Poverty and the Employment Problem in Argentina

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Introduction

The years since 1980 have been turbulent ones for Argentina. Unable to find a successful strategy to counter a rising debt burden and heavy fiscal deficits, the country suffered a 25 percent reduction in per capita income, two bouts of hyperinflation and a sharp rise in poverty during the 1980s. In 1990, the Menem government began a profound restructuring of the Argentine economy. A centerpiece of the new program was the Convertibility Plan, designed to control inflation once and for all. Other elements of the program were a control of the government deficit, privatization, reductions in tariff barriers, and a reform of social spending.

To date, the results of the Menem program have been impressive. Inflation has fallen from 60 percent per month early in 1990 to less than 1 percent in 1995. By 1994, per capita income recovered most of the ground lost in the 1980s. The overall deficit of the government has shrunk from around 4-5 percent of GDP in the late 1980s to less than 0.5 percent in 1994. Thanks to the Convertibility Plan, fiscal deficits and monetary emissions are no longer a source of inflation.

Increasing competitiveness has also paid off in rising exports, despite an appreciation of the real exchange rate. Between 1989 and 1994, exports rose by 10.5 percent per year compared to the previous decade when they rose by only 2.1 percent. This, coupled with the reduction in interest rates and the Brady refinancing of foreign debt, lowered the debt burden (measured as interest payments relative to exports) from 50 percent in 1989 to 23.5 percent in 1994.

What was the effect of all these changes on the level of poverty, employment and social equity? These are the questions we want to address here. We will divide the analysis into three parts. In the first one, we examine movements in poverty and distribution, and their causes. In the second, we look at the labor market to better understand the increasingly difficult problem of employment and unemployment. In the third, we draw some conclusions about the implications of Argentina's experience for the general debate on how to create a sustainable growth strategy that can reduce poverty and unemployment without hyperinflation.

Changes in Poverty and Income Distribution since 1980

The Argentine case is a striking counterexample to the general theory that adjustments are necessarily regressive and harmful to the poor. In Tables 1 and 2, we display a number of the estimates of poverty and the distribution of income over the period since 1980. All of them tell the same story: a sharp rise in poverty and inequality over the 1980s, followed by an equally sharp decline between 1990 and 1994 when the Menem government successfully stopped hyperinflation.

The downturn of 1994-95 has not entirely reversed this sunny picture, but it has cast some shadows on it. Poverty has risen, as is to be expected in a recession. But whereas severe poverty fell more than the levels between 1989 and 1993, in 1995 the opposite occurred. Spurred by the unprecedented rise in unemployment, severe poverty is now rising far faster than the simple poverty index. Thus, while the adjustment has overall been particularly favorable for the poor, there is a subset of the extremely poor, among which must be many of the unemployed, for which there has been a serious deterioration since 1993.

Consider now more carefully the relationship between poverty, distribution and macroconditions, implied in Tables 1 and 2. Note first that there are wide variations in the estimates of poverty for any particular year in Table 1. Those differences are explained by the use of different poverty lines and different methods for handling income underreporting. They need not concern us here because we are less interested in a single year estimate of poverty than in poverty trends over time. Since each of the series in the table is internally consistent, i.e. uses the same method for underreporting and the same poverty line, the way to use the table is to look at the trends in the various series over time. If they are consistent with each other regardless of how much they differ at any point in time, we can be quite certain that poverty as measured by any line or methodology would have the same pattern shown in the table.

With all that in mind, compare the trends in Tables 1 and 2 with the trends in output, inflation and the minimum wage shown in Table 3. There are three important points suggested by these tables. First, poverty and inequality rose more or less constantly through the 1980s, peaked in 1989 and have since receded sharply, but not back to the favorable levels of 1980.

The second point is that there is a fairly clear relationship between poverty and income per capita. The available data do not exactly correspond to cycles in the economy, but they are close enough to draw some conclusions. One can distinguish seven subperiods over which we have consistent poverty observations. They are 1980-82, 82-85, 85-87, 87-89, 89-91, 91-93, and 93-95. In five of those seven subperiods, there is a clear negative relationship between poverty and income per capita. When the economy was in recession as in 1980-82, 87-89, and 93-95, poverty rose. Poverty fell in the recovery periods of 1989-91 and 1991-93. There are two subperiods in the mid 1980s when the relationship fails.The years 1982 and 1985 are both recession years but the income is far lower in the second than in the first. Yet the INDEC series shows poverty falling between 1982

and 1985. This could at least partially be the result of rising minimum wages. More paradoxical is the recovery between 1985 and 1987. During this period, real income, the minimum wage, and poverty all increased together. These anomalies aside, the poor gained when the economy was growing, and lost during recessions.

Table 1
Percent of Population below the Poverty Line
(Gran Buenos Aires)

Year	INDEC	Morley Alvarez	Pessino (househ.)	World Bank
1980	.101	.063		16.2
1982	.28			
1985	.206			
1986		.109		20.9
1987	.252			
1988	.279			
1989	.346	.215 (May)	38.2 (Oct)	25.5
1990	.350			35.9
1991	.226		16.3 (Oct)	25.5
1992	.173			18.7
1993			13.3 (May)	17.6
1994			11.9 (May)	
1995			16.3 (May)	

Sources: World Bank, *Argentina's Poor: A Profile*. (Report No. 3318-AR, June 1995), and Carola Pessino, worksheets supplied to authors.

The third point suggested by the poverty data in the table is the relationship between the inflation rate, the minimum wage, and poverty. Because of lags in adjustment, and the inability of the poor to bargain for indexed contracts, real wages generally fall during inflationary episodes. That hurts the poor. This causal link is absolutely clear in the hyperinflation of 1989-1990 and the successful control of inflation in subsequent years. Real wages fell by more than 20 percent between the mid eighties and 1990, when inflation rose from 15 percent to 60 percent a month. But the same connection is suggested by other years in the sample as well. Between 1980 and 1982, for example, poverty rose much more sharply than one might have expected from the 10 percent decline in per capita income that took place.That is probably related to the a doubling of the monthly inflation rate and a fall of 20 percent in the real wage (in manufacturing).[1]

Table 2
Gini Coefficients for Argentina

Year	**World Bank**	**Pessino**
1980	.408	
1986	.444	
1987		.351
1989	.526	.427
1990	.467	
1991	.474	.353
1992	.453	
1993	.461	.354
1994		
1995		.356

Sources: World Bank, op. cit., and Pessino worksheets.

[1] There is a sharp difference between the behavior of minimum and average wages between 1980 and 1982. The former rose by 4 percent and the latter fell by 20 percent according to CEPAL. Note that a study of real wages in Latin America has the same average wage series, but shows the minimum wage falling by 2 percent. See Alejandra Cox-Edwards, "Wage Trends in Latin America," (World Bank, LATHR 18, 1991).

Table 3
Macro Statistics

	GDP per capita	Minimum Wage	Yearly Inflation (%)
1980	100	100	100.8
1982	83.8	104	164.8
1985	78.5	113	672.2
1986	83.1	110	90.1
1987	84.0	121	131.3
1988	79.9	94	343.0
1989	74.2	42	3079.2
1990	73.3	40	2313.0
1991	78.8	53	171.7
1992	84.5	45	24.9
1993	88.6	70	10.6
1994	94.0	81	3.9

Source: IDB, *Economic and Social Progress in Latin America* (various years), and Luis Riveros, "Minimum Wages in Latin America: The Controversy about their Likely Effects", University of Toronto: Center for International Studies, 1996, FC1995-2.

Finally, if we were to make comparisons of impact, it seems clear that hyperinflation has at least as severe an impact as recession on the poor. Look at the output and inflation trends. Between 1980 and 1982, output fell by more than 20 percent. Poverty, as one would expect, rose sharply. But it then rose by 25 percent more (from 0.28 to 0.35) between 1988 and 1989 in response to a dramatic rise in inflation even though output per capita actually increased. Poverty rose even further in 1990, despite the beginning of economic recovery because hyperinflation continued at a very high level. Hyperinflation is what reverses the usual relationship between adjustment and poverty in Argentina. Severe inflation is clearly regressive. Controlling it helps the poor and improves the distribution of income even if it requires recession to do so.

A DECOMPOSITION OF CHANGES IN POVERTY SINCE 1980

We now turn to the question of which groups were the main contributors to rising poverty in the 1980s and who the beneficiaries of falling poverty were in the 1990s. We go back to 1980 in this analysis because, in some sense, it is the last more or less "normal" year before Argentina entered into the ruinous cycles of inflation and recession that characterized the decade. The decompositions that we will display here will allow us to pinpoint the main losers and winners (if any) of recession, inflation and adjustment.

The poverty index shown in Table 1 is the fraction of population below the poverty line. The trouble with this index is that it is insensitive to what happens to the income of those below the poverty line, provided that they do not receive enough income to get out of poverty altogether. Furthermore, the index has the perverse characteristic that it will show a reduction in poverty if there is a transfer of income from the extremely poor that moves those just below the line out of poverty. Clearly, the preference would be for an index which is sensitive to the intensity of poverty, and that will also register an increase whenever there is a transfer of income from someone who is poor to someone who is less poor.

An index satisfying this requirement has been developed by Foster, Greer and Thorbecke (FGT). It is defined as:

Here n = number of individuals in population
q = number of individuals below poverty line
Z = poverty line
Y_i = income of individual i
a = degree of poverty aversion

In other words, the FGT index is the summation of the percentage gap between the income of each member of the population in poverty and the poverty line, raised to a power which depends on the degree of poverty aversion. Note that if we set α equal to zero, implying that we have no interest in the intensity of poverty, the index becomes the headcount ratio. That is:

Similarly, if we set α equal to one, the index is the poverty gap.

P^1 is the percentage by which the average income of the poor falls short of the poverty line multiplied by the percentage of the population in poverty. P^1 is an improvement on P^o since it is sensitive to changes in the distribution which increase the poverty gap even if they reduce the headcount ratio. But P^1 is still insensitive to transfers within the poverty population as long as they leave the average income of the poor unchanged. To incorporate our concern for the intensity of poverty, we will calculate the FGT index for alpha equal to 0, 1 and 2. The comparison of these three indexes will show the sectors with high proportions of the very poor.

In addition to allowing us to examine the severity of poverty, FGT indexes have the advantage of being decomposable, which makes them a good tool for determining sources of poverty and changes in poverty over time. For any FGT index *P*, we can decompose changes between two points in time as follows:

The first term on the right hand side of the equation is the contribution of changes in the poverty indices within each group *j*, and the second represents changes due to movements of the population between groups. The third, or crossproduct term, tells whether expanding groups have rising or falling poverty indexes. For simplicity in the tables that follow, we will use only the contribution of the within group component to the overall change in poverty.

Table 4
Changes in Poverty by Education and Labor Market Status
1980-89

	POVERTY INDEX		CONTRIBUTION TO POVERTY		CONTRIBUTION TO CHANGE IN POVERTY	
	1980	1989	1980	1989	Pop. Share in 1980	1980-89
P^0 (% in poverty)						
By education						
Illiterate	.336	.514	.365	.108	.068	.079
Grade School	.053	.270	.508	.697	.598	.850
High School	.030	.052	.109	.169	.231	.157
University	.012	.043	.018	.022	.094	.019
Total	.063	.215				
By labour market segments						
Formal	.083	.201	.666	.439	.506	.391
Informal	.043	.235	.181	.327	.267	.338
Unemployed	.068	.475	.007	.054	.006	.017
Inactive	.041	.067	.145	.160	.221	.212
Total	.063	.215				
P^1 (Poverty Gap)						
By education						
Illiterate	.116	.254	.447	.140	.068	.146
Grade School	.013	.100	.456	.682	.598	.811
High School	.007	.046	.089	.154	.231	.141
University	.001	.015	.007	.020	.094	.020
Total	.018	.081				
By labour market segments						
Formal	.026	.071	.742	.411	.506	.358
Informal	.008	.096	.125	.353	.267	.369
Unemployed	.005	.222	.002	.002	.006	.022
Inactive	.010	.067	.131	.131	.221	.196
Total	.018	.081				

Source: Samuel A. Morley and Carola Alvarez, "Recession and the Growth of Poverty in Argentina," (IDB, working paper #125, February 1992).

Table 4 displays the decomposition of two of the FGT indexes (the percentage in poverty and the poverty gap) for the period 1980 to 1989. The first two columns in the table are the poverty indexes disaggregated by education levels and labor market status. The third and fourth columns show the contributions to poverty of each of the subgroups. Thus, for example, we see that 5.3 percent of grade school graduates were poor in 1980 but that they comprised 50.8 percent of the poverty population. The fifth column gives the population share in 1980. Any group with a poverty contribution larger than its share of the population has a higher than average incidence of poverty.

The last column in the table is a measure of which subgroups played the biggest part in the unprecedented rise in poverty over the decade. It is defined as the within group component of equation (5) divided by the aggregate change in the poverty index. Note that the sum of within group contributions to the change in poverty need not add

up exactly to 1 because of the between groups and cross product terms (not shown in the table). Thus, the table tells us that 85 percent of the rise in poverty over the decade came from the families headed by grade school graduates.

The table shows several things about the effect of recession and hyperinflation in the 1980s. First, there was a sharp rise in poverty and an even sharper rise in extreme poverty. (P^0 rose by 240 percent while P^1 rose by 350 percent.[2]) Those big increases were highly concentrated among illiterates and grade school graduates who were the poorest members of the community to start with. Poverty incidence rose by over five times, and the poverty gap rose by almost eight times among grade school graduates over the decade. By 1989, this group comprised 69.7 percent of the poverty population. More to the point, it contributed 85 percent of the rise in poverty and 81 percent of the rise in the poverty gap, with most of the remainder coming from illiterates. Illiterates were not a large share of the household population in 1980. But not surprisingly, they were a large share of the extremely poor in that year (0.447). And because their average income fell from 65 percent of the poverty line to 50 percent, they were responsible for almost 15 percent of the total rise in the poverty gap over the decade, more than twice their share in the population. All this demonstrates the heavy cost that recession and hyperinflation exact on the poorest households, because they are the least able to defend their wages against the effect of hyperinflation.

When we decompose the poverty indexes by labor market status, we see other dimensions of the causes of the rise in poverty over the decade. The table tells us that in 1980 the informal sector had a lower incidence of poverty than the formal sector. This relationship dramatically changed over the decade. In 1980, only 18 percent of the poor came from the informal sector. Yet, it contributed over a third to the rise in poverty, and an even greater amount to the poverty gap. Over the decade, the average income of those who worked in the informal sector fell from 81 percent of the poverty line to 60 percent. Thus recession pushed people into the informal sector and disproportionately drove down the income of those who worked there. (Average income for formal sector households only fell from 69 percent to 65 percent of the poverty line.)

In 1980, unemployment among household heads was not a big cause of poverty; only 7 percent of the unemployed heads of households were poor and less than 1 percent of the poor came from this source. Not surprisingly, in 1989 this same group had a far higher likelihood of being in poverty. Fortunately, and in spite of the recession, very few household heads in the labor force were unemployed. Thus, despite the rise in the incidence of poverty in this group, only 1.7 percent of the rise in poverty (or 6.5 percent counting the expansion in the size of the group) was accounted for by the unemployed. Rising unemployment among household heads due to the recession was not a major cause of the increase in poverty.

A different picture emerges for the inactive class. In 1980, some 22 percent of the population and 14.5 percent of the poor were in this group. Over the decade, the incidence of poverty in the group rose from 4.5 percent to 18.8 percent, implying that 21.2 percent of the increase in poverty incidence was caused by rising poverty among the inactives.

Poverty went up in the 1989 recession in part because wages went down for working people, particularly in the informal sector, and in part because retirement incomes and transfers were inadequately indexed for inflation. Unemployment per se was not a particularly significant additional source of rising poverty.

Poverty data in Table 2 imply that Argentina's inability to effectively deal with its debt crisis and fiscal imbalances must have had a strongly regressive effect on the distribution of income. This impression is confirmed by a historical series of Gini coefficients recently published by the World Bank and reported in Table 2. Over the 1980s, poverty indexes more than tripled. The

[2] P^2 (not shown) rose by an even greater 514 percent.

jump in the Gini coefficients between 1980 and 1989 is the largest one-decade increase in inequality observed in any country for which we have a record. This only underlines what our poverty statistics already have told us—the combination of hyperinflation and recession has an especially powerful negative impact on the bottom of the distribution.

CHANGES IN POVERTY DURING THE MENEM ADJUSTMENT

We turn now to the main part of our analysis: the changes in poverty during the period starting in 1989, a period which has seen the most dramatic restructuring of the Argentine economy in the last forty years. In Table 5, we show the contribution of the different education and labor market classes to the overall change in poverty during the periods indicated.

Table 5
Contribution to Changes in Poverty, 1989-95

	INITIAL POPULATION SHARE			CONTRIBUTION TO CHANGE IN POVERTY					
	1989	1991	1993	1989-91	1991-93	1993-95	1989-91	1991-93	1993-95
P^0 (% in poverty)				within			between		
By education									
Illiterate	.021	.017	.019	.005	.143	.030			
Incomplete + Complete Primary	.559	.533	.506	.683	.744	.421			
Incomplete Secondary	.146	.152	.172	.187	.061	.394			
Complete Secondary	.132	.143	.156	.085	.157	.075			
University Complete + Incomplete	.141	.145	.150	.023	.058	.024			
By labor market status									
Independent + Owners	.188	.192	.217	.194	.109	.387	-.005	-.095	-.096
Worker	.481	.492	.459	.514	.792	.408	-.021	.188	-.055
Unemployed	.031	.017	.050	.054	.010	.113	.050	-.413	.411
Retired	.267	.271	.240	.181	.304	.277	-.005	.177	.034
P^1 (poverty gap)									
By education									
Illiterate	.021	.017	.019	.014	.224	.022			
Incomplete + Complete Primary	.559	.533	.506	.729	.265	.647			
Incomplete Secondary	.146	.152	.172	.154	.041	.221			
Complete Secondary	.132	.143	.156	.066	.082	.044			
University Complete + Incomplete	.141	.145	.150	.023	.102	.051			
By labor market status									
Independent + Owners	.188	.192	.217	.177	.184	.074	-.004	-.184	-.074
Worker	.481	.492	.459	.470	1.810	.382	-.017	.306	-.029
Unemployed	.031	.017	.050	.077	.081	.140	.059	-1.102	.353
Retired	.267	.271	.240	.200	-.204	-.213	.004	.224	.022

Source: Carola Pessino worksheet calculations.

This table should be read in conjunction with Table 1, which shows the poverty indexes themselves. Note that, since poverty was declining between 1989 and 1993, a positive number in a cell in Table 5 implies that the component contributed to the overall reduction in poverty. For the labor market decomposition, we included the percentage contribution of variations in the size of the group in question in addition to the within group component of equation five. This is because of the great

change in the size of the unemployed component in the two periods after 1991.

Thanks to the reduction in inflation, the rise in real wages and the beginning of economic recovery, there was a very sharp reduction in the overall level of poverty between 1989 and 1991. About one-half of the reduction came from reduced poverty among workers with another 18 percent coming from reduction in poverty incidence among the retired. Note that only 10 percent of the reduction in poverty came from the unemployed, either because of a reduction in incidence within the group or from a shrinkage in the size of the group. That simply reflects the small size of the group in 1989.

The improvement over these first two years of the Menem program benefitted all groups in the economy including the retired, but it was particularly beneficial to the working poor at the bottom of the income pyramid. Consider the decomposition by education level, a good proxy for the distribution of income. For all four of the bottom education classes in Table 1, the percentage reduction in the incidence of poverty was higher than the overall average and the bottom three classes in Table 5 contributed 89 percent of the within class reductions in poverty even though they comprised only 72 percent of the poor in 1989. Clearly, the taming of hyperinflation and the beginning of economic recovery had a highly progressive impact on poverty and also on the overall distribution of income.

Between 1991 and 1993, Argentina continued to reap the benefits of the adjustment program. Per-capita income grew by over 12 percent, inflation continued to decline, and the real value of the minimum wage rose by 35 percent. As a result, poverty continued to decline. The dominant feature of the period was the 30 percent reduction in the incidence of poverty among workers. That directly accounted for 80 percent of the overall reduction in poverty, and if one also counts the shrinkage in the percentage of workers in the poverty population from the between groups columns, the contribution rises to practically 100 percent.

Note that these gains for workers came in the absence of significant overall employment growth. Indeed, rising unemployment was a significant offset to the overall reduction in poverty as one can see from the between column of the table. The rise in the share of the poor who were unemployed by itself would have raised the overall poverty index by 1.2 percentage points (.413*.0293). The period was even more progressive than the poverty incidence index suggests. Gains were not just concentrated among those workers close to the poverty line. Overall, the income of the average poor worker rose from 71.7 percent of the poverty line to 75.8 percent. That is why the contribution of the working poor to the reduction in the poverty gap is more than twice as high as their contribution to the reduction in poverty incidence.

These significant reductions in poverty for the working poor must reflect the increase in the minimum wage plus opportunities to work more hours and to be promoted to higher paying jobs that were made possible by rapid growth. The progressivity of these trends was reinforced by a narrowing of the wage differential (the minimum wage rose by 26 percent while the average rose by only 6 percent).[3]

These favorable economic and poverty trends were abruptly broken in 1995 when the "tequila crisis" halted capital inflows and forced Argentina into a balance of payments crisis and recession. By May, unemployment had risen to the unprecedented level of 20.2 percent. Output fell sharply and poverty rose from 12 percent in May, 1994 to 16.3 percent one year later.

The unemployed bore the brunt of this increase in poverty. Even though the unemployed as a group comprised only 5 percent of the poor in 1993, between the rise in poverty incidence within the group and the expansion of the group, Table 5 tells us that the unemployed contributed about 50 percent percent to the rise in both poverty incidence and the poverty gap. The retired fared far better

[3] See Riveros op. cit. The average wage cited here is the average for 12 manufacturing industries.

than either workers or the unemployed. Their poverty incidence actually declined during the recession. All of this is in sharp contrast to what happened in the recession of 1989. In that recession, it was the workers and the retired who were the primary victims of hyperinflation and falling real wages. There was not a large expansion in unemployment and the number of unemployed heads of households was so small in 1980 that the total contribution of the unemployed to the rise in poverty was minuscule.[4] In 1995, there was no rise in inflation and both pensions and real wages were protected for those who kept their jobs. The problem was that there were few jobs to be had. For those that did not have work, or who lost their jobs and found no replacement, 1995 was far more serious than 1989.

[4] The within group and between group contribution of the unemployed only amount to 2.5 percent of the total change in poverty between 1980 and 1989.

Unemployment and the Labor Market

Up to the end of the 1980s, unemployment did not seem to be a particularly critical problem in Argentina. In spite of dramatic recessions, high inflation, and general economic disarray, adjustments in the labor market were reflected more in real wage flexibility than in variations in the rate of growth of employment or in unemployment. This panorama changed drastically in the early 1990s: unemployment increased dramatically and by 1993 spells of unemployment longer than 6 months accounted for 40 percent of total unemployment[5] (from 26 percent in 1987).

It has been argued that at least part of the explanation for the increase in open unemployment is the rise in participation rates, and particularly female participation rates (which increased from 43 percent in 1987 to 49 percent in 1994). In Figure 1, we perform the simple experiment of calculating what the unemployment rate would have been without changes in the participation rate and of comparing it with the actual unemployment rate. The exercise reveals two related points which are crucial to dimension the rise in unemployment. The first point to be noted is that without increases in the participation rate unemployment would have fallen between the first half of 1990 and the second half of 1992. Thus, at least part of the paradox of rapid GDP growth and a simultaneous increase in unemployment is revealed to be just a product of an increasing participation rate. The second point is that, without the increase in the participation rate, the unemployment rate would have attained 10.1 percent in the first half of 1995, not a trivial level in a country used to very low unemployment rates, but still consistent with the deep recession that the Argentinian economy was suffering at the time. Therefore, even if one should not conclude that the recent surge in unemployment is simply the product of increased participation rates, the dimension of the unemployment problem is smaller than what is suggested by a naïve analysis of the raw unemployment rate.

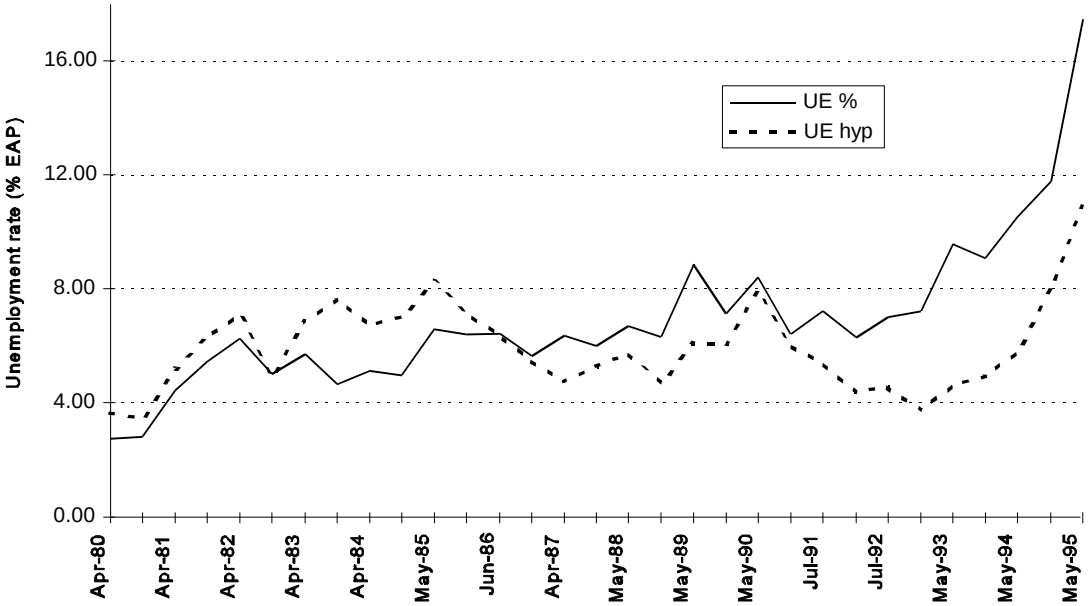
The most vexing trait of the rise of unemployment in Argentina is that employment growth has fallen, in spite of a more orderly economic environment and higher rates of growth. In 1994, in spite of 7 percent growth, unemployment was increasing at a rapid pace. All in all, output had grown 24 percent between 1991 and 1994 while employment had only increased by 2 percent.[6]

A cursory observation of the data presented in Figure 2 is quite illustrative of this contrasting dynamic of labor market adjustment. On one hand, between 1985 and 1991, employment growth is always positive, even during the dramatic recessions of 1985 and 1989. On the other, between 1991 and 1993, there is a deceleration of the rate of growth of employment, and in 1994 for the first time employment actually fell, even with

[5] Pessino, Carola "Report on the Labor Market and Productivity," mimeo, 1995, consultant report, January 1995, updated with data from the first half of 1995. Used with permission from the author.

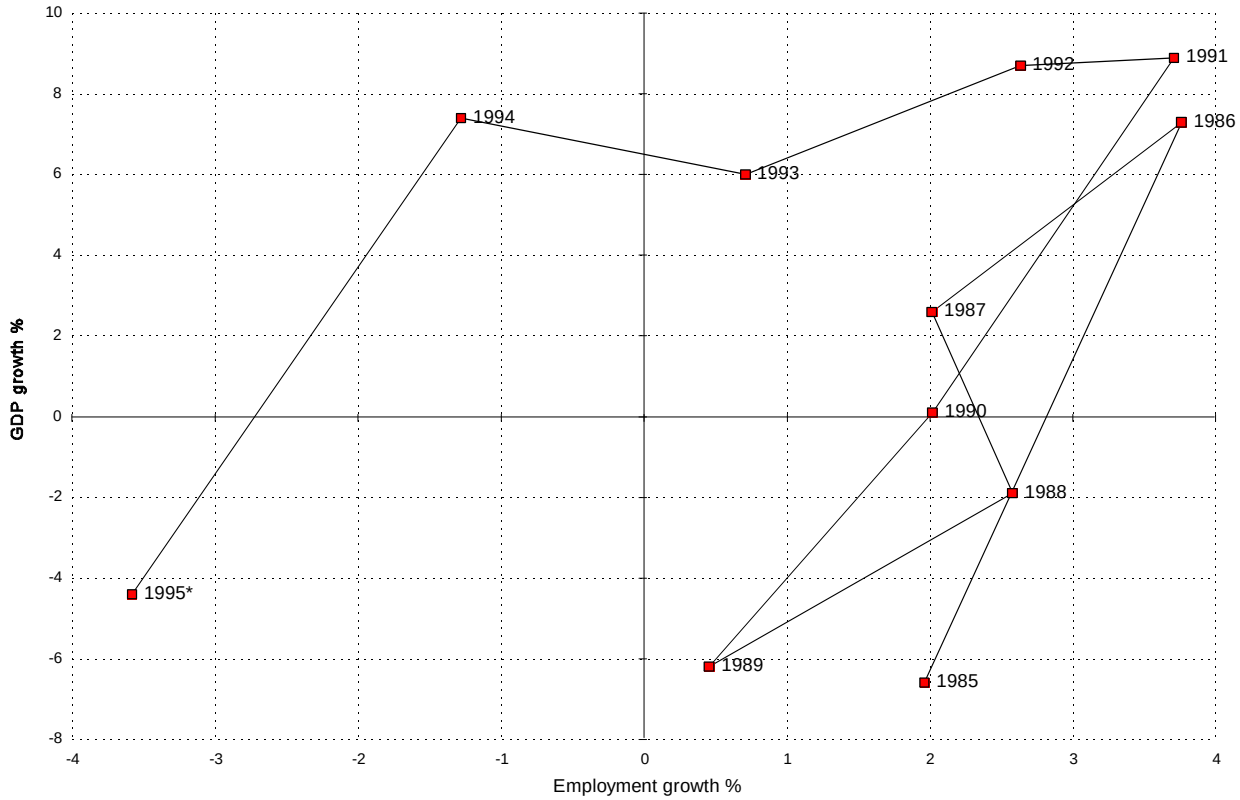
[6] Indicadores macroeconómicos de la Argentina, Julio-Septiembre 1995, Oficina de CEPAL en Buenos Aires.

Figure 1. Unemployment and Changes in the Participation Rate, Argentina 1985-1995



Source: authors' calculations on the basis of INDEC's Household Survey data for Great Buenos Aires. The hypothetical unemployment rate (UE hyp) is calculated using the average participation rate for the period 1980-1991.

Figure 2. Unemployment and Changes in the Participation Rate, Argentina 1985-1995



Source: *Indicadores macroeconómicos de la Argentina, Julio-Septiembre 1995*, Oficina de CEPAL en Buenos Aires.

The dynamic of the labor market adjustment during the pre-convertibility period is related to the high and volatile inflationary context, that made real wages flexible enough to allow for price adjustments in the labor market, and to protectionist policies that isolated domestic firms for competition and created incentives for labor hoarding. As it is usually the case in very inflationary and unstable economies, the situation of the labor market was actually worse than it is suggested by data on unemployment because of the high level of under-employment.

Bour[7] shows that average wages became quite flexible simply through delays in the nominal adjustments established in labor contracts. However, the counterpart of this successful adjustment was an enlargement of under-employment, with the ensuing long-term deterioration of productivity and wages. In Table 6, we present data on total labor force participation, employment of fully employed workers (those who are working full time and voluntary part-time employees), involuntary part-time employment, and unemployment for the period between 1974 and 1995.[8] Following the usual convention, we assume that involuntary part-time workers are under-employed.

In the 1983-1987 period, involuntary part-time unemployment grew faster than either full-time employment and unemployment. As a result, the participation of under-employment on total employment grew from 4.9 to 8.2 percent, but the unemployment rate remained basically constant in spite of low average growth during the period (which includes the deep 1985 recession). In the 1987-1990 period, which includes the 1989 recession, involuntary part-time employment again grew faster than full-time and voluntary part-time employment, but the unemployment rate increased to 6 percent at the end of the period. In contrast, between 1991 and 1995, involuntary part time employment grew at 17.7 percent annually, while the number of fully employed workers fell by 3.5 percent.

Protectionism and industrial policies that isolated domestic firms from the world market made for decreased pressures for technological change and productivity improvements. An indicator of this situation is that the average product per worker fell by 0.73 percent yearly between 1985 and 1990, while it increased at an annual 6.64 percent between 1990 and 1994. As a result, the whole policy equation implied that technological change was mostly absent in existing sectors, and not too labor saving in new sectors.

Changes in this dynamic are, without doubt, associated with the stabilization effort that Argentina undertook in 1991, and with the changes in the regulatory framework of the labor market. There are at least three factors that came into play with the stabilization policy. In the first place, privatization of public enterprises and the opening of the economy have led to substantial layoff of employees of both the former state enterprises and the domestic firms that could not withstand the competition of cheaper imported products. From this angle, the increase in unemployment is just the result of the reduction of labor hoarding in public and private enterprises.

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[7] Bour, Juan L, *Procesos de reforma del mercado de trabajo en Argentina*, consultant report for the IDB, March 1996.

[8] Pessino, C. , 1995, op.cit.

Table 6
Contribution of Under-Employment and Full Employment
to Total Employment Growth, 1974-1995

	EAP	Employed	IPT	U	% IPT/EM	% U/LEAP
May 1974	3,441,026	3,294,613	161,728	146,413	4.9	4.3
May 1976 (I. Perón)	3,437,616	3,269,455	161,568	168,161	4.9	4.9
May 1980 (Military)	3,466,951	3,389,674	162,947	77,277	4.8	2.2
May 1983 (Malvinas)	3,676,486	3,485,723	169,118	190,763	4.9	5.2
Oct 1987 (End Austral)	4,184,233	3,970,708	326,370	213,525	8.2	5.1
Oct 1990 (End Hyper.)	4,381,203	4,118,245	354,877	262,958	8.6	6.0
Oct 1991 (Menem I)	4,443,320	4,207,799	311,032	235,521	7.4	5.3
May 1995 (Convertibil.)	5,001,543	3,989,823	550,376	1,011,720	13.8	20.2

(% anual)

	dEAP/EAP	dE/E	dIPT/IPT	dU/U	dFT/FT
May 1974	-	-	-	-	-
May 1976 (I. Perón)	(0.05)	(0.38)	(0.05)	7.17	(0.40)
May 1980 (Military)	0.21	0.91	0.21	(17.67)	0.94
May 1983 (Malvinas)	1.98	0.94	1.25	35.15	0.92
Oct 1987 (End Austral)	2.92	2.94	15.73	2.54	2.12
Oct 1987 (End Austral)	1.55	1.22	2.83	7.19	1.08
Oct 1991 (Menem I)	1.42	2.17	(12.35)	(10.43)	3.54
May 1995 (Convertibil.)	3.44	(1.51)	17.71	51.66	(3.50)

Source: Pessino, C., op. cit.
Notes: LF: total labor force.
E: total employed.
IPT: refers to Involuntary part time workers, defined as those individuals working less than 35 hours a week and willing to work more.
U: refers to unemployed workers
FE: fully employed. Refers to the number of individuals working either full-time or voluntarily part-time.

The second factor directly associated with the convertibility policy is the change in the relative price of labor, and therefore the impulse for its substitution by capital. The first point to be noted is that because capital goods are imported, trade liberalization and the improved predictability of the exchange rate caused capital goods prices to fall. The second effect of the convertibility is related to the tradables/non-tradables relative prices. Kritz[9] shows that the combination of convertibility and trade liberalization in the manufacturing sector

[9] Kritz, Ernesto, "Paradoxes of Labor Market Adjustment: The Argentine Experience during the Initial Stage of the Economic Reform," Workshop on Labour Market Adjustment Experiences and Policies, OECD, Paris, 1994.

induced an imbalance between wholesale prices (which are prices of tradable goods, and therefore bound by world prices) and consumer prices (which contain a large fraction of non-tradable goods that rise faster than tradable goods prices). Even though labor productivity in the manufacturing sector grew at an annual 9 percent and the real wage deflated by the CPI grew at only 3.1 percent between 1990 and 1993, unit labor costs in the sector increased at 18.5 percent annually in the same period. Therefore, firms experienced strong pressures to, first, eliminate any form of labor hoarding and, second, to substitute capital for labor wherever possible.

As the data in Table 7 shows, this same process affected more than the manufacturing sector. In the left hand panel of the table, we present the evolution of the minimum wage in equivalent US dollars and in an index of real domestic currency, while in the right hand panel we present the evolution of industrial wages both in equivalent US dollars and in an index of real domestic currency. The first point to be noted is that the minimum wage in US dollars more than doubled between 1991 and 1995, while it rose only 43.7 percent in domestic currency. Even with a prudential wage policy, as the one the Argentine government pursued in this period, the dollar cost of a minimum wage worker doubled.

The second point is even more interesting, to the extent that it is more connected to market forces than the minimum wage, which is fixed by policy decisions. The average industrial wage in domestic currency actually fell slightly between 1991 and 1995, while in equivalent dollars it rose by 31.8 percent. Given what we now know about the evolution of employment it is not surprising to observe that wages remained flat in the period as the bargaining power of workers was reduced by the increase in observed unemployment. However, in spite of the flat evolution of wages measured in domestic purchasing power, the real cost of the average worker in the industrial sector increased significantly without doubt creating pressures for capital labor substitution in the traded good sectors, just the ones supposed to be generating employment during the 1991-1994 expansion.

Table 7
Minimum and Industrial Wages
1980-1995

	Minimum Wage		**Industrial Wage**	
Year	**in US$**	**Index 1991=100**	**Nominal (in US$)**	**Real (index 1991=100)**
1980	169.3	184.6	597.8	124.4
1981	147.7	175.9	507.0	117.3
1982	81.1	178.6	249.8	107.7
1983	103.1	270.1	225.4	135.0
1984	140.4	318.8	366.4	165.5
1985	83.4	213.6	272.7	138.6
1986	93.3	202.7	319.5	137.6
1987	106.4	223.2	342.9	130.2
1988	85.8	174.3	306.3	123.0
1989	56.2	127.4	243.7	116.0
1990	47.5	53.1	384.8	112.2
1991	97.6	100.0	491.9	100.0
1992	97.8	83.2	561.7	94.7
1993	140.0	107.7	606.8	93.2
1994	200.1	148.6	363.4	93.8
1995	200.0	143.7	648.4	92.2

Source: Bour, J.L. op. cit.

The third factor that operated during the convertibility period is related to changes in labor market regulation, and particularly the introduction of incentives to nontraditional (fixed-term and part-time), more flexible employment contracts that attenuated some rigidities that hindered firms from hiring new workers,[10] at the same time that reduced the benefits (mainly social security benefits) received by those new workers.The most notorious consequence of this de-facto flexibilization was an increase in voluntary part-time employment and a reduction in the number of workers in full-time, full-benefit jobs.

[10] For a complete description of the system of incentives established since 1992, see *Políticas de empleo*, Informe Especial MTSS, Buenos Aires, July 1996.

Table 8
Contribution of Voluntary Part-Time and Full-Time Employment
to Full Employment Growth, 1987-1995

	LFP	EMPLOYED	PT	U	PT/EM
Oct 1986	4,086,931	n.a.	423,276	180,256	
Oct 1987 (End Austral)	4,184,233	3,163,300	481,038	213,525	13.2
Oct 1990 (End Hyperinfl.)	4,381,203	3,226,301	537,067	262,958	14.3
Oct 1991 (Menem I)	4,443,320	3,384,121	512,646	235,521	13.2
May 1995 (Convertibility)	5,001,543	2,777,846	661,601	1,011,720	19.2

(% anual)

	dLF/LF	dE/E	dPT/PT	dFT/FT	dU/U
Oct 1987 (End Austral)	2.38	n.a.	13.65	0.18	18.46
Oct 1990 (End Hyperinfl.)	1.55	0.09	3.74	0.87	7.19
Oct 1991 (Menem I)	1.42	6.78	(4.55)	3.18	(10.49)
May 1995 (Convertibility)	3.44	(8.35)	7.56	(2.94)	51.66

Source: Pessino, C., op. cit.
Notes: PT: refers to voluntary part-time workers, defined as those individuals working less than 35 hours a week not willing to work more hours.
FT: refers to full-time workers.

In Table 8, we decompose the growth of fully-employed workers in two components: those who are working full time and those who are (voluntarily) working part time. Between 1987 and 1990, a period of high macroeconomic volatility, part-time employment was growing much faster than full-time employment. In contrast, after the stabilization policy in 1991, the number of workers working full time fell precipitously while the number of workers under part-time contracts increased. The increase in the share of part-time employment in this group of workers suggests that changes in the regulatory framework may have had some influence in this phenomenon, even though the available information does not allow us to reach an unequivocal conclusion.

The combined results of the factors discussed above are: 1) a very large increase in the unemployment rate that began before the economic slowdown of 1995; 2) a large increase in the share of underemployment on total employment, and; 3) a reduction in the number of full-time, full-benefit jobs. Though our data does not allow us to track the effect of these three changes on welfare, we can produce a decomposition of the change in the unemployment rate by income level and household status that is quite revealing of how different socioeconomic groups reacted to these changes in labor market dynamics.

Using data from the Gran Buenos Aires Household Survey, we difice the population along per-capita income groups (5 quintiles, with 1 being the poorest) and household status (heads and non-heads of household). As this decomposition comprises the total economically active population (EAP), we can decompose the unemployment rate as:

$$UE_t - UE_{t-1} = \sum_{j=1}^{k} (UE_{i,t-1}(m_{i,t} - m_{i,t-1}) + m_{i,t-1}(UE_{it} - UE_{i,t-1}) + (UE_{it} - UE_{i,t-1})(m_{i,t} - m_{i,t-1})$$

where: *i* index over groups (quintiles and heads/nonheads of households) and *t* index over periods
UE: unemployment rate
m_i: share of group *i* in total EAP

The terms in the second equation above state that changes in the overall unemployment rate can be due to: 1) changes in the share of group *i* in the total EAP—reflecting changes in the group's participation rate—keeping the group's unemployment rate constant (the between effect); 2) changes in the unemployment rate of group *i* keeping the participation rate constant (the within effect), and; 3) interaction effects.

In Table 9, we present a decomposition of the changes in the unemployment rate. On the left hand side of the upper panel, we present the unemployment rate for each of the specific groups, while on the right hand side we present the share of each group on the total Economically Active Population. At the bottom of the upper panel, we present the total unemployment rate and its variation in the period. The lower panel describes the value of the "within," "between," and interaction effects for each group as a percentage of the total change in the unemployment rate.

It is worth noting that, expanding on our previous observation that changes in the overall participation rate were not the main factor behind the increase in unemployment, changes in the participation rate of different groups (that would show here as an increase of the share of that group on total EAP measured by the "between" effects) do not explain an important share of the change in the overall unemployment rate.

Table 9
A Decomposition of the Variation in the Unemployment Rate
by Household Head/Nonhead and Quintile

		Unemployment Rates by Group				**Participation in Total EAP**			
	Quintile	**UE 89**	**UE 91**	**UE93**	**UE95**	**m 89**	**m 91**	**m 93**	**m 95**
Nonhousehold Heads	1	26.3	25.7	31.2	51.8	6.24	5.71	7.94	9.91
	2	16.5	14.1	16.8	39.6	8.05	7.75	8.63	9.47
	3	9.1	6.8	11.5	29.0	8.37	9.52	11.76	11.43
	4	4.2	0.9	10.9	15.1	10.68	11.52	11.97	11.58
	5	2.6	2.2	5.2	8.7	10.37	9.96	10.27	9.54
Household Heads	1	12.4	4.5	15.8	26.0	11.17	10.48	9.16	9.78
	2	3.9	1.7	9.2	15.0	11.20	9.74	8.33	8.92
	3	4.2	2.9	6.3	8.0	8.78	10.23	9.76	8.47
	4	1.5	2.0	2.7	7.2	11.95	11.68	10.73	10.12
	5	1.2	1.1	2.4	3.7	13.19	13.40	11.45	10.77
					Sum of m	100.0	100.0	100.0	100.0
					UE rate	6.98	4.85	10.51	20.47
					Change in UE rate		(2.13)	5.66	9.96

		1989-1991			1991-1993			1993-1995		
Quintile		within	between	x prod.	within	between	x prod.	within	between	x prod.
Nonhousehold Heads	1	1.76	6.46	-0.15	5.55	10.10	2.16	**16.43**	6.19	4.09
	2	9.07	2.35	-0.34	3.69	2.18	0.42	**19.76**	1.42	1.93
	3	9.04	-4.92	1.24	7.90	2.69	1.86	**20.67**	-0.38	-0.58
	4	**16.54**	-1.65	1.30	**20.33**	0.07	0.80	5.05	-0.43	-0.16
	5	1.95	0.50	-0.08	5.28	0.12	0.16	3.61	-0.38	-0.26
Household Heads	1	**41.42**	3.99	-2.54	**20.91**	-1.05	-2.64	9.39	0.99	0.64
	2	**11.57**	2.67	-1.50	**12.90**	-0.42	-1.87	4.85	0.55	0.34
	3	5.36	-2.87	0.89	6.14	-0.24	-0.28	1.67	-0.82	-0.22
	4	-2.81	0.19	0.06	1.44	-0.33	-0.12	4.85	-0.17	-0.28
	5	0.62	-0.12	0.01	3.08	-0.38	-0.45	1.50	-0.16	-0.09
Total change		100.00			100.0			100.0		

Source: authors' calculation on information from INDEC's Household Surveys.

On the other hand, changes in the unemployment rate of some particular groups do explain a large fraction of the total change in the unemployment rate. During the first two periods, 1989-91 and 1991-93, more than 50 percent of the total variation in the unemployment rate is explained by changes in the unemployment rates of non-heads of households of the 4th. quintile, and of heads of households in the bottom 2 quintiles. Note that the pattern of change is the same, notwithstanding the fact that the unemployment rate is decreasing in the first period and increasing in the second. This pattern changes radically in the third period, 1993-95, when more than 50 percent of the change in the unemployment rate is explained by the increase in the unemployment rate of nonheads of household of the bottom 3 quintiles.

The implications of this "new" pattern of labor market adjustment for the evolution of poverty are double. On the one hand, at the lowest income levels, the income of secondary workers may be the factor that pulls the family out of extreme poverty. Therefore, increases in the unemployment rate of secondary workers in low income households produce the increase in extreme poverty that we observed in the first chapter. On the other hand, given that household heads are the main contributors to family income, the relative stability of their unemployment rate may explain why the simple poverty index is not increasing as fast as the indicators of extreme poverty, to the extent that only families with borderline income —those for which being our of extreme poverty depends crucially on the income of all its members— are pulled below the extreme poverty line by unemployment. Thus, the increase in unemployment is having a substantial damaging effect on the lowest income groups whose position had improved as a consequence of the economic expansion since 1991, even though it is not producing an overall expansion of poverty incidence.

In policy terms, what our analysis reveals is that public works-type of employment generation programs, a natural first reaction of governments under siege by a dramatic rise in unemployment, will have some effect in the poverty picture only if they are narrowly targeted to the poorest, not just the poor. They will not reduce the overall incidence of poverty, but will cushion groups whose subsistence capability is suffering dearly from the impact of increased unemployment.

On the other hand, and given that the increase in unemployment is rooted in a substantial change in relative prices produced by a policy that, in all terms, has been beneficial to the ability of the Argentine economy to grow in a sustainable way, reductions in the unemployment rate can only result from increases in the investment rate that allow the

absorption of the pool of unemployed workers under the new set of relative capital-labor prices. Instrumental to this, active labor market policies that increase the employability of the general population are essential to expand the productivity of the labor force and, therefore, counteract to some extent the detrimental effect of the increase in the relative price of labor on employment generation.

Conclusions on the Nature and Effects of Argentina's Adjustment

Argentina presents an economy with an urban employment structural problem. For many years its economy has been unable to find a sustainable growth strategy which would generate a sufficient number of urban jobs to absorb the entire labor force. Struggling with this difficult problem, successive governments adopted measures that created employment artificially. They caused the government to become bloated with employees providing expensive social services. Those measures also created a large block of state-owned enterprises, many of which became known as little more than disguised unemployment agencies. And they used their power over the levers of protection to subsidize a domestic manufacturing industry which would not otherwise have existed. This resulted in an unbalanced economy, whose main traded goods and exports were agricultural, and whose urban sector was able to provide sufficient jobs only through an unsustainable policy of rising fiscal deficits, foreign borrowing. Saving and investment were low, interest rates were high, and an increasing proportion of the deficit had to be financed by printing money.

Consider the record of the 1980s. At the beginning of that decade, Argentina was severely affected by a debt crisis. Output per capita fell by 20 percent between 1980 and 1982, and even by 1990 was still 16 percent below its 1980 level. Yet employment grew by over 21 percent over the decade and the minimum wage was held at or above its 1980 level all the way to 1989. It is impossible that an unprotected private sector could have produced that sort of result. Rather, it was achieved by the willingness of the government to hire those surplus workers and pay them good salaries with deficits that averaged over 10 percent of GDP between 1980 and 1990.[11] But after the debt crisis those deficits had to be financed increasingly by printing money. Ultimately, it came to be an unbearable situation. In 1989, it inevitably ended in a hyperinflation, a new government, and a forced adjustment.

The new government turned its back on the old model. It sold off state enterprises, reduced the deficit to less than 1 percent of GDP and, as a measure to restore credibility, fixed the exchange rate and pledged to back every peso with a dollar of hard currency reserves. Most important, it abandoned the ultimately futile attempt to guarantee a job for everyone by making the government the lender of last resort.

This adjustment put Argentina on a sustainable, non-inflationary growth path for the first time in decades. But the recovery produced no growth in employment. Indeed employment was no higher in 1994 than it had been in 1990, despite 30 percent growth in GDP. That, we have argued, was not a failure of the new economic model, but rather a reflection of the large amount of disguised unemployment that existed in 1990.

There are two important points to be made here regarding the Argentine adjustment. The first is a

[11] This figure is for the non-financial public sector. See data in IDB, *Economic and Social Progress Report*, various years.

question. Is the new model politically sustainable? Economically, the model appears to be sustainable. But so far the economy has not been capable of absorbing the unemployment that was generated by the shift away from the old paradigm of artificial employment creation. Unemployment rates of 12-20 percent are unlikely to be politically acceptable for long. The only way that the unemployed will be able to find jobs in the new model is through a rate of capital formation high enough to make Argentine enterprise competitive and to enable it to expand production and jobs. Investment has risen, but increasing productivity and capacity is a process that takes time. It is not clear that the unemployed or the middle class that are sliding into poverty will be willing to wait that long.

The second point is that the Argentine adjustment, unlike many others in the region, has been beneficial to the poor. We now know that hyperinflation is a heavy tax on the poor. The old development model artificially created millions of jobs and that favored the middle class. But it also created hyperinflation that hurt the poor. The adjustment was a shift from that employment paradigm to one that relied on market prices, an open economy, the private sector, and a government sector financed by tax receipts. It helped the poor simply because it stopped inflation and raised the real wage.

Adjustments to the debt crisis in the 1980s caused an increase in poverty in almost every case. Here, the adjustment was different. It was a shift away from an unsustainable model which led to hyperinflation. Such an adjustment was strongly beneficial to the poor, and is a pattern also found in other countries when they eliminated hyperinflation-causing government deficits. But despite the benefits to the poor, the larger question still remains of whether the country can tolerate high unemployment and the fall in middle class income during the transition to a sustainable high-employment growth path.

The Argentine economy is in the midst of a transition to a new equilibrium in which the private sector competes in an open economy, and it is also the source of most new jobs. There is no longer an employer of last resort, because that solution was shown to be unsustainable. It is too early to tell whether, in this new equilibrium, the economy will be able to provide jobs for all the currently unemployed. However, for that to happen, it is clear that faster growth, higher investment and more exports will be required. Also, since foreign capital inflows are so volatile, a greater domestic savings effort will be required as well.