconomic and income policies, the poverty indexes did not register important variations. But the fluctuations in average income suggest that the levels of absolute poverty could have been affected. Anyway, the decomposition of the indexes using a relative poverty line, permits to measure the short term differences of impacts among occupations during the decade.

Thus, in spite of the fact that the regional environment affects all the economy, the informal sector appears to be particularly sensitive to its changes but in the opposite direction. When relative prices in the region induce a high demand for Uruguayan goods, smuggling decreases and so self-employment without establishment activity. As formal sector has the most important weight in national income, the positive external shocks allowed a decline of global poverty indexes.

But the adjustment to the deterioration of regional environment in 1987-88 affected public and private employees situation. Meanwhile changes for public employees depended on the timing of fiscal adjustments, swings on private sector agents depended on their bargaining strengths and the wage policy.

With high poverty indexes, the contribution to poverty of self-employed workers without establishment grew up during the decade, as a consequence of a structural trend of both increasing participation and poverty of informal sector. On the other hand, other structural changes characterize those whose main source of income comes from the public sector. Given the financial problems of the social security system and the link between public wages and pensions adjustments, another expected trend for the future is an increase of poverty of public employees.

The decomposition of poverty indexes also permits a study of the structural links between head of household characteristics and poverty. The relation between education and poverty status shows that low schooling of the household head is associated with low household income. A trend of increasing schooling in population is changing the structure of household head education. A more homogenous labor force suggests that the contribution of higher educated to poverty could increase in the future. On the other hand, the different quality between private and public education could be useful to explain poverty status in the future: the restraint of investment in public education will affect its quality and therefore the education of the poorest, who are outside the private system.

Finally, decomposition permits a more complete characterization of the poor. Even with a low contribution in percentage, individuals belonging to households where the head is a woman present a high poverty level. These poor households are affected by the low education of the heads and the absence of other sources of income. In addition, a percentage of them have one or more children, contributing to a high percentage of children below the poverty line. Children situation is explained also by the higher rate of birth of poor couples. Combined with the restraint of social spending, specifically in education, these cohorts have a little possibility of leaving poverty.

References

Bucheli, Marisa (1992), "Los logros educativos y los niveles de ingreso", Doc. N°4/92, Departamento de Economía, FCS, Uruguay.

CEPAL (1987), "Bosquejo de la metodología del mapa de la pobreza en el Uruguay", Montevideo, mimeographed.

CEPAL (1987), "Determinación de líneas de indiferencia y pobreza: una propuesta metodológica para economías con inflación", *CEPAL*, Montevideo, mimeographed.

Diez de Medina, R. (1989). "Estructura socio-ocupacional y distribución del ingreso en Uruguay (1984-88)", CEPAL, Montevideo, mimeographed.

Erro, L., Guinovart B. & Torrado, R. (1991). "Uruguay: caracterización de zonas geográficas mediante técnicas de análisis de datos", *Banco Central del Uruguay*, mimeographed.

Foster, J.E., Greer, J. & Thorbecke, E. (1984). "Notes and Comments - A class of decomposable poverty measures", *Econometrica*, 52(3), 761-766.

Gustaffsson B. & Makonnen, N. (1991). "Poverty and remittances in Lesotho", Department of Economics, University of Gothenburg, mimeographed.

Katzman, R. (1989) "La heterogeneidad de la pobreza. El caso de Montevideo", *Revista de la CEPAL*, 37.

Melgar, A. (1988) "La distribución del ingreso en la década de los 80", mimeographed.