# WAGES AND EMPLOYMENT IN INTERNATIONAL RECESSIONS: RECENT LATIN AMERICAN EXPERIENCE

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ABSTRACT

This paper examines the various economic policy responses of Latin American countries to the international recessions of the 1970s, particularly their impact upon wages and employment. It highlights the diversity of reactions by comparing the cases of small countries with relatively open economies, of medium and large-size economies, and of oil-exporting versus non-oil-exporting countries. The paper argues that despite significantly different conditions and different economic policies, adjustment policies cease to be neutral and tend to affect wages and employment more than other variables. It also explores the effects of the rise in international interest rates on the potential growth of the Latin American economies. Finally, it looks at the specific impact of economic adjustment policies on the labor market in Argentina, Chile, Venezuela, and Costa Rica.

RESUMEN

Este trabajo examina diversas políticas económicas desarrolladas como respuesta a la recesión internacional de la década del 70, en particular focaliza en los impactos de aquellas sobre salarios y ocupación. Se enfatiza la diversidad de las reacciones a través de las siguientes comparaciones: pequeños países con economías relativamente abiertas y países medianos y grandes, países exportadores de petroleo versus países no exportadores. El papel argumenta que, más allá de significativamente diferentes condiciones estructurales y diferencias en las políticas económicas, las políticas de ajuste no son neutrales y tienden a afectar salarios y niveles de ocupación más que a otras variables. También se exploran los efectos del alza de las tasas de interés internacionales sobre el potencial de crecimiento de las economías latinoamericanas. Finalmente, el trabajo observa el impacto específico de las políticas de ajuste económico en los mercados de trabajo en Argentina, Chile, Venezuela, y Costa Rica.

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## A. Introduction

Latin America and the Caribbean, as well as the rest of the world, have gone through several international crises during the last decade which have made it necessary to introduce adjustment policies in the economy. Adjustment is, of course, inevitable since it is necessary that the national economies adapt themselves to a reduced availability of real resources. Nevertheless, there is more than one possible adjustment policy and, given this diversity as well as varying modes of application, different results may be produced.

In the first place, as regards the period required to produce results, there is a difference between policies that affect the level of expenditure and policies that operate through changes in relative prices as the principal mechanism for shifting resources from the production of goods for domestic utilization to the production of tradeables. On the other hand, the trend in the reduction of domestic expenditure should be to concentrate on the level of consumption rather than on that of investment, so as to avoid adverse effects upon economic growth. At the same time, adjustment to the international recession has coincided with inflation in most Latin American and Caribbean countries, making it necessary to apply both adjustments simultaneously. The final result is that adjustment policies cease to be neutral and basically hit wages and the employment level: wages, because they are usually regarded as the key variable for stabilisation of the price level, to foster an improvement in international competitiveness and to induce the contraction of the level of consumption; the employment level, because a lower level of domestic expenditure generates a higher level of open unemployment.

The current world crisis as well as that suffered at the beginning of the 1970s is different from other international fluctuations to which the economies of the Region and the developing world have been historically subject. In fact, the size and depth of these recent crises affect not only developing countries but also those at the centre. In this connection, a comparison is increasingly being drawn between the present recessive conjunction and that experienced in the 1930s.

There are at least two important differences between the latter and the present recessionary situation. In the first place, given the crucial role currently played by the rise in oil prices, whether a country produces oil or not, establishes a first major differentiation between countries, irrespective of whether they are located in the north or in the south. In the Region, this differentiation can be clearly perceived in the dissimilar performance in the present crisis of the oil-exporting economies as compared with the rest of the continent.

In the second place, in contrast with the 30s, the present and previous international recessions have been accompanied by inflation in the developed world. This has at least two direct implications. On the one hand, the deterioration in the terms of trade of non-oil-exporting countries of the Region is at present greater than that observed in the 30s. The terms of trade of Latin American countries decreased at annual rates of 6.7 per cent between 1930 and 1933, whereas this deterioration attained a negative annual rate of 8.4 per cent in the 1974-75 crisis and of 9.6 per cent from 1978 to 1981 in the non-oil-exporting group. Even so, and perhaps because of the policy of relative expansion pursued in the developed countries in contrast with that of the 30 s, the decline in the purchasing power of the Region's exports has been less severe, and even in the current crisis the expansion of exports quantum has more than compensated for the fall in the terms of trade.

On the other hand, the policies pursued in the central countries and especially in the United States during the present recession have involved a considerable rise in nominal interest rates at a time when foreign indebtedness in the countries of the Region has increased significantly. The rise in nominal interest rates exceeds the rate of growth in export prices of non-oil-exporting Latin American countries, amounting between 1978 and 1981 to an increase of 47.5 per cent in the prime rate and of 32.6 per cent in the rate applicable to Euro-dollars, both in real terms.

The aim of this paper is to review the relationships between the aforesaid variables which summarise the effects of the international recession on the economy of the countries in the Region and the behaviour of wages and employment. To this end, special attention will be paid to the periods 1974-1975 and from 1979 to the present. On the basis of this review, different reactions of various countries of the Region to the international situation can be identified as well as the extent to which the latter has affected wages and employment. With this in view, and given the difficulties that would be involved in analysing all countries of the Region, a broad typology of situations will be made and illustrated by an analysis of some particular cases. The discussion, moreover, will necessarily be restricted since a comprehensive analysis of the adjustment process, given its macroeconomic character, would take us beyond the limited objectives of this paper.

We take as a working hypothesis that although the international recession necessarily entails adjustments that imply a relatively lower level of activity, there are various alternative options that in fact have been applied by different countries in the Region. These options are in part determined by the structural features of the economy but they also depend on the policy package that is applied. In this context, wage policy comes to play an important part in short-run adjustments and in effect determines the distribution of the costs involved in the adjustment among different groups of the population.

In addition, two other aspects will be dealt with. The first is the impact of the rise of the rate of interest on Latin American economies, since as mentioned above, this is a new and distinguishing factor of the present crisis. The second is the adjustment of the labour market because of its implications on incomes levels and its distribution.

## B. External adjustment and wages

### 1. The case of small and open countries

There is a first group of countries in the Region of small size which have a ratio of exports to gross national product fluctuating between 20 and 30 per cent. They had these same structural features already in the 30s and when faced with the international crisis at that time they had to remain tied to the gold standard while waiting for the automatic adjustment to operate. On that occasion, they suffered a considerable cost as a result of not being able to design policies that would attenuate the effect of the international crisis. The present situation seems to be basically the same. The full impact of world recessions falls upon these economies, which must inevitably absorb the deterioration in the terms of trade and reduce real wages whenever an international situation of this sort occurs.

Central America and the Caribbean provide numerous examples of this type of economy, where the possibility of an autonomous policy is slight. In particular, if we examine the performance of Costa Rica and Honduras in the 1973-75 crisis and in the present one, we can see that in both countries the fall in the terms of trade has brought with it a decline in real wages. Thus, in Honduras the first recession implied a loss of around 6.3 per cent in the rate of growth of output owing to the fall in the terms of trade and a reduction of 2.9 per cent in industrial-sector real wages during the same period. The present recession has meant up to 1981 a fall in the growth rate of output of around 8.2 per cent and of 8.1 per cent in industrial real wages (see Table 1).

In Costa Rica there are similar links between the negative effect of the terms of trade and the decrease in real wages during the two international crises. In this country there is also a further reduction in real wages stemming from an upsurge of inflation in an economy that had not previously experienced high inflation rates. The 1973-75 recession coincided with an inflation rate of 25 per cent, while in the present crisis the annual inflation rate averages 30 per cent during the last three years, and the rate for 1981 was 65 per cent.

Table 1

EXTERNAL ADJUSTMENT, WAGES AND PRICES IN SOME LATIN AMERICAN COUNTRIES

| | Terms of trade a/ | Degree of openness b/ | Effect on product c/ | Purchasing power of exports a/ | Wages a/ | | | Domestic prices d/ |
|---|---|---|---|---|---|---|---|---|
| | | | | | Urban minimum | Industrial | Construction | |
| **Group A: Oil-exporting countries** | | | | | | | | |
| Ecuador | | | | | | | | |
| 1973-75 | 36.3 | 18.1 | 6.6 | 16.5 | 9.3 | 7.3 | n.d | 17.1 |
| 1975-78 | 8.7 | 12.4 | 1.1 | 27.7 | -8.0 | 8.4 | n.d | 11.6 |
| 1978-81 | 31.1 | 11.4 | 3.6 | 28.1 | 111.3 | 22.9 | n.d | 13.7 |
| 1973-81 | 94.3 | 14.0 | 13.2 | 96.0 | 112.5 | 43.0 | n.d | 12.7 |
| Mexico | | | | | | | | |
| 1973-75 | 3.6 | 7.3 | 0.3 | 2.5 | 16.9 | 8.6 | 5.8 | 15.8 |
| 1975-78 | 12.2 | 7.0 | 0.8 | 82.3 | 7.9 | 8.0 | 9.1 | 21.3 |
| 1978-81 | 47.6 | 7.4 | 3.5 | 140.6 | -8.4 | -1.7 | 1.6 | 26.1 |
| 1973-81 | 71.5 | 7.2 | 5.1 | 349.8 | 15.6 | 14.0 | 17.3 | 21.7 |
| Venezuela | | | | | | | | |
| 1973-75 | 97.6 | 14.3 | 14.0 | 30.3 | -9.3 | 13.1 | n.d | 9.8 |
| 1975-78 | -13.9 | 9.5 | -1.3 | -20.4 | -19.6 | 2.1 | n.d | 7.3 |
| 1978-81 | 114.2 | 8.1 | 9.3 | 77.2 | 17.7 | -1.1 | -5.2 | 17.8 |
| 1973-81 | 264.4 | 10.6 | 28.0 | 102.3 | -14.2 | 14.2 | n.d | 11.8 |
| **Group B: Medium-sized and large countries** | | | | | | | | |
| 1. Oil-dependent | | | | | | | | |
| Brazil | | | | | | | | |
| 1973-75 | -21.2 | 6.9 | -1.5 | 14.7 | -2.3 | 12.1 | 6.9 | 32.5 |
| 1975-78 | 2.6 | 6.2 | 0.2 | 24.7 | 3.5 | 13.3 | 12.0 | 42.0 |
| 1978-81 | -42.7 | 7.0 | -3.0 | 6.3 | 1.1 | 8.1 | -1.9 | 87.3 |
| 1973-81 | -53.7 | 6.5 | -3.5 | 16.0 | 2.3 | 37.3 | 17.4 | 54.8 |
| 2. Relatively self-sufficient | | | | | | | | |
| a) With substantial economic policy changes | | | | | | | | |
| Argentina | | | | | | | | |
| 1973-75 | -30.0 | 5.5 | -1.7 | -45.9 | -8.9 | 1.7 | 33.3 | 173.8 |
| 1975-78 | -19.2 | 9.2 | -1.8 | 87.2 | -50.4 | -54.9 | -55.9 | 211.5 |
| 1978-81 | -8.4 | 8.1 | -0.7 | -3.3 | 6.3 | 14.7 | 3.2 | 118.2 |
| 1973-81 | -48.2 | 7.5 | -3.6 | 24.0 | -52.0 | -20.6 | -43.1 | 163.9 |
| Chile | | | | | | | | |
| 1970-75 | -46.8 | 15.3 | -7.2 | -28.7 | -41.1 | -41.8 | -18.3 | 233.1 |
| 1975-78 | -0.6 | 21.2 | -0.1 | 27.1 | 29.9 | 44.3 | 4.2 | 80.1 |
| 1978-81 | -14.0 | 24.6 | -3.4 | 13.7 | -1.5 | 38.0 | 27.0 | 25.9 |
| 1970-81 | -57.2 | 20.4 | -11.7 | 3.0 | -24.7 | 15.9 | 8.1 | 98.9 |
| b) Without substantial economic policy changes | | | | | | | | |
| Colombia | | | | | | | | |
| 1973-75 | -19.9 | 14.8 | -2.9 | 0.4 | 16.4 | -8.0 | 7.3 | 22.3 |
| 1975-78 | 64.7 | 7.4 | 4.8 | 51.7 | 9.4 | 13.3 | 5.1 | 24.2 |
| 1978-81 | -32.4 | 6.9 | -2.2 | -23.8 | 17.6 | 7.2 | 17.6 | 27.7 |
| 1973-81 | -7.4 | 9.7 | -0.7 | 16.1 | 49.7 | 11.7 | 32.6 | 25.0 |
| **Group C: Small open countries** | | | | | | | | |
| Costa Rica | | | | | | | | |
| 1973-75 | -9.2 | 27.6 | -2.5 | -7.1 | -7.4 | -9.0 | -6.1 | 25.4 |
| 1975-78 | 40.1 | 21.2 | 8.5 | 55.2 | 25.3 | 31.3 | 34.9 | 5.9 |
| 1978-81 | -29.2 | 21.8 | -6.4 | -10.5 | -8.3 | -12.2 | -11.2 | 30.1 |
| 1973-81 | -9.8 | 23.5 | -2.3 | 29.7 | 6.3 | 4.9 | 12.7 | 19.3 |
| Honduras | | | | | | | | |
| 1973-75 | -23.1 | 27.1 | -6.3 | -20.2 | -7.2 | -2.9 | -31.9 | 10.4 |
| 1975-78 | 23.3 | 24.1 | 5.6 | 60.5 | -15.6 | 12.0 | 77.5 | 6.2 |
| 1978-81 | -23.7 | 27.1 | -8.2 | -1.0 | -6.2 | -8.1 | -24.4 | 14.3 |
| 1973-81 | -27.6 | 26.1 | -7.2 | 32.2 | -26.5 | 0.0 | -8.6 | 10.2 |

Source: Elaborated by PREALC on the basis of national data.

a/ Changes between the initial and final year of each period.
b/ Relation between exports and gross domestic product.
c/ Obtained by multiplying the change in the terms of trade by the coefficient of openness.
d/ Annual cumulative rates referring to changes December to December.

## 2. The case of medium-sized and large countries

Already in the recession of the 30s and to a greater extent in more recent international crises, other countries of the Region have displayed a certain degree of autonomy which enables them to reduce to a certain extent the magnitude and control the impact of international crises. This group of countries comprises those of a larger size, generally less open to international trade and with a higher degree of urbanisation and modernisation. Hence, exports hardly exceed ten per cent of the product, the proportion of modern urban activities in employment reaches between 50 and 60 per cent of the total labour force and employment in modern industry comprises between 20 and 28 per cent of the non-agricultural labour force. It is precisely in this group of countries that wages come to be a representative variable, given the greater coverage of wage-labour as a direct result of the higher degree of modernisation. Included in this group are the Southern Cone countries (Argentina, Chile and Uruguay), Brazil, Colombia, Mexico and Venezuela, among others.

To begin with, it is convenient to review the performance of these countries in the crisis of the 30s and the policies they applied [1/]. In the first place, those Latin American countries that enjoyed some degree of autonomy went through the crisis of the 30s at lower costs than other countries of the Region and even than the United States and Canada. In general, they grew more rapidly than these two countries in the period following the crisis (1932-1939); they recovered sooner in 1932; their contraction was not so pronounced as in North America; and manufacturing industry, which became the leading sector in these economies, grew steadily at an annual rate between eight and 13 per cent whereas in the United States the manufacturing sector remained stagnant.

The policies pursued by this group of countries during the 30 were characteristically heterodox, in defiance of the conventional prescriptions of monetarist experts at the time ("money doctors", according to Carlos Díaz-Alejandro). Concerning the balance of payments, there were exchange rate devaluations and multiple-exchange systems were established with a higher rate for imports, a medium rate for exports, and a preferential rate for servicing the external debt. Likewise, most of these countries renegotiated their debt unilaterally, with only Argentina, Haiti and the Dominican Republic continuing to service the debt on its original terms. The effect of devaluation was not inflationary and helped to increase competitiveness through a change in the relation between the exchange rate and wages, basically through an increase in the former since the latter remained stable in real terms. These measures were accompanied by exchange controls and tariff adjustments that raised the level of protection.

The monetary and fiscal policies applied at that time had a clear expansionary effect. Real money supply increased, basically owing to the decline of nominal prices and the stock of money was increased against bonds and independently of the gold standard that had been in force up to that time. In several countries, a moratorium on the internal debt was declared and financial institutions were supported to prevent bankruptcy by means of diverse measures ranging from special rediscount lines to, in some cases, the freezing of savings deposits. Fiscal policy acquired distinct anticyclical features without any attempt to balance the budget and maintaining a deficit basically financed by delays in payments and an increase in short-term borrowing. Likewise, public expenditure increased, thus avoiding a contraction of economic activity.

Finally, the combined effect of these measures was to produce a far-reaching structural transformation which characterises the economies of these countries up to the present. This transformation basically consisted of a rapid expansion of the manufacturing sector together with a higher degree of State intervention in economic activity.

At present, the group of countries that already enjoyed some autonomy in the 30s have begun to develop differences owing chiefly to the different impact of oil prices in the more recent international crises. Hence, a distinction must be made among oil-exporting countries, those which are largely dependent on imported fuel and those which have some degree of autonomy owing to their being relatively self-sufficient. Ecuador, Mexico and

Venezuela are among the oil-exporting countries; Brazil, in particular, is heavily dependent on fuel imports; and, finally, in the group of countries relatively self-sufficient a distinction must be made between those which in the past decade have applied structural policies of price stabilisation and external openness (basically, those of the Southern Cone) and those which have pursued more conventional policies, such as Colombia.

3. Oil-exporting countries

These countries benefited from the rise in the price of oil, which caused a remarkable improvement in their terms of trade combined in some cases such as Mexico, with a considerable expansion in the export volume of this product. This was particularly the case of Ecuador, Mexico and Venezuela, which were able to apply a policy of real wage increases owing to the favourable international situation. Hence, a high correlation between the rise in the terms of trade and increases in real wages results (see Table 1).

However, there was a growing tendency in these countries to overexpand domestic expenditure and to increase the money supply as a result of the aforesaid oil boom, resulting in accelerated inflation and/or balance-of-payments problems. These results can be judged paradoxical since these economies had historically exhibited low rates of inflation and, moreover, combined their greatest boom in recent decades with the emergence of a balance-of-payments deficit. They were compelled thus to resort to adjustment policies involving a reduction of expenditure and wage controls, as in Mexico and Venezuela since 1979. As a result, real wages tended to contract despite the improvement in the terms of trade.

In effect, although during the whole period 1973-1981 wages benefited from the oil boom, their improvement diminished owing to the aforesaid internal disequilibria and the nature of the policies applied. This was particularly reflected in the acceleration of inflation in economies having little previous experience and, hence, lacking systems of wage indexation. Thus, in Venezuela between 1973 and 1981, despite an expansion in output on the order of 28 per cent attributable to improvements in the terms of trade, real wages in the industrial sector increased by only 14 per cent during the same period.

4. Non-oil-exporting countries

a) Countries dependent on oil imports

By far, the most important country in this group is Brazil, an economy relatively autonomous in the design of economic policy but heavily dependent on oil imports. This country made active use of its possibilities to increase the external debt in order to cushion the economy from the recessionary impact associated with a pronounced fall in its terms of trade.

As a result of these policies, during 1974-75 Brazil was able to raise industrial real wages by around 12 per cent, despite the fact that the terms of trade fell by approximately 21 per cent.

Even so, in face of a further fall in its terms of trade from 1978 onwards, the growth in real wages has considerably decelerated (see Table 1).

It is clear that Brazil gradually lost flexibility in the management of international crises in both the emergence of internal imbalances chiefly observable in the inflationary up-surge of recent years and the greater cost associated with the increase in real interest rates, given its high degree of indebtedness. Thus, if the growth in the nominal interest rate applied by commercial banks to best customers (prime rate) and in that applied to short-term deposits in Euro-dollars is compared with the growth in the price of Brazilian exports, it will be seen that the former rose during 1978-81 by 59 per cent and the latter by 43 per cent, both in real terms. Given that 86 per cent of Brazil's external debt has been contracted at variable interest rates and that it constitutes around 30 per cent of gross national product, and taking into account that the rate prevailing in 1978 was around ten per cent, it can be estimated that the rise in international interest rates has produced a deterioration of around 1.3 per cent in output. This decline in output is equivalent to around 43 per cent of the deterioration in output attributable to the fall in the terms of trade during the period 1978-81.

Nevertheless, despite the unfavourable situation confronted by Brazil, the analysis of the period 1973-1981 shows that, although it had to face a deterioration in the terms of trade that implied a decrease in the rate of growth of output of around 3.5 per cent, domestic policies were applied that not only protected wages from this reduction, but also permitted a rise of around 37 per cent in the average real wage paid in the industrial sector. This is undoubtedly a clear illustration of policies capable of coping with the international recession without shifting the full burden of the adjustment on to wages and which, on the contrary, allowed their expansion in spite of the adverse conditions faced in the international market.

b) Countries not dependent on oil

i) Countries without substantial changes in economic policy

A case that illustrates this type of situation is Colombia. Its terms of trade were adversely affected both in the 1973-75 crisis and in that beginning in 1978. Notwithstanding the negative impact of the international situation, the economic policies adopted fostered an expansion in the *quantum* of exports and thus neutralised the adverse effect of international prices and permitted a significant rise in real wages during the period. Thus, in face of a potential decline in output of around one per cent between 1973 and 1981 that can be attributed to the decline in the terms of trade, urban minimum wages rose by 50 per cent, industrial wages by 12 per cent and those in construction by 33 per cent, all in real terms during the same period (see Table 1).

ii) Countries with substantial changes in economic policy

This group includes Argentina, Chile and Uruguay[2], which during the decade pursued policies of price stabilisation and external openness in their economies. It is outside the objectives of this paper to comment here on these policies or on their main effects[3]. We shall concentrate instead on the degree of autonomy regarding the management of this domestic economic policy and on the consequences of the policies adopted.

First, the fact that these countries possess some degree of autonomy in their economic-policy decisions and are not entirely subject to international fluctuations is clearly illustrated by the case of Argentina which during the 1973-1975 crisis succeeded in raising wages in real terms despite a deterioration in its terms of trade of around 30 per cent. Similarly, Chile in the recession beginning in 1978 succeeded in preventing the deterioration in the terms of trade to be transferred to wages. It should be noted in the latter case that the increase in real wages during the recent period is largely due to the slowdown in the inflation rate, which in an indexed economy automatically amounts to a rise in real wages.

Secondly, wages became a basic variable in the economic and social policies adopted by these countries. Wage control was a basic policy instrument in the effort to achieve price stabilisation and an improvement in international competitiveness, especially during periods when fixed exchange-rate policies were applied or, more, generally, an overvaluation of the local currency with a view to achieving, by way of reducing wages, a shift of resources towards the production of tradeables. Wage control was also used as a social objective in disciplining the labour force, since in both countries the governments sought to avoid pressures that might challenge the economic and political decisions being applied. In particular, this economic strategy resulted in a disarticulation of the trade-union movement basically caused by an anti-industrial and anti-occupational bias introduced by the policy [4/]. This enabled effective reductions in real wages without major resistance arising within the system.

The result of these policies was a reduction in wages that apparently exceeded the cost that would have been involved in absorbing the deterioration of the terms of trade. Thus, in Argentina between 1973 and 1981 the decline in the terms of trade implied a reduction in the growth rate of output of around 3.6 per cent but wages in the industrial sector fell during that period by around 21 per cent. In Chile between 1970 and 1975, the negative effect of the terms of trade implied a fall in output of around seven per cent, but industrial wages contracted by over 41 per cent (see Table 1).

To summarise the analysis of this section, the experience of different countries in the Region suggests that, although in the face of adverse international developments the countries have no option other than to adjust their economies and that this adjustment implies adopting wage policies that result in a fall of real wages, this has automatically occurred only in a small group of countries which because of their size and degree of openness do not possess the autonomy to alter this result. There are, however, numerous countries in the Region that have in the past shown a certain degree of autonomy to control the domestic adjustment to international recessions, by means of influencing the distribution of the cost of adjustment, the period during which it is applied and, finally, the different mechanisms through which the national economies adjust to the external crises. Experience also shows that some countries have succeeded in applying an expansive wage policy under circumstances of adverse international conditions, just as others have accentuated the cost of adjustment by introducing substantial changes in their economic policies at the same time. Finally, the oil-exporting countries are a special case in which, although it is possible in principle (and so it has been done) to transfer the international bonanza to real wage increases, internal and sometimes external imbalances arise that eventually limit this possibility, and wages actually expand less that would have been theoretically feasible.

C. The increase in international interest rates

The present world recession differs from earlier ones in that it has not only produced a major fall in the Region's terms of trade but also has been accompanied by a rise in the interest rate applicable to servicing the external debt. Thus, between 1978 and 1981 the rate applicable to best debtors by North American banks (prime rate) rose by 72.3 per cent and the rate applicable to short-term deposits in Euro-dollars rose by 54.9 per cent. The trend during the first half of 1982 indicates still higher levels than those prevailing towards the end of last year.

This considerable increase in nominal interest rates entails an additional outflow of financial resources for the countries of the Region. It has been estimated that in 1981 each additional percentage point in the nominal interest rate implied an increase in interest payments of 2.25 billion dollars for the Region as a whole. This amount is equivalent to 2.6 per cent of the value of Latin America's exports of goods, reaching in some particular countries like Mexico a proportion of 3.3 per cent, and in Argentina and Brazil, around three per cent of yearly export revenues.

To assess the pressure on resources implied by the increase in the nominal interest rate, this should be related to the evolution of export prices in the Region during the same period. When this comparison is made, the situation becomes diversified according to the particular features of each country. In the Region's oil-exporting economies, export prices grew faster than the increase in the nominal interest rate during the period and the variation in the real interest rate has consequently been negative. In the remaining countries of the Region, the effect of the change in the real interest rate affects differently output growth according to the evolution of exports prices, the proportion of the external debt as a percentage of gross national product and the part of the debt contracted at variable interest rates.

First, in some countries the rise in nominal interest rates combined with a fall in export prices at the same time that the external debt amounted to a high percentage of gross national product. This is typically the case of Central American economies, among them Costa Rica and Honduras. As a result of the rise in real interest rates (as defined above) the possibility of growth diminished by two per cent in Costa Rica and in Honduras, by 1.6 per cent during the period 1978-81 [5/] (see Table 2). Secondly, there is another group of countries where the rise in nominal interest rates combined with virtually stationary export prices and where the percentage of the external debt in national product is around 25 per cent but is largely contracted at variable interest rates. In this group we find Brazil and Colombia, where the effect of a potential loss in output growth is around one per cent during the same period. Finally, we have a group of countries in which the increase in nominal interest rates was largely offset by an improvement in export prices, but which however exhibit a high coefficient of the external debt as a percentage of the national product. This coefficient is around 40 per cent, of which around 80 per cent has been contracted at variable interest rates. This is the case of Argentina and Chile, with a potential loss in output of 0.4 per cent in the former and of 0.7 per cent in the latter.

On the other hand, to gain an approximate idea of the effect of the rise in real interest rates in relation to that attributable to the deterioration of the terms of trade, it is convenient to relate both effects to the potential growth of national product. This shows that the size of the effect associated with real interest rates during the period 1978-81 varies among different countries between 19 and 56 per cent of the terms-of-trade effect. In one extreme we find Argentina and Colombia, where the real interest-rate effect is around 50 per cent of that linked with the terms of trade. We next have an intermediate group including Brazil and Costa Rica, where the effect of the former is around 30 per cent of the latter and, in the third place, in countries like Chile and Honduras the same relation is around 20 per cent (see Table 2).

Table 2

EFFECT OF THE CHANGE IN INTERNATIONAL INTEREST RATES, 1978-81

| | $\frac{i_1}{\dot{p}_x}$ | $\frac{i_2}{\dot{p}_x}$ | $\frac{i_1}{\dot{p}i/tc}$ | $\frac{i_2}{\dot{p}i/tc}$ | Percentage of the external debt: In national product a/ | Percentage of the external debt: Subject to variable interest rates b/ | Effect on potential output growth due to interest rates c/ | Relation of the effects on output growth due to interest rates and terms of trade d/ |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Argentina | 5.9 | 17.8 | -57.3 | -47.5 | 41.1 | 80.0 | -0.39 | 56.0 |
| Brazil | 42.9 | 58.9 | 26.1 | 40.3 | 24.9 | 84.0 | -1.07 | 36.0 |
| Chile | 22.1 | 35.8 | -14.4 | -4.8 | 35.6 | 65.6 | -0.68 | 20.0 |
| Colombia | 68.1 | 86.9 | 7.2 | 19.2 | 22.8 | 58.3 | -1.03 | 46.8 |
| Costa Rica | 56.0 | 73.6 | 99.4 | 125.5 | 49.3 | 62.4 | -1.99 | 31.1 |
| Honduras | 49.9 | 66.7 | 8.0 | 20.2 | 59.6 | 45.8 | -1.59 | 19.4 |

Source: Elaborated by PREALC on the basis of information from the countries.

$i_1$ = variation in the interest rate in Euro-dollars at 90 days.

$i_2$ = variation in the prime interest rate.

$\dot{p}_x$ = changes in exports prices.

$\dot{p}_i$ = changes in domestic prices.

$t_c$ = changes in the exchange rate.

a/ Refers to 1980.

b/ Refers to the average for the period 1978-80.

c/ Calculated by applying the mean variation in the real interest rate (1) and (2) to the percentage of the debt over product (5) adjusted by the percentage of the debt subject to variable interest rates.

d/ Relation between (7) and the effect of loss due to the terms of trade estimated in Table 1.

Lastly, it should be noted that the most significant change in the structure of the Region's external debt in recent years is an increase in the proportion of private funds in the total, both as regards their origin and their destination. There is in particular a considerable increase in the proportion of private sector credits without public sector guarantee. This has brought about a change in the characteristics of external indebtedness, which is increasingly contracted at variable interest rates, reaching 85 per cent of the total by 1981, thereby making the economies more vulnerable to the variations of interest rates in the international markets.

From a distributive viewpoint, the effect of the rise in the international nominal interest rates should be related to the evolution of those particular prices which are relevant to national private lenders. For them, the relevant prices are given by the changes in domestic prices in relation to the changes in the exchange rate. From this comparison, it will be seen below that the effect of the rise in nominal interest rates has not in general been passed on to the national private lenders, since most of the countries in the Region exhibit either a fixed-exchange rate with increases in domestic prices or exchange-rate depreciation lagging behind domestic inflation.

A clear example of fixed exchange rates with domestic inflation are the oil-exporting countries, especially Mexico and Venezuela, together with small and open economies such as Honduras, which also maintained a fixed exchange rate against positive variations in domestic prices. From the standpoint of those who incur debts in dollars, this results in a negative real interest rate. The same occurs in Argentina and Chile since during this period both countries applied stabilization policies which made use either of a fixed exchange rate or lagging devaluation as instruments for reducing inflationary pressures. In these two cases, the real interest rate for dollar debtors is also negative. In Brazil and Colombia, where lags in foreign-exchange depreciation are also found but to a lesser degree than in the countries mentioned before, the effect was to reduce the increase in the real interest rate by about a half in Brazil and by one ninth in Colombia. Lastly, there are countries such as Costa Rica, where the rise in the nominal interest rate is combined with an appreciation in real terms of the exchange rate, resulting in a positive real interest rate that is higher for the private debtor than for the country as a whole.

In sum, it is clear that the rise in the international nominal interest rate which has recently occurred amounts to an additional substantial burden for the countries of the Region, which at the same time are forced to adjust their economies to a recessionary situation. Nevertheless, on analysing the effect of the rise of interest rates in real terms, the situation of particular countries is found to differ according to the evolution of its exports prices, the weight of the debt in relation to national product and the proportion of the debt subject to variable interest rates. Finally, the actual incidence of the increase in nominal interest rates upon the national private sector depends on the exchange policy applied in each country and on the evolution of domestic prices, the result being in most cases a lesser burden than that determined by the variation in the interest rate in the international financial markets, and even in some countries the transformation of this burden into a subsidy.

## D. Economic adjustment and the labour market

As they assume that open unemployment is determined by high wages, conventional adjustment policies pursue the decrease of real wages as a way to equilibrate the labour market. This line of argument can be questioned on theoretical grounds but we will restrict ourselves to discuss its empirical validity in the case of Latin America.

In analysing the variation in wages (whether the urban minimum, those in manufacturing or in construction) in relation to the changes in open unemployment during two periods of the last decade, the results clearly show that no such relationship exists. The information for 12 Latin American countries in the periods 1975-78 and 1978-81, selected because of the different international situation prevailing in each one, clearly confirms this (see Table 3).

Thus, during the first period only in one country (Venezuela) was the fall in urban minimum wages accompanied by a significant decrease in the rate of open unemployment. But even in this case the same relationship does not hold in connection with the change in industrial wages. Moreover, there is no country where an increase in real wages is seen to be associated with a significant rise (over one percentage point) in open unemployment. On the contrary, in six out of the 12 countries considered we find the opposite association, that is, increases in real wages accompanied by significant decreases in the open-unemployment rate or decreases in the former together with a significant rise in open unemployment.

In the period 1978-1981 only two countries show a simultaneous fall in real wages and in open unemployment when both urban minimum wages and industrial wages are considered. Similarly, when sorting out movements in the same direction (i.e., increases in real wages together with increases in open unemployment) the number of cases is three for the urban minimum while there is no significant case in relation with wages in industry and construction. On the other hand, we have a greater number of countries showing opposite movements in real wages and the rate of open unemployment, whatever the wage being considered.

Table 3

REAL WAGES, ACTIVITY LEVEL AND OPEN UNEMPLOYMENT

| | 1975–78 | | | | | 1978–81 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Growth of product a/ | Changes in wages b/ | | | Changes in open unemployment c/ | Growth of product a/ | Changes in wages b/ | | | Changes in open unemployment c/ |
| | | $w_m$ | $w_i$ | $w_c$ | | | $w_m$ | $w_i$ | $w_c$ | |
| Argentina | 1.6 | -50.4 | -54.9 | -55.9 | 0.2 | 0.2 | 8.9 | 19.9 | - | 0.7 d/ |
| Brazil | 6.6 | 3.5 | 13.[illegible] | 12.0 | 0.6 | 3.5 | -10.2 | -6.3 | -15.5 | 1.7 e/ |
| Colombia | 6.1 | 9.4 | 13.3 | 5.1 | -2.0 | 4.1 | 20.3 | 7.4 | 14.3 | -0.8 |
| Costa Rica | 6.9 | 25.3 | 31.3 | 34.9 | 0.4 | 0.6 | 1.8 | 0.7 | 1.4 | 3.3 |
| Chile | 7.2 | 30.0 | 20.6 | 44.4 | -1.7 | 6.7 | -0.6 | 18.1 | 23.6 | -4.3 |
| Jamaica | -2.1 | -17.2 f/ | | | 4.0 | -3.8 d/ | -12.0 f/ | | | 5.0 d/ |
| Mexico | 6.6 | 7.9 | 8.0 | - | -0.3 | 8.5 | -9.0 | -5.7 | - | -2.4 |
| Panama | 3.6 | -11.7 | - | -11.7 | 1.0 | 5.0 | 2.1 | - | -2.5 | 2.0 g/ |
| Peru | 0.5 | -32.0 | -27.4 | -38.6 | 0.5 | 3.9 | 13.8 | 2.6 | 2.6 | -1.2 |
| Trinidad & Tobago | 9.9 | 8.8 f/ | | | -1.7 | 4.9 d/ | 5.1 d/ | | | 1.8 d/ |
| Uruguay | 4.1 | -16.8 | -26.3 | -25.9 | 1.6 | 4.1 | -15.1 | -15.0 | -13.6 | -3.4 |
| Venezuela | 6.1 | -19.6 | 2.1 | - | -3.2 | -0.1 | -3.0 | -12.8 | - | 1.9 |

Source: PREALC figures on the basis of information from the countries.

a/ Annual growth rates.

b/ $w_m$ : urban minimum wages.

$w_i$ : manufacturing-industry wages.

$w_c$ : wages in construction. Percentage variation during the period.

c/ Changes in percentage points between the first and the last years.

d/ Refers to 1978–1980.

e/ Preliminary estimation.

f/ Refers to total wages.

g/ Refers to 1978–79.

The evident incapacity of changes in the real wage to account for changes in open unemployment, and indeed the appearance of considerable evidence to the contrary, leads to investigate the likelihood of other determinant factors. In particular, changes in the level of economic activity can induce variations in the open-unemployment rates. This is based not only on an important current of theoretical interpretation but also the available evidence for short-term variations seems to suggest the existence of a high correlation of this sort. On relating information on the growth of gross domestic product with changes in the rate of open unemployment (see Table 3), it is observed that in the period 1975-78, in five of the 12 countries for which information is available, there is a positive correlation between accelerated growth and decreases in the unemployment rate, or between a contraction in the product and an increase in the unemployment rate. Again, in the period 1978-81, in five of the 12 countries considered this relationship holds. It is then clear that there is in the short run an appreciable degree of correlation between the level of economic activity and the rate of open unemployment, though in some cases a high growth rate is associated with a constant unemployment rate.

In order to verify this association quantitatively, some simple econometric exercises were carried out. First, an analysis of simple correlation between changes in the open-unemployment rate and the rate of growth of product or of wages (urban minimum, industrial and in construction) was made. Secondly, multiple regression was tried in an attempt to analyse the causal impact of the growth rate of the product and changes in real wages upon variations in open unemployment, introducing different definitions in respect of wages. The results can be seen in Table 4. They corroborate the conclusions reached in the analysis of the previous table, in the sense that whatever definition is used, real-wages changes have little effect on the variations of the open-unemployment rate, with coefficients in general not significant. On the contrary, variations in the level of activity clearly influence the level of open unemployment and the coefficients obtained, whether by simple correlation or multiple regression, are always significant.

The data suggest then that the open-unemployment rate appears to be more responsive to changes in the activity level than to variations in real wages. Even so, the attempt to explain changes in the labour market through the mere observation of variations in open unemployment is indeed limited for economies like those of the Region where there is a significant amount of underemployment. Adjustment in heterogeneous labour markets may take various forms: changes in open unemployment, variations in underemployment or a combination of both. Let us illustrate the reaction of the labour market to a recessionary conjuncture in four Latin American countries presenting different conditions.

Table 4

CHANGES IN OPEN UNEMPLOYMENT AND THEIR POSSIBLE DETERMINANTS

| | Constant | Changes in activity level a/ | Changes in real wages b/ | $R^2$ |
|---|---|---|---|---|
| Subperiod 1975–78 c/ | | | | |
| Equation 1 | 2.88633 | −0.57945 (−3.40988)* | 0.03423 (1.41288) | 0.60273 |
| Equation 2 | 0.79168 | −0.24174 (−0.46913) | −0.11179 (−0.02459) | 0.16458 |
| Equation 3 | 0.04078 | −0.77355 (−0.01496) | −0.01619 (−0.43274) | 0.21569 |
| Equation 4 | 4.75109 | −0.18935 | | 0.31080 |
| Equation 5 | −5.41725 | | −3.67836 | 0.29916 |
| Equation 6 | −5.10346 | | −6.64900 | 0.36598 |
| Subperiod 1978–81 c/ | | | | |
| Equation 1 | 2.25356 | −0.62411 (−3.41731)* | 0.01137 (0.20000) | 0.56503 |
| Equation 2 | 1.87016 | −0.69292 (−3.37861)* | −0.02299 (−0.47701) | 0.66087 |
| Equation 3 | 3.67456 | −1.03945 (−1.77369) | −0.01178 (−0.15435) | 0.50647 |
| Equation 4 | 3.40546 | −0.90710 | | 0.75039 |
| Equation 5 | 1.31256 | | 0.01373 | 0.37023 |
| Equation 6 | 0.63197 | | −0.61773 | 0.12523 |

Source: Table 3.

a/ Defined as the annual cumulative rate of growth of gross domestic product.

b/ Equation 1: includes urban minimum wages; equation 2: includes industrial wages; equation 3: includes wages in construction; equation 5: includes urban minimum wages; equation 6: includes industrial wages.

c/ In all the equations the dependent variable is the changes in percentage points in open unemployment and the figures in brackets indicate the T test.

* Significant.

For this purpose, we chose Argentina in the period 1974-1980, Chile during the past decade and Venezuela and Costa Rica since 1978. The first two cases were selected because they combined external adjustment with deep changes in economic policy, mainly directed to achieve price stabilisation and a higher degree of openness. The third case illustrates the experience of an oil-exporting country combining an oil boom with economic policies aimed at correcting some internal disequilibria which were observable in an inflationary upsurge compared with previous historical patterns. The last country illustrates the small open economy case facing balance of payments problems with inflationary pressures.

As can be seen in Table 5, the four cases present common features. On one hand, the rate of growth of product is low, and even negative in Venezuela. On the other hand, these economies exhibit, though in differing degrees, inflationary problems. In Costa Rica and Venezuela, although price increases might be considered relatively moderate, annual rates were recently four and even five times as high as the historic inflation rate. Finally, during the periods under analysis, real wages declined in all four cases. These common features reflect similar decisions of economic policy designed to control domestic demand and wages with a view to reducing price increases.

Table 5

THREE TYPES OF LABOUR MARKET ADJUSTMENT

| | Annual rate of growth of product | Annual rate of growth of prices | Variation in real wages a/ | Changes in b/ Open un-employment | Share of urban in-formal sector | Non-agri-cultural EAP | Ratio of in-comes in the informal sec-tor to modern sector c/ |
|---|---|---|---|---|---|---|---|
| Case 1 | | | | | | | |
| Argentina (1974-80) | 1.9 | 156.3 | -46.9 | -0.3 | 4.0 | 0.6 | 1.03 |
| Case 2 | | | | | | | |
| Venezuela (1978-81) | -0.6 | 16.9 | -6.7 | 15.7 | 6.4 | 4.5 | 0.86 |
| Case 3 | | | | | | | |
| Chile (1970/1-80) | 2.7 | 79.1 | -21.4 | 14.5 d/ | 0.1 | 2.7 | 0.73-0.80 |
| Case 4 | | | | | | | |
| Costa Rica (1978-81) | 0.6 | 30.1 | -11.2 | 30.1 | 5.0 | 5.6 | 0.71 |

Source: Elaborated by PREALC on the basis of national statistics.

a/ Wages in the manufacturing industry.
b/ Refers to annual cumulative rates.
c/ As incomes disaggregated by these sectors are difficult to obtain, proxy variables were used depending on data availability. Argentina: ratio of incomes of non-professional self-employed to wage earners. Venezuela: ratio of income of non-professional self-employed and employees in establishments of less than 5 employees to non-professional wage earners in the modern sector. Chile: ratio of incomes of self-employed with less than 12 years of education and employers with establishments of less than 5 employees to wage earners. The variation reflects the inclusion or not of self-employed who are owners of real estate. Costa Rica: ratio of incomes of non-professional self-employed to wage earners.
d/ Includes those occupied in the Minimum Employment Programe (PEM).

However, the labour market reacted quite differently in each case. In Argentina, the adjustment took place via an increase in the proportion of those employed in the urban informal sector, while the open-unemployment rate remained constant throughout the period. In Chile and Costa Rica, on the contrary, the adjustment proceeded almost entirely through a rise in the open-unemployment rate, while the proportion of the urban informal sector remained constant or even decreased. The labour market in Venezuela adjusted in an intermediate manner, showing a rise both in the open-unemployment rate and in the proportion of those employed in the urban informal sector. The first case illustrates an adjustment entirely achieved by way of an increase in underemployment, Chile and Costa Rica through an increase in open unemployment and in Venezuela the adjustment operated through both open unemployment and underemployment.

One might ask what it is that determines these distinctly different types of adjustment in the labour market. Given the similarity between the four countries in respect to the magnitude of the informal sector, the difference might be traced to the average level of income prevailing in this sector. Both in Argentina and in Venezuela, the average income obtained by informal workers shows a small difference in relation to occupations in modern activities. In Chile and Costa Rica the same difference is as high as 30 per cent. This seems to imply that those who are unable to find work in the modern sector because of the adjustment in the labour market prefer to remain in active search for a job when the opportunities of alternative employment would entail a considerably smaller income. On the opposite side, when the difference is not so marked the option of working in the informal sector until the labour market becomes normal is a valid alternative.

Finally, it is interesting to compare the adjustment of the labour market in developing countries like those analysed before with one developed country, say, the United States during the same period. For this country the data show that the non-agricultural population grew at 2.8 per cent per year between 1978 and 1981, that the number of unemployed rose by 10.5 per cent per year and that the non-professional self-employed and unpaid family workers diminished by 6.3 per cent per year. It is clearly a case of adjustment through increases in the open unemployment rate. If income differentials in the US are small, or at least smaller than in Argentina and Venezuela, one would have a priori expected also an expansion of non-wage occupations but the difference lies in the existence of an unemployment insurance which in the US reaches more than 40 per cent of the unemployed. For these people, unemployment does not mean zero income, but the guarantee of their income while actively searching for new jobs.

Apart from illustrating differences in types of adjustment of the labour market, the comparative analysis made above suggests that the distributive effect of each case are different. Indeed, the existence of an unemployment insurance with wide coverage at normal income levels minimises the direct effect on the distribution of income. At the other extreme the increase in the number of unemployed without any welfare aid, as in Chile and Costa Rica, drastically deteriorates income distribution, while the intermediate cases of adjustment through expansion of less remunerated occupations also affect negatively the distribution of income but in a milder way. In this latter case, the reduction of average income of those in self-employment plays the role of a collective unemployment insurance, constituting in fact, a second best solution from a welfare point of view.

Notes

1/ The analysis of the performance and policies followed during the crisis of the 1930s closely follows the work of C. Díaz-Alejandro: Latin America in the 1930's (New Haven, Yale University, Economic Growth Centre, 1981).

2/ It should be noted that the 3 countries have different degrees of dependence on imported oil. Argentina is practically self-sufficient while Uruguay is highly dependent. Chile's position is intermediate.

3/ See, for example, PREALC: Políticas de estabilización y empleo en América Latina, series Investigaciones sobre empleo/22 (Santiago, PREALC, 1982).

4/ R. Lagos; V.E. Tokman: Global monetarism, employment and social stratification, series Occasional papers/47 Rev. 1 (Santiago, PREALC, 1982).

5/ The method used to calculate this result consisted of estimating the proportion of the debt subject to variable interest rates in relation to gross domestic product and applying to this coefficient the rate of growth of the interest rate in real terms, defined as the variation in the international interest rate deflated by the variation in the exports prices of the respective country.