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CHARACTERISTICS AND OPERATION OF LABOR MARKETS
IN ARGENTINA

by

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and Luis Riveros.

ABSTRACT

An adequate understanding of the characteristics and operation of labor markets in Argentina also requires an adequate understanding of the development strategies followed by the country and their consequences for growth performance. Institutional aspects such as government policies and regulations and labor union activities are also relevant, especially to a short-run analysis.

It is argued here that the long-run stagnation of the Argentine economy is the expected outcome of a development strategy based on an import substitution model. This strategy has led to a distortion of relative prices which resulted in a production structure strongly biased towards the domestic market, i.e. resulted in a very large anti-export bias. This gave rise to an impediment to sustained growth which originates in a conflict between the production structure of the economy and the performance of the foreign trade sector; it has been called "the trade balance/domestic growth trade-off."

Evidence analyzed in this paper strongly suggests that there can be no income policy independent of economic conditions in the labor and goods markets and the foreign sector. Even though institutional frameworks and the power relationships resulting from them can affect real wages in the short-run, it is not possible to maintain, over time, wage growth greater than productivity growth. Inflation and a misallocation of labor are the inevitable outcomes. Sustained economic growth is, therefore, hampered. For a sustained economic growth and growth in wages and employment to be possible, a substantial transformation in the organization of economic activity is required in order to eradicate the "trade balance/domestic growth trade-off."

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1. INTRODUCTION

From the beginning of industrialization in the mid-1930's until now, the Argentine economy has experienced a series of conflictive economic and political circumstances which have caused neglect of long term perspectives. As a result labor market issues have been analyzed with stronger emphasis on the short term. In turn, this has led to policies which have produced only short term results. This has been accompanied by pronounced fluctuations and low growth in real wages and a decreasing proportion of "formal" employment relative to the size of the total population.

An adequate understanding of the characteristics and operation of labor markets in Argentina must displace this short-term focus. A broader approach including both short-term and long-term concerns must be adopted. This is to argue that there are fairly narrow relationships among the behavior of labor market variables on the one hand, and structural and institutional determinants on the other. The growth of the economy and the external sector are among the first; government policies and regulations and labor union activities are among the latter. A long term view will favor the analysis of structural circumstances as the determinants of the growth of wages and employment. Institutional aspects attain greater relevance when sub-periods or stages are analyzed concurrently with the short run crises of the Argentine economy.

The main issues regarding the performance of Argentine Labor Markets

Markets and the hypotheses discussed in this study are:

1. The long-run stagnation of the Argentine economy is the expected outcome of a development strategy based on an import substitution model. Such a strategy demanded protective commercial and exchange rate policies as well as fiscal and monetary policies which affected Argentina's growth performance.

2. These policies have caused distortion of relative prices and resulted in a productive structure strongly biased towards the domestic market, i.e., they resulted in a very important anti-export bias. This gave rise to what has been called "the trade balance/domestic growth trade-off". It originates in a conflict between the production structure of the economy and the performance of the foreign trade sector.

3. This anti-export bias leads to an insufficient supply of foreign exchange compared to the demand arising from imports at the prevailing exchange rate. Since economic growth, in this context, increases the demand for imports while simultaneously reducing exports (predominantly composed of wage-goods because manufactured goods are mainly "home-goods"), there is a specific real wage level consistent with a balanced current account. A higher real wage leads to a current account deficit; later, a subsequent necessary devaluation implies a fall in both the real wage and the level of economic activity, an improvement in the trade balance, etc.

4. As a result of this inwards-strategy and the accompanying "trade balance/domestic growth trade-off", Argentina's growth performance shows not only a strong tendency to stagnate in the long-run, but in addition a sequence of ups and downs in the level of economic activity, i.e., notorious "go-stop" cycles. Upswings in each of these cycles were induced by

expansionary domestic demand policies. Strong union pressures to raise wages and employers' permissiveness (increasing urban wages meant enlarging the domestic market), are crucial elements explaining the adoption of these policies. They involved a set of fiscal monetary, and foreign sector policies.

5. Inflation was an inevitable outcome. These policies, in addition to lack of sustained economic growth and the closed nature of the Argentine economy caused prices to grow over time.

6. This economic performance affected wages and employment. On the wage side, one of the main results has been sluggish growth in average real wages over the long-run and, at the same time, large fluctuations around this stagnant trend. Therefore, nominal wage setting faced recurrent conflicts with the real wage-setting process such that any attempt to reach a higher level of real wages could not be sustained in the long-run. Average productivity was putting a ceiling to wage increases, so any deviation from it, originating from institutional pressures or favorable changes in foreign terms of trade, could not last for more than two or three years. But, since the change in relative prices necessary for obtaining a given increment in the average urban wage becomes greater with the passing of time, the result was that the upswings were shorter each time. On the other hand, relative wages tended to favor those sectors engaged in the production of services and non-tradable goods (including government).

7. Due to incentives provided by these trends in relative prices, to public policies regarding social expenditures, and to distorted wage differentials between skilled and unskilled labor among regions because of the centralized nature of the nominal wage setting process, population

concentrated in a reduced number of urban centers. In turn, this resulted in a large concentration of workers in commerce, services, and construction, i.e. in non-tradable urban activities. Later, this concentration became more intense when economic changes occurred during the 1970s led to profound changes on the demand side of the labor market such that there was both a shift in employment from manufacture to services and a pronounced drop in the level of aggregate employment.

8. Despite the stagnant trend experienced by the Argentine economy over the long-run, open unemployment has not been a significant problem in urban labor markets. The reasons explaining low unemployment levels are on the one hand, a "demographic" scarcity of labor and the aging of the population. On the other, the pattern of incentives created by the import substitution strategy (ISS) induced an increasing amount of tertiary employment. When economic conditions deteriorated sharply since the mid 1970s, this demographic scarcity of labor was aggravated by a significant flow of drop-outs leaving urban labor markets (either emigrating or just going into non-market activities).

9. Evidence analyzed strongly suggest that there can be no income policy independent of economic conditions in the labor and goods markets and in the foreign sector of the economy. Even though institutional frameworks and the power relationships resulting from them can affect real wages in the short-run, it is not possible to maintain over time, wage growth greater than productivity growth. Inflation and misallocation of labor are inevitable outcomes. Sustained economic growth is therefore hampered. For sustained growth of the economy as well as of wages and employment to be possible, a substantial change in economic organization is required, such that the "trade

balance/domestic growth trade-off" no longer operates.

Due to the lack of sufficient data concerning employment in the rural/agricultural sectors and to the pronounced level of urbanization and centralization of the country, the analysis below is necessarily restricted to Argentina's principal urban labor markets.

Section 2 offers a brief long-term overview of the Argentine economy. The effects of its growth pattern on the wages performance and the availability and allocation of labor are analyzed in sections 3 and 4. Section 5 presents an analytical and empirical study of the relationship between wages and employment. Conclusions and policy implications derived from the analysis are discussed in section 6.

2. LONG TERM OVERVIEW OF ARGENTINE ECONOMIC GROWTH

2.1. Development Strategies and Argentina's Growth Performance

Argentina experienced very high economic growth during the period 1860-1929, when the country followed an export-led growth strategy. This was an almost free-trade strategy characterized by full integration into world markets and an allocation of resources compatible with the country's comparative advantages. As a result, the Argentine economy grew considerably under the influence of primary exports (or "staples"). (See Cavallo and Cottani, 1986).

After the Great Depression, there was a fundamental change in economic policy when the country adopted an import substitution strategy (ISS). During its first stage (up to 1948), industrialization took place in

the light branches (foodstuffs, textiles, clothing and leather products); primary exports expanded under favorable conditions, especially during World War II. But the most dramatic change occurred after 1945 when a government's policy based on the enlargement of the domestic market resulted in a policy of deliberately neglecting exports. Both overvaluation of the exchange rate and extremely high tariffs resulted in a poor level of performance of the export sector and left import substitution industries with the difficult task of securing an external balance consistent with the targeted rate of economic growth.

Since the ISS lacked the dynamism required to avoid foreign exchange shortages, balance of payments disequilibria became chronic. After 1955 (when President Peron was overthrown) the economy moved into a trade system less closed than under Peron, but political instability and frequent changes in relative prices dampened the country's export capacity. (Cavallo and Cottani, 1986).

The ISS gave birth to a type of domestic industrialization which increased the demand for imports of capital goods and inputs. As a result, foreign exchange bottlenecks constrained industrial output and gave rise to the stop-and-go cycles that have characterized the Argentine economy for the last 30 years: Domestic growth has been limited by the appearance of external payments crises which, in turn, could only be remedied by means of induced recessions.

A few figures are sufficient to illustrate the opposite growth performances derived from these two strategies. In 29 years of export-led strategy, from 1900 to 1929, real GDP per capita increased 53%, or 1.5% per year^{1/}. During the first 29 years of the import substitution strategy, from

1929 to 1958, this annual rate dropped to 0.8%, accumulating a real GDP per capita increase equal to 28%. Growth performance deteriorated even more during the following 27 years (1958-1985): real GDP per capita grew only 10%, i.e. 0.3% per year. At the same time, the average annual rate of inflation (measured by the CPI) was negative (-1.6%) during the interwar period, 1919-1939; positive during the World War II years, 1939-1944 (2.3%); and very high from 1944 to 1985 (66%).

Thus, the inwards-oriented strategy resulted in a very poor level of economic performance. Stagnation and high inflation became common characteristics and were accompanied by severe cyclical variations in economic activity. Short periods of economic growth were inevitably followed by short recessions associated with chronic balance of payment crises.

2.2. Relative Prices and Structural Changes

The external balance policies applied by the country provide a crucial explanation for this poor economic performance. These policies affected relative prices and, consequently, the output structure of the economy. The main structural changes can be expressed in terms of the rate of growth of the GDP and of some of its various components such as value added in agriculture, value added in government services and exports (at constant prices). (Cavallo, 1986).

Until the 1940s, long-term rates of growth were similar for the different components of GDP, but afterwards changes became notorious: a) Between 1940 and the early 1950's agriculture stagnated, exports went down sharply, and government services expanded very rapidly; and b) From then on,

agriculture recovered partially, government services went back to a lower rate of growth, and exports reversed their trend and started to grow at a rate higher than that of GDP. (See Table A.1).

These structural changes were the expected outcome of concomitant changes in relative prices. It is shown in the same study that during the 1930's and the 1940's the relative price of agricultural goods was low compared both with the level that prevailed during previous decades and with the relative price for non-agricultural goods. In addition, reduced price incentives to produce exportables and an expansion of domestic consumption derived from expansion government services and the implementation of the ISS caused a sharp decline in exports.

"Commercial policies" such as taxes on exports and imports, quotas, licences, etc., and exchange controls were responsible for the major part of the increase in the effective exchange rate for imports relative to the effective exchange rate for exports. Therefore, the prices of import substitutes compared to those of exports became much more attractive for most investment decisions. This created an anti-export bias, which was inserted into the economy especially during and immediately after World War II. Since that time, this has remained a permanent characteristic of Argentina's economy.

In addition to these structural changes, the Argentine economy also experienced short-run crises. It can be seen in Table A.1 that all of the recessions until the first part of the 1950's took place during years of declining agricultural output and exports. From then on, recessions were not associated with declines but with increases in agricultural output and export volume, and with declines in the value added by the non-agricultural sector

(except government). Therefore, these were "urban crises"; as explained below, they were the result of devaluations needed to increase the price of agricultural goods and the level of output and export volume of the agricultural sector.

In sum, Argentina's economic performance over the long run exhibits, as a first distinctive characteristic, a limit to its growth possibilities caused by the exclusion of foreign markets. As a second distinctive characteristic, the importance of short-run recessions should be emphasized. According to the results obtained by Cavallo (1986), domestic economic policies (fiscal and monetary policies, fixed nominal exchange rates, etc.) caused the large fluctuations experienced by the real exchange rate since 1956. In turn, the stagflation crisis of the 1956-1984 period was closely related to these policy-induced cyclical variations in the real exchange rate which played a crucial role in creating recurrent balance of payment crises.

2.3. The Trade Balance/Domestic Growth Trade-Off

The "Trade Balance/Domestic Growth Trade-off" originates in a conflict between the production structure of the economy and the performance of the foreign trade sector, i.e. between the sectors producing for domestic consumption and the sectors producing for foreign consumption. For this analysis, it is useful to distinguish three sectors whose relative prices are crucial to economic growth in both the short and the long terms, the balance of payments, and the determination of real wages. (Llach and Sanchez, 1984):

Section I - The Agricultural Sector in the Pampa Region (and related activities). Traditional producer of some two-thirds of Argentine exports and

consumer of very few imports, it is thus a net exporter. The goods it produces, nevertheless, are vital to the domestic consumption of food and, for this reason, its prices are inversely related with real wages. In addition, it accounts for 15% of national product and 10% of employment.

Sector II - The Import Substitution Sector. Includes regional crops (that is, outside of the Pampa Region), manufacturing, energy, and mining. This sector was developed in order to substitute for imports in the context of a highly closed economy. Under the prevailing inwards-oriented development strategy, this sector is only a marginal exporter, and is a net importer of inputs and capital goods. It is, nevertheless, with an appropriate alignment of the exchange rate, a potential net exporter. It generates approximately 25% of the GDP and 30% of employment.

Sector III - The Sector Producing Services and Construction. Characterized by essentially non-tradable goods and services; according to the Argentine experience, it is closely associated with levels of urbanization and public expenditure. Additionally, the sector is naturally associated with lower increases in productivity than the other sectors. It is a structural net importer and, as such, growing employment in the sector will have only a negative effect on the trade balance. Approximately 60% of the GDP and total employment are concentrated in this sector.

Because of this almost exclusive interest in short term dynamics, the analysis of the trade balance/domestic growth trade-off traditionally combined Sectors II and III into a common "urban sector". The justification for this dichotomy was that both sectors are net importers and have high income elasticities of demand for imports. By contrast, they generate more than 80% of the GDP and employment.

The conflict between what is required to stimulate long-term economic growth and the factors able to do it in the short-run can be analyzed through this contrast between the contributions of the urban sector to the level of economic activity (very high) and the external balance (negative). Given the structure of the economy, if no specific policies designed to eliminate this conflict are implemented, an increase in the level of economic activity is soon self-aborted because of the inevitable balance of payments crises. (This oscillation in production and exports is shown in Table A.1).

The Long-Term. In the long-term, the economy is only able to have stable growth if this external impediment is eliminated. For this to be possible, since Sector III is a net importer non-tradable goods and services sector, Sector I and, under certain conditions, Sector II must be the sources of growth. These conditions imply a change in commercial and exchange rate policies to bring relative domestic prices close to the international price frontier.

As said before, growth in Sectors I and II requires, among other things, a stable and high exchange rate over time (avoiding overvaluation of the domestic currency). It has also been shown that a high rate of exchange causes real wages to be low (at least in food-purchasing power; see Cavallo and Mundlak, 1982, Chapter 5). Since the real wage measured in terms of food is usually an important variable observed by policymakers, this is a policy difficult to implement. Therefore, without eliminating the external impediment there can be no long-term growth. But to eliminate it requires relative prices and, consequently, real wages, to be at politically unacceptable and contractionary levels in the short-run.

The Short-Term Dynamics. The short-term dynamics are the opposite. The rate of growth of the economy, as well as its level of activity, are highly dependent on the rate of growth of the "Urban Sector", that is, the combination of Sectors II and III. This rate fundamentally depends on real wages and their effects on aggregate consumption. In the historical experience of Argentina, both real wages and investment in the Urban Sector necessary to achieve full employment have been the result of the operation of a set of relative prices more or less artificially imposed through economic policies which discriminate against Sector I (they consisted in setting a fixed wage and/or a fixed exchange rate by administrative decisions; see section 3.3 below). Whenever this set of relative prices exceeds certain critical levels it becomes incompatible with external balance. Therefore, each time this has happened in the past, a devaluation of the domestic currency was required in order to attain a new set of relative prices more favorable to Sector I. This was required in order to achieve external balance more rapidly, in spite of the cost to domestic equilibrium.

3. WAGE PERFORMANCE IN THE SHORT-TERM AND THE LONG-TERM

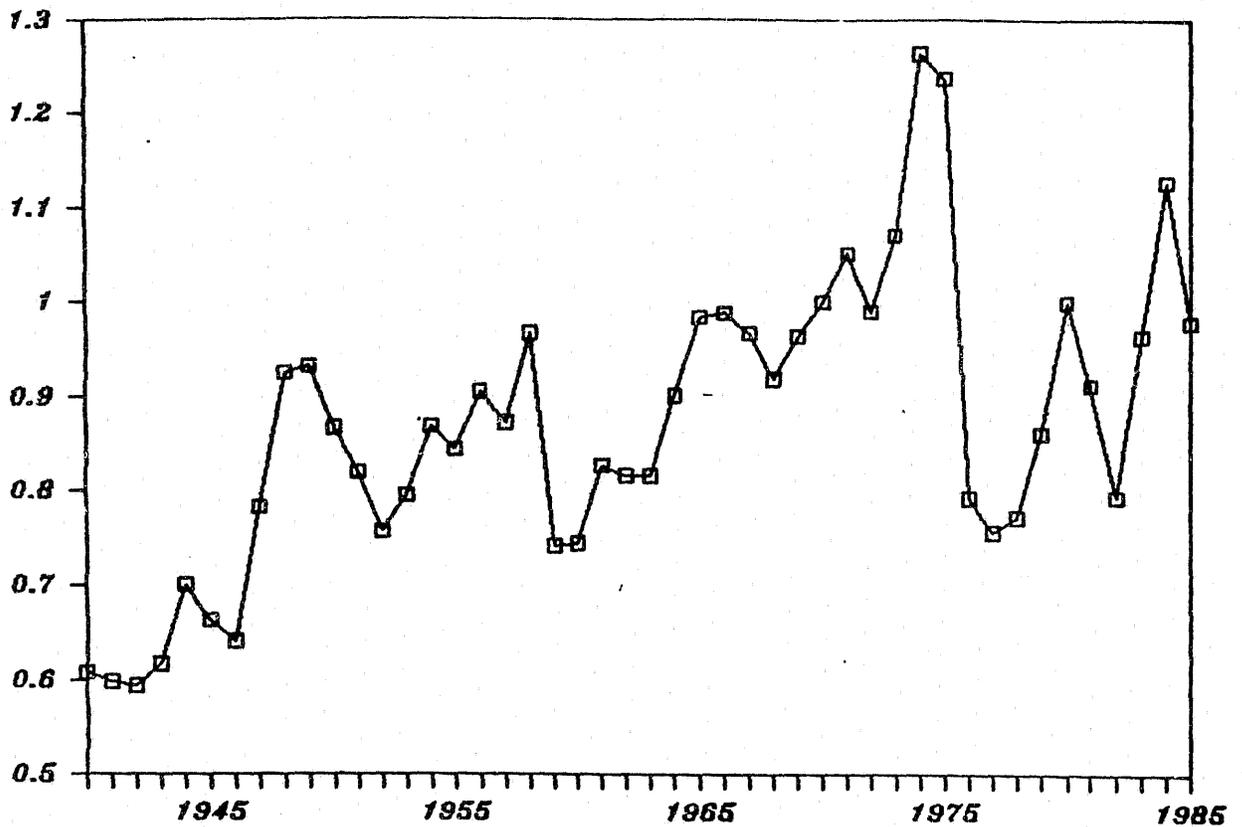
3.1. The Evolution of Real Wages

As seen in Table A.2 and Figure 1, the two most obvious characteristics of the evolution of wage-earners real compensation (here called "real-wages", even though it refers to both blue-collar and white-collar remuneration), are its large fluctuations and its sluggish growth over the long-run.

Between 1940 and 1985, real wages neither grew nor fell more than three consecutive years. The periods of three years of consecutive growth

were 1947-1949, 1964-1966, 1969-1971, and 1978-1980. They were unique periods: not only were they associated with relatively high rates of GDP

Figure 1
The Evolution of Real Compensation of Wage-Earners
(Index, 1970=1)



Average nominal wage in the economy deflated by the
Consumer Price Index.

Sources: See Table A.2.

growth,^{2/} but they also preceded four of the five most serious crises in the external sector. In all but one case (1969-1971), these "long" periods of real wage increase were also followed by periods of sustained decline: 1950-1952, 1967-1968, and 1981-1982.

Even when considering the most favorable periods, it is easy to see that mild growth in real wages has been a permanent characteristic of the Argentine economy throughout this extended period. If five-year averages are taken in order to eliminate the effects of short-term peaks and valleys, the evolution of real wages since 1940-44 is as follows (the last period listed represents a three year average corresponding to the first three years of the Alfonsín government):

Table 1

The Evolution of Real Wages Using the Average
of the Period 1940-1944 as the Reference Wage

1940-44	Rate of Real- Wage Growth (% annual)	Years necessary to double the Real Wage
1967-1971	1.70	41
1971-1975	1.92	36
1973-1977	1.51	46
1978-1982	0.87	80
1983-1985	1.18	59

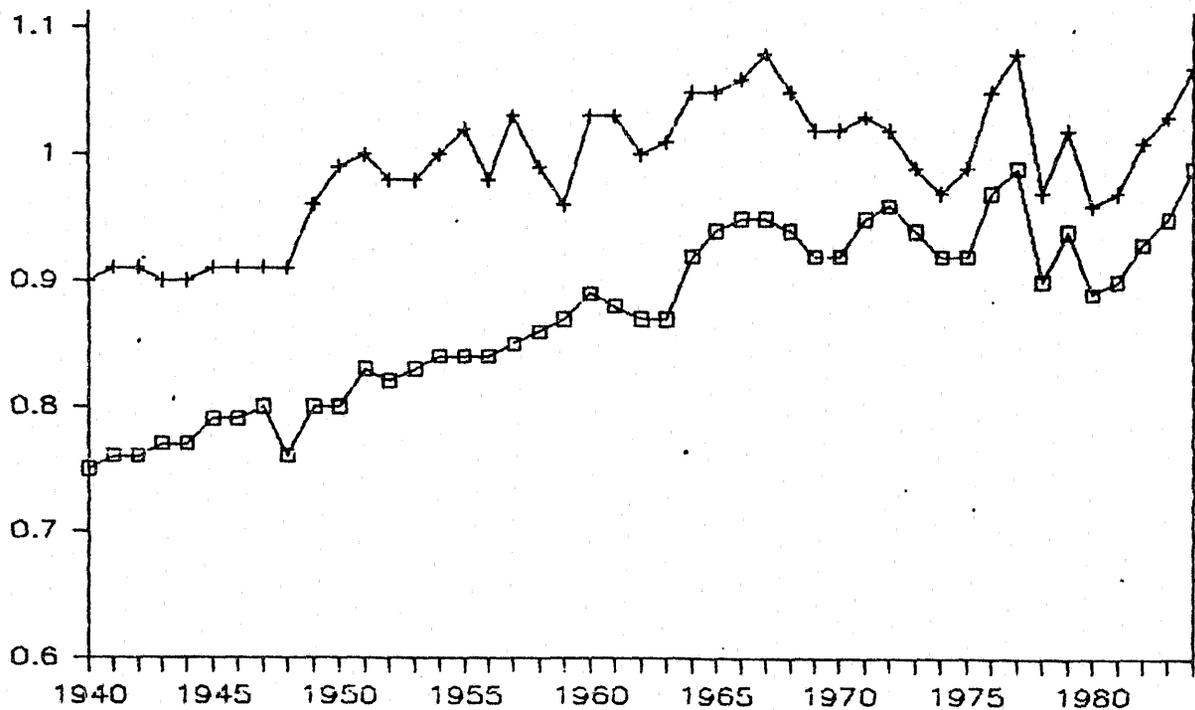
If the more favorable period was chosen as the terminal point (1971-1975), the result would still be a very low long-term annual rate of growth in real-wages (less than 2%).

3.2. Relative Wages

As stated before (see Section 2) the import substitution policy enforced in Argentina was, in fact, a domestic market-oriented strategy which reduced incentives for the production of exportable goods while simultaneously attempting to increase domestic consumption. Relative prices changed concomitantly and affected relative wages.

Figure 2

The Evolution of Relative Wages



- Average wage in the tradable sector (sectors I and II) relative to average wage in the non-tradable sector (sector III): lower line.
- Average wage in manufacturing, mining and energy (sector II) relative to average wage in sector III: upper line.

Source: See Table A.3

One of the effect was that wages in the non-tradable sector (w_{III}) were higher than that in the tradable sector ($w_{I,II}$)^{3/}. It can be noted that, in spite of fluctuations, the ratio $w_{I, II}/w_{III}$ increased until 1966; however, the value of the ratio was always less than 1. After that year, large fluctuations and a decreasing trend were observed until 1980, when an upward trend seemed to begin again (see Table A.3 and Figure 2).

But in the case of Argentina, it is also important to look at the relationship between wages in manufacturing, mining, and energy (Sector II) and wages in construction and services (Sector III).

It must be remembered that Sector II, or the Import Substitution Sector, produces potentially-tradable goods which have been excluded from external markets because of trade policies and other macroeconomic policies pursued by the government. Since increases in productivity in the activities included in Sector III are usually lower than those in Sector II, the evolution of the ratio between the average wage in the latter (w_{II}) and that in the former (w_{III}) would be an indicator of how efficiently resources are allocated between these two "home goods" sectors. If wages in Sector III grow at a similar rate as that of Sector II, while increases in productivity in Sector III are lower than those in Sector II, labor will tend to be allocated inefficiently.

As depicted in Table A.3 and Figure 2, the ratio w_{II}/w_{III} was less than one for one-half of the years of the period 1940-1984 (22 out of 45 years). In the remaining years, the average wage in Sector II (industry, mining, and energy) was slightly higher than that of Sector III (services and construction). The wage differential tended to grow at the end of the period.

However, this differential is growing at a lower rate than the

differential in productivity between these two sectors. Thus, increases in w_{II} and w_{III} are not exactly reflecting productivity gains.

This conclusion is derived from the results obtained by regressing the relative wage w_{II} / w_{III} on the relative productivity q_{II} / q_{III} , and each sector's wage on the corresponding productivity. If productivity is defined as the sectoral value added (at constant prices) divided by sectoral total employment, the following regression coefficients are estimated:^{4/}

Table 2

Wages and Productivity: Regression Coefficients (1940-1984)

	Dependent Variable	Constant	Constant elasticity coefficient	t	Adjusted R ²
1-	w_{II}/w_{III}	-.18	.45	11.0	.75
2-	w_{II}	7.06	.29	4.4	.31
3-	w_{III}	6.59	-.03	-.1	-.02

(41 observations)

Since the value of the estimated constant elasticity coefficient (Regression 1) is less than 1, differential productivity gains in sector II are not reflected in the same proportion in the corresponding wage differential. According to Regressions 2 and 3, this is the result of both a low positive correlation between productivity and wages in Sector II and a lack of correlation between wages and productivity in Sector III.

Another relevant way of looking at relative wages is to compare the wage level in the public sector with the wage level in the remaining non-

agricultural activities. Government employment is one of the major components of employment in Sector III. It represents approximately 30% of non-agricultural employment and 17% of total employment. As reported in Table A.3, this large absorption of employment was associated with a high relative wage, especially during the period 1964-1984.

Therefore, the distortions in relative wages noted previously could have been, to large extent, a direct consequence of the evolution of public wages.^{5/}

3.3. Wage-Exchange Rate Policies

The principal policy tool employed by the government when aiming to redistribute income in favor of the urban sectors (sectors II and III) consisted in setting a fixed wage and/or a fixed exchange rate by administrative decisions. Since the objective was to raise wages relative to the exchange rate, these policies can be labeled "wage-exchange rate" policies. These policies, which imply a change of relative prices in favor of the non-tradable sectors, have proved to be ineffective for sustained growth in real wages; on the contrary, their main result has been a reinforcement of the trade balance/domestic growth trade off.

If the option taken was to fix or control the exchange rate, prices and wages in sector III (construction and services) increased relative to those in sectors I and II. The period 1978-1980 is an example of the exercising of this option (See Figure 2 and Table A.3). Instead, relative prices between these last two sectors depended to a large extent on trade policies (tariff on imports, taxes on exports, etc.).

If, on the contrary, policy consisted in fixing wages by means of a centralized administrative decision with the aim of keeping wages in sector III growing at the same path as those of sector II, the results are the same. That is, relative prices will move in the same direction, resulting in an improvement for the non-tradable sector relative to the tradable sector. The experience observed since the last half of the 1960's until the mid 1970's is an example of the effects of this policy (see Figure 2 and Table A.3). Obviously, different combinations of these policies yield the same basic results, but in varying intensities. For the whole period 1940-1985, these basic results are those reported in sections 3.1 and 3.2 (see Tables 1 and 2); the wage differential between sectors II and III is growing at a lower rate than the differential in productivity between these two sectors, i.e. increases in W_{II} and W_{III} are not exactly reflecting productivity gains. There is a low wage-productivity elasticity (.29) in sector II, and no correlation at all between wage and productivity increases in sector III.

The importance of these results is that the higher prices become in sector III relative to those in sector II (whichever is the relative position of these two with respect to prices in the agricultural sector, or sector I), the worse will be the balance of payments situation for any given level of economic activity.

Since this wage-exchange rate policy systematically favored sector III, it accentuated the problem of an economy under foreign trade impediment to growth. Important as it is, this short-term result is not, however, the most important effect. The systematic implementation of this policy was an important factor contributing to the concentration of more and more resources in sector III (including, of course, the self-employed activities which are

common in this sector). This is not only an impediment to sustained growth, but also an inducement for wage-earners to move into sector III. Given a situation like this, government decisions to grant across the board wage increases implied, in fact, that prices in sector III had to grow at a growing rate relative to that of sector II in order to keep relative wages as targeted. In other words, the change in relative prices necessary to obtain a given increase in the average wage of the urban economy becomes greater with the passing of time. In turn, this is an impediment to the growth of real wages both in the long-run and the short-run.

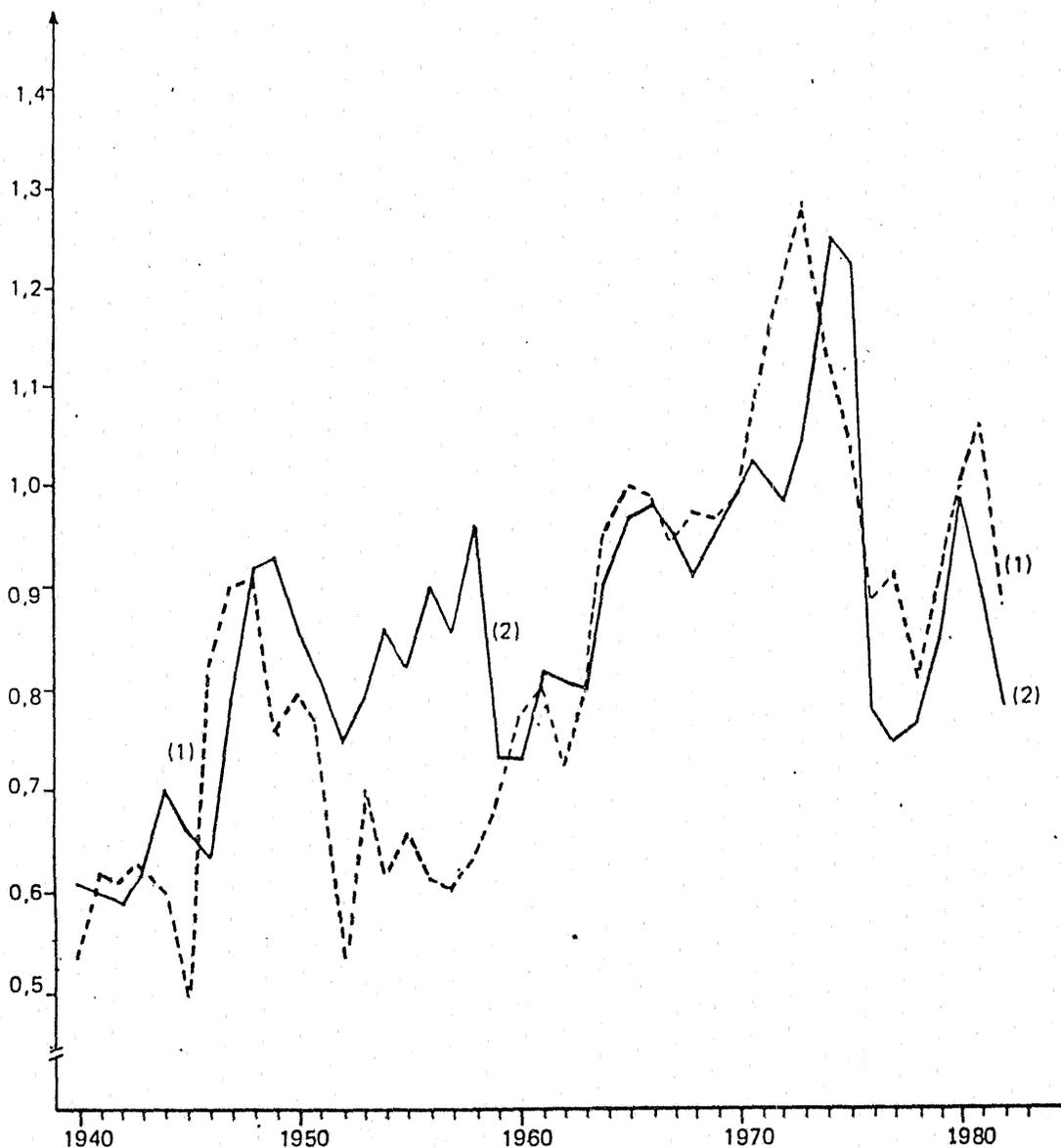
3.4. Foreign Terms of Trade and Real Wage Increases

While the principal mechanism historically employed to increase real wages was the "wage-exchange rate" policy, its success depended not only on government preference but also on conditions prevailing in the foreign sector. Curiously, the governments that were most in favor of redistributing income towards wage-earners, often found conditions genuinely but fleetingly favorable, especially with regard to the foreign terms of trade (FTT). Such was the case of Peronist governments between 1946 and 1953, and 1973 and 1974, and, to a lesser extent, the Radical government between 1964 and 1966.

An improvement in FTT implies a sort of rent or windfall gain for the country, i.e. with the same level of production, there is a larger amount of income to distribute. At the same time, the favorable foreign trade balance allows the domestic currency to be overvalued and, therefore, to increase the real wage. But if nothing changes in the economy except the FTT, if it later deteriorates, this increase will disappear (see J. Llach 1983). This was the main reason why the above mentioned Peronist and Radical governments were able

to let the real exchange rate fall while increasing both domestic absorption of goods and real wages (See Figure 3).

Figure 3
Aggregate Real Wage and Average Labor Productivity
Deflated by the Foreign Terms of Trade



- (1) Average labor productivity deflated by the FTT.
- (2) Aggregate real wage (nominal wage deflated by the CPI).

Source: J. Llach and C. Sanchez (1984), Figure 3.

3.5. The Operational Scope of Wage and Income Policies

The large concentration of population in a few urban centers, and institutional arrangements combined to give birth to a process of nominal wage setting strongly affected by government regulations and by the power of labor unions. This process faced recurrent conflicts with the real wage-setting process such that any attempt to reach a high level of real wages could not be sustained in the long-run.

Unions have always been politically well-equipped for the achievement of their aims. Even though some important changes in the structure of power of the labor movement have been occurring during the last decade, it is still a greatly expanded, disciplined and politicized organization.

It means that in addition to the economic determinants analyzed already, institutional pressures derived from government preferences and policies as well as from labor union activity also existed.

If the extended period of time from 1940 to the present is analyzed, the Argentine experience reveals the existence of successive governments which followed distinctly different policies from one another. Not only were the methods of setting nominal wages different (government decisions, collective bargaining, employer decisions) but also the degrees of maneuver allowed for union activity, as well as the objectives followed by each government regarding income distribution.

All this resulted in distinct categories of distributionist or restrictive policies that were applied both in favorable and unfavorable contexts from the point of view of the growth of the economy and the external sector. Virtually, as was seen, none of these policy combinations reached lasting success in their times. Most often, the degree of success in building

higher real wages and other gains for wage-earners, was opposite to its durability. The ultimate explanation for this was the incapacity of the Argentine economy to achieve sustained growth.

The experience studied in J. Llach and C. Sanchez (1984) covering the period 1940-1984 reveals that it is nearly impossible to maintain, over time, a distributionist income policy independent of economic conditions in the labor and goods markets and in the foreign sector of the economy. At the same time, it is also correct to state that the fluctuations in real wages resulting from the evolution of these conditions can be affected by predominantly institutional frameworks and the power relationship resulting from them.

To accept that, within a given margin, the Argentine labor movement has the power to affect real wages is not to say that it has sufficient power in order to force a distributionist environment able to maintain, over time, wage growth greater than productivity growth. On the contrary, the evidence analyzed in Llach and Sanchez (1984) suggests that the economic and political activity of labor unions cannot, by itself, impose wage increases or distributionist rules if they happen to surpass the limits given by the overall economic condition of the country. Whenever unions tried to overstep these limits, the outcome was an enlargement of wage differentials among economic activities and, finally, a redistribution of income within the wage-earner group. In fact, since the answer to union pressures for higher wages has been the so called wage-exchange rate policy which, in turn, contribute to the concentration of resources in the non-tradable sector, sustained economic growth becomes more and more difficult to attain.

4. EMPLOYMENT AND UNEMPLOYMENT

The behavior of the Argentine economy over the long-run, particularly in the 1970's, has caused both a decreasing level of aggregate labor force participation rate and employment, and a sectoral allocation of labor that tended to diminish the supply of wage labor to the goods-producing sectors. Due to these economic trends and to a demographic scarcity of labor and the aging of population 6/, open unemployment has not been a significant problem in the urban labor markets (see Table A.4). In the last fifteen years, there was a process of transfer of workers to construction and service activities and to non-wage occupations that affected the availability of labor in the industrial sector. It was also evident that a substantial part of the labor force dropped out of the urban labor markets due to unfavorable wage and employment conditions prevailing in these markets. This withdrawal effect added to the demographic effect of the aging of the population and, in consequence, accentuated the scarcity.

Drop-outs and many of the employed in the non-tradable sector constitute, therefore, a reservoir of labor which could be employed by an expanding tradable-goods producing activity. Both the search for a new job in the tradable sector and the decision to enter the market again would result from a growing level of relative and real wages, and of the probability of employment in this sector.

4.1. Participation Rates

High labor force participation rates, greater than 40% of the total population, were frequent in the urban markets of Argentina. This was the

result not only of a high level of participation of males of working age^{7/} but also of women, young men, and elderly persons. For example, in 1970 the participation rates of these last three groups in Greater Buenos Aires were 30%, 21% and 34% respectively. However, in 1981 they dropped, in the same order, to 26%, 11%, and 24%.^{8/}

Estimates of aggregate labor force participation rates in the urban markets of Argentina for the period 1950-1984 are reported in Table A.4. From 1950 to 1970 these rates maintained extremely high levels; during those years, 44%, 45%, or even 46% of the total population decided to enter the labor market. Afterwards, this participation declined sharply and reached a new trough which can be estimated at 38% of the population living in GBA, Cordoba, and Rosario, that is, something approximating 5 million people out of 13 million.

This pronounced downward trend of the labor force participation rate was the result of the combined action of the two aforementioned effects; the demographic effect and the withdrawal effect.

The withdrawal effect:

In the short-term, labor supply seems to be very sensitive to changes in labor market conditions. It has been frequently noticed that the number of suppliers and, consequently, the level of the participation rate, experience large fluctuations over short periods of time: one year, for example. These fluctuations around the trend level are associated with circumstances of economic expansion or recession and are the result of two opposite flows of workers entering and leaving the market.

If adequate information is not available for the purpose of this type

of a dynamic study of a market, the model for analysis should be tied to the net result of both flows with one or more variables that would appropriately reflect market conditions.

The conventional procedure consists in regressing by means of a linear model the observed labor force with some variable that measures the

Table 3

Labor Force Participation: Regression Coefficients

	Constant	E/P	t	R ²
<u>Greater Buenos Aires</u>				
L/P	.063	.919 (9.17)	-.0005 (3.05)	.97
L ₂ /P ₂	-.145	1.003 (4.10)	-.0008 (1.33)	.92
<u>Cordoba</u>				
L/P	.134	.754 (7.71)	-.001 (3.78)	.94
L ₂ /P ₂	-.039	.790 (6.35)	-.001 (4.39)	.95
<u>Rosario</u>				
L/P	.068	.918 (17.30)	-.0009 (5.15)	.98
L ₂ /P ₂	-0.134	.977 (8.74)	-.0005 (1.48)	.94

L = labor force
P = total population
L/P = activity rate
L₂/P₂ = secondary workers activity rate

() = T values. GBA and Rosario 23 observations; Cordoba 26 observations.

Source: Sanchez, Ferrero and Schulthess (1979).

degree of market tightness. This could be either the unemployment level in relationship to the labor force or employment in relation to the total population. A previous study (C. Sanchez et. al. 1979) utilized the second option because it more adequately reflects, in the aggregate, the existing opportunities for employment in the market.^{9/}

According to the results of this study (see Table 3) discouraged worker outflows outweighed additional worker inflows. Consequently, we have to expect a drop in labor force participation rates when the probability of having a job declines and an increase when this probability is high again. This withdrawal effect is very strong in the short-term, especially within the category of secondary workers^{10/}. As said, the empirical findings were derived from a regression analysis in which the activity rate (L/P) is a linear function of the probability of employment (E/P), and a trend variable (t). Regressions were run by OLS both for the total labor force and for the secondary workers (L₂). The period under analysis was 1964-1978 (see Table 3).

Given these results, a straightforward interpretation of the open unemployment rate is not possible. In other words, if "discouraged workers" drop out of the labor market and this is statistically recorded as a drop in labor force participation rates "hidden unemployment" would underestimate the true level of unemployment.

The withdrawal and the demographic effects:

As was stated above that the labor force participation rate registered a pronounced downward trend during the last fifteen years. This was the result of the combined action of the demographic effect and the

withdrawal effect.

The former is a consequence of the aforementioned aging of the population, and a concomitant declining share of the population of working age (20-59 years old) in the total population^{11/}. The latter is a long-term effect derived from the deterioration of the expected wage (defined as the wage rate adjusted by the probability of employment) that occurred during the period 1970-1985.

An analysis of decreases in the participation rate by estimating the withdrawal and demographic effects throws light on the relative importance of each. These effects were measured across the period 1964-1981. The former is estimated by assuming the population's age structure as constant, while the latter assumes a constant participation rate^{12/}. The former accounts for more than 80% of the drop in the activity rate in Cordoba, while in Rosario it accounts for more than 60% and in GBA for 50% (See Sanchez et. al., 1979; Sanchez, 1980; and Mann and Sanchez, 1984).

These figures indicate that the withdrawal effect was the strongest in Cordoba and weakest in GBA. Since people in the 20-59 age bracket are the typical migrants, the changes in the domestic migratory flows that have taken place since the mid 1970s are one of the reasons explaining the differential weight of the demographic effect in each city (the contribution of migrants to the growth of the PWA decreased earlier in GBA and Rosario than in the city of Cordoba. See C. Sanchez, O. Nordio and J. Motta, 1984).

To sum up, two long-term factors have affected the relative size of the labor force in these markets. Both of them are, in fact, the effects of a permanent change in the real wage (related with a deterioration in the level of economic activity and the probability of employment) on the supply of labor.

A long-run analysis (Sanchez, 1982), studied the relationship between labor supply and real wages in GBA, Cordoba, and Rosario by estimating different levels of reserve prices (cut level of wages) pertinent to various groups (males of working age, females, younger persons, and elderly persons)^{13/}. According to the results, the labor supply is a positive function of real wages, but real wage-elasticity is not the same for all of the groups. In general, the supply of males of working age is less elastic (less than one) than that of the remaining groups. The supply elasticity of younger men and females is higher (in some cases higher than one).

These results suggest that a permanent increase or decrease in the level of real wages will induce equal sign changes in labor supply. Supply reactions will, however, have different intensity depending on which group of suppliers is considered. The study also included a static simulation exercise to determine the level of employment, labor force, and real wages that would come about on the assumption of a 4% GNP annual growth rate beginning with the first quarter of 1970 and ending with the same quarter of 1981. Until 1975 there were no significant differences between actual and simulated real wages as well as between actual and simulated labor supply; however, after 1975 simulated wages and labor supply grew faster than their corresponding actual values. Therefore, the results also suggest that if Argentina could achieve a period of sustained economic growth such as the one simulated in the exercise, the resulting growing level of employment would imply real wages higher than the low level prevailing after 1975.

As a summary and update of all of the empirical evidence, a regression can be run for the period 1974-1985. By regressing the average participation rate in the urban areas^{14/} on the expected wage (wage rate adjusted by the probability of employment) and a demographic variable

(proportion of PWA in the total population), constant elasticity coefficients can be estimated.

The evidence documented in Table 4 confirms the previous findings. Although low, the elasticity of labor supply to changes in wages and employment is positive.

Table 4

Supply Elasticity in Urban Areas

	Coefficient	T. Statistic
Constant	- .309	- .60
Expected Wage	.039	3.67
Demographic Variable	.956	7.44
Adjusted R ² : .80		
24 observations		

The migratory effect:

Changes in expected wages are also behind the demographic effect. On the one hand, migration to these markets seems to be very sensitive to changes in both variables. On the other, since the importance of 20 to 59 year old males within the migrant group is high, the demographic effect would be correlated with them.

In this sense, the behavior of migrant workers would be similar to that of the secondary or additional workers. In other words, those who leave

the labor force in a given local market can either become inactive or move to other markets. If those who have withdrawn migrate to another area, the withdrawal effect will look like a demographic effect.

A "Harberger-Todaro" model of labor migration can help to explain this process^{15/}. When minimum wage legislation or any other institutional obstacle such as union activity precludes the existence of a flexible wage rate, the wage rate will tend to be above the equilibrium level. If the wage differential between two markets is high enough to start a migratory process from one to the other, the wage rate will not clear the recipient market and labor supply will be greater than demand. Unemployment will, therefore, become a permanent characteristic of the recipient market.

Given these conditions, the flow of migrants will not be regulated by the wage rate but by the unemployment rate. Following Harberger, if the level of the minimum wage induces a large inflow of migrants while employment is already high, unemployment will increase until an "equilibrium" level is reached. As a result, potential migration will tend to adjust to a level compatible with the rate of growth in labor demand.

With a similar approach, M. Todaro argues that a given flow of migrants is not determined by the real wage differential, but by what he calls the "expected" differential. That is, the wage differential is adjusted by the probability of getting a job in the recipient market.

This "Harberger-Todaro" type of model provides an adequate analytical framework to study migration in Argentina. In Sanchez (1979) this model was applied to explain the migratory flows from adjacent countries. Results reveal that the flow of migrants from Paraguay behaved in accordance with the theory, i.e., there seems to be a very rapid adjustment in the migratory flow to changes in the expected wage differential. Therefore, if the value of this differential drops sharply as occurred after 1974, the withdrawal effect

analyzed above will likely include a large proportion of Paraguayans leaving the market.

To the extent that these results are representative of the behavior of all migrants (both domestic and from adjacent countries), it can be concluded that the migratory effect is in fact a significant component of the withdrawal effect.

4.2. Sectoral Distribution of Employment

Two sectors are defined: the tradable sector includes agriculture, mining, manufacturing, and energy; the non-tradable is the aggregation of construction, commerce, transportation, finance, and other services.

The evidence arising from Table A.5 clearly shows the magnitude of the early tertiarization of the economy and its later evolution. The share of employment in commerce and services was almost 50% of total employment in 1940 and more than 50% in 1980. Construction, the other non-tradable activity, tripled its proportion of total employment in the same period. As a whole, the non-tradable sector gained 69% of new employment registered between 1947 and 1960, 85% of that between 1960 and 1970, and 87% of the increment between 1970 and 1980.

On the contrary, employment in agriculture experienced a sustained decline; in the forty year period, it lost more than half of its share in total employment. Meanwhile manufacturing, mining and energy, after reaching a peak in 1947, returned to its original level of 1940.

This process was reinforced by the nature of the welfare policies adopted by the country. They created a system of subsidies which, instead of complementing the income of the poor regardless of where they lived, consisted

in the free-of-charge provision of public services to people living in Buenos Aires and other cities, regardless of income.

Legal regulations of the process of nominal wage setting also contributed to this concentration of resources. Nominal wages, either determined by legal procedure for bargaining or established by the Government in periods when union activity was not allowed, were compulsory for all workers and firms in each activity throughout the country^{16/}. Therefore, differences in the relative availability of labor in different regions did not affect the level of wages. This uniformity was not substantially affected by the wage drift usually paid in many activities.

The result has been to preclude the existence of a significant level of manufacturing activities in the regional economies and the promotion of a one-way flow of migrants from these economies toward the few large urban centers.

Additionally, it can be noted that the character of tertiary activities after 1970 changed in that some of the characteristics thought to be positive, declined; while others thought to be negative increased. According to J. Llach (1977), until 1970, the tertiary sector could be considered "mature" since it was not a source of employment for redundant workers and its internal structure revealed an important presence of activities involved in the development of the economy. (See Table A.6).

Although, by in 1980 this structure did not reveal fundamental changes, some outstanding trends came to light. First, commerce increased its share of total employment in the tertiary sector and became one of the principal sectors increasing tertiary employment. The growth experienced by self-employed workers and other evidence discussed below, indicates that

mobile vendors, informal businesses, etc. are the main factors causing such an increment.

Personal services and the financial sector were the other two most important sources of growth of the employment in the service sector. Since this greater-than-average expansion occurred precisely when the economy was not growing, it should not be considered as an indicator of development as could be the case, for instance, of the U.S. economy.

In summary, the evidence suggests that until 1970 the expansion of a "mature" tertiary sector made it possible to match the rapidly growing labor supply registered in the large urban markets of GBA, Cordoba, etc. But later tertiarization of these markets, between 1970 and 1980, was not correlated with a growing labor supply because domestic migratory flows had changed, but was due to a shift of employment from manufacturing and other formal activities to the non-tradable sectors--especially those least tied to development.

4.3. Wage and Non-Wage Employment

The second of the issues identified from the figures in Table A.5 is the strong indication that tertiarization was accompanied by a significant increase in non-wage occupations in both the tradable and non-tradable sectors. The following figures give a more compact picture of this process.

As is shown in Table A.4, the relative size of employment (employment divided by total population), declined together with the drop in labor force activity rates during the period 1950-1984, especially since 1970.

However, one phenomenon that undoubtedly acted as a support for

overall employment levels was the significant shift of the employed from salaried work to self-employment, a movement that took place in each and every

Table 5

Wage and Non-Wage Employment

	1947	1960	1970	1980
Wage employment as % of total employment	75	71	74	72
	1947-60	1960-70	1970-80	1947-80
Annual Rate of Growth (%)				
Wage Employment	1.1	1.6	1.3	1.3
Non-Wage Employment	2.4	0.1	2.1	1.6

one of Argentina's principal urban areas during the period 1976-1981. Whereas in late 1974 a bit less than 19% of the total employed (in these same urban locations) were independent workers, this proportion climbed to 20.6% by late 1976 and continued upward and reached 23.7% by late 1981. In other words, at least until 1980, the self-employed sector absorbed both a growing labor force and those thrown out of work in manufacturing. Moreover, this compositional

change in labor force could not be interpreted until 1980 as a flow of marginal and unproductive persons into unsalaried employment, for the average income levels of these independent workers were higher than those of salaried workers. Even though this relationship was traditionally a bit higher than one, during the period 1976-1981 it increased sharply (differentials of 30% or more are observed in the main urban labor markets of the country in 1977 and 1978; see Table A.7). However, beginning in 1980, the relative incomes of the self-employed began to decline, and by 1981 there were identifiable elements of "excess" workers or "informality" to be found in the sector. This process of increasing informality is analyzed below.

While it is true that Argentina has a long history of relatively important and prosperous non-salaried sector, it might be expected that the Argentine level of development would be accompanied by a falling proportion of self-employed. Certainly, any policy designed to raise productivity and efficiency would be expected to channel employment into the wage-earning sector and goods-producing activities, not away from them. The general pattern of change in the sectoral structure of the labor force during the process of development suggests that an increase in GDP per capita is associated with a decline in agriculture's share of the labor force and a proportional increase in industry's and services' shares (see for example Chenery and Syrquin 1975). In turn, such an increasing services' share in total employment is associated with the growth in demand for non-traditional services, i.e., services which are demanded as the economy develops.

But results are different for Argentina. Leaving aside the decreasing trend in agricultural employment already mentioned, what matters now is to see what happened with employment in industry and services. It must

be remembered that: a) the Argentine economy registers a long-run stagnation, and b) the expansion of the service sector was mainly the result of the growing importance of those services least tied to development. If for the period 1947-80 wage employment is taken as a proportion of total employment and is correlated with GDP per capita the result is not statistically significant; therefore, it can be said that the elasticity of wage employment with respect to GDP per capita is equal to zero. Furthermore, if only wage employment in manufacturing, mining, and energy is taken, this elasticity is negative (equal to $-.15$ and statistically significant). By contrast, employment in the non-tradable sector (construction and services both with a high rate of non-wage employment) is highly correlated with the evolution of GDP per capita ($R^2 = 0.86$) and the resulting elasticity is positive and significantly different from zero (equal to 0.47).

In summary, the growth of the economy was more related to employment in services and construction than to the production of tradables. As a result of this, it was also more related to the expansion of non-wage rather than wage employment.

Another way of looking at this process of the growing importance of non-wage employment is to disaggregate total employment in the two broad categories "formal" and "informal". The latter is defined as that associated with small economic units (less than five employees in the Argentine case) and with income levels below the "poverty line".

Conclusions derived from a previous study indicate that, according to what is observed in other countries where informality accounts for 30% or more of the labor force, informality was not important in the urban labor markets of Argentina in the mid 1970's. In the city of Cordoba for example^{17/}, the

number of persons dependent on informal activities was estimated to be less than 15% of the city's economically active population (EAP). About 91% of those in the informal sector were self-employed and only 9% were wage-earners.

But this relatively favorable situation deteriorated sharply during the second half of the 1970's and the early 1980's. In Sanchez et. al. (1986) it is found that the proportion of informals in the total labor force increased approximately 32% between 1974 and 1983 and represented approximately 20% of the EAP by this final year.

5. WAGES AND EMPLOYMENT

5.1. Factors Operating on the Demand Side

It was mentioned above that, until 1970, the expansion of a "mature" tertiary sector made it possible to match the rapidly growing labor supply registered in the large urban markets of GBA, Cordoba, etc. But later tertiarization in these markets, between 1970 and 1980, was not correlated with a growing labor supply because domestic (and from adjacent countries) migratory flows had changed. Instead, it was due to a shift of employment from manufacturing to the non-exportable sectors, especially those least tied to development.

Therefore the economic changes that occurred in this decade introduced, in turn, profound changes on the demand side of the labor market. This became notorious after 1975 when the economic policies followed by the country caused very large shifts in relative prices. These changes discriminated against the potentially-exportable sector of manufacturing and

avored non-tradable activities.

No sector was more affected by the newly adopted economic policy than manufacturing. Having enjoyed a high margin of effective protection from foreign competition for decades, the sector's oligopolistic position was eroded by tariff reductions and, more significantly, an overvalued domestic currency (after 1978). A more open economy (but only on the import side) made price fixing (of both goods and wages) far more difficult, and led to significant structural changes within (and without) the sector. Employment in manufacturing fell by approximately 13% between 1975 and 1985.

An open economy accompanied by a long adjustment period during which the "law of one price" is not fully operating is likely to generate labor market disequilibria, a domestic currency valued higher than a level which produces full employment, and nominal wage increases larger than price increases of tradable goods. This latter phenomenon, in conjunction with an overvalued peso, generates what Corden (1981) has labeled a "squeeze on tradables".

If opening up the economy to international competition forces labor productivity increases larger than wage increases, this will naturally reduce the wage cost per-unit. The rise in unemployment (or, in the Argentine case as was seen before, the relatively low overall employment levels) that accompanies an overvalued domestic currency would moderate nominal wage increases. However, in the Argentine experience such productivity and nominal wage trends were not enough to avoid a tradable squeeze. This was the result of a two-fold mechanism. On the one hand, the economic opening and the ensuing foreign competition took away from the domestic producer his power to fix prices. On the other, a crucial explanation is that the 1979-1980

overvalued peso impeded the domestic producer from transferring increased wage costs to final product prices. At the same time, the internal market for domestically produced goods was being decreased in size as consumers turned toward imports which they perceived as less expensive and of better quality. Under such circumstances, in order to remain competitive, the domestic producer should have reduced unit costs and improved product quality. There are two main alternatives with respect to reducing wage costs: the generation of labor productivity gains and/or the acceptance of lower profit margins (or lower returns to total capital).

Apparently, the impossibility of reducing production costs set a floor below which internal product prices would not or could not fall. In addition to acting as an impediment to domestic-external price convergence and to controlling inflation, this cost floor had recessionary consequences. Producer price policy (and flexibility) was limited to the boundaries set by the cost floor at the lower end and the externally determined price ceiling at the upper end. As a result, domestic manufacturing output declined given the juxtaposition of falling profit margins (the squeeze on tradables) and the lower internal market shares.

The recessionary effects of this tradable squeeze were quite significant. Defining wage cost as the ratio between the nominal per hour wage paid in each manufacturing group and the corresponding wholesale product price, in the overall manufacturing sector this cost rose by some 56% from the last quarter of 1980^{18/}. As indicated above, this real wage cost increase might have been compensated for, at least in part, by labor productivity gains. However, it was found that for the overall sector and for nine of fourteen sectoral groups these gains were not large enough to prevent a fall

in the ratio between the return to total capital and value added. Given that the return to total capital is defined as the sum of the returns to owned capital plus outside capital, such a fall combined with rising financial capital costs most probably resulted in zero or negative profits.

It would be expected that declining profits are associated with declining output. A behavioral equation that attempts to explain manufacturing output as a direct function of profits was developed, with profits defined by a proxy consisting of the ratio of wage costs (w equal to W or nominal industrial wages over P or industrial prices at wholesale level) to productivity (q, equal to industrial production Q over man-hours H):

$$Q = a \left(\frac{W/P}{Q/H} \right)^b \quad (1)$$

$$\ln Q = \ln a + b \ln (w/q) \quad (2)$$

This logarithmic function was derived for the overall sector and for each one of the 14 component groups. In those component groups in which productivity gains did not compensate for rising wage costs (which translates into falling profits), the regression coefficient indicated a negative relationship ($b < 0$) between output (Q) and wage cost (w) divided by average hourly productivity (q) (See Table A.18).

It is concluded that the estimates obtained validated the recessionary effect of the wage cost-labor productivity hypothesis; i.e. they lend empirical support to the tradables squeeze postulate. The final result was therefore a process of deindustrialization and a transfer of resources to the tertiary sector of the economy.

5.2. The Operation of the Trade Balance/Domestic Growth Trade-Off

It was seen in above that the lack of sustained growth, as well as the unstable nature of wages and employment are closely related to the trade balance/domestic growth trade-off and the wage-exchange rate policies usually applied by governments in order to enlarge the size of domestic markets (i.e. letting the exchange rate to lag behind the wage rate). That is, the operation of the trade balance/domestic growth trade-off implies relative prices in disequilibrium which are the cause of the wage and employment problems analyzed before.

Therefore, things can be put together by means of a disequilibrium model. According to this theoretical framework, there might be excess demand or excess supply in the labor market. Excess supply could be eliminated by a demand increase in the goods market (Keynesian unemployment) or by a fall in the real wage rate (classical unemployment). But also, excess demand in the labor market can be associated with excess demand in the goods market (repressed inflation). These are the well-known regimes defined by Malinvaud (1977).

Having in mind the previous analysis, the argument would be: Given the low productivity of capital typical of the Argentine economy^{19/}, a government endeavour to achieve a higher rate of growth suggests a demand for employment that may exceed its available supply (repressed inflation) and a positive shift in the labor supply schedule by increasing the real wage. Through the operation of the trade balance/domestic growth trade-off, in the short-run, this could imply a real wage above that which secures a balanced current account; at the same time, it signals the end of a period of

prosperity and the beginning of a recession. Summarizing, a repressed inflation regime is followed by a Keynesian regime. The government has also affected the size of the labor market by means of the wage-exchange rate policy. Therefore it would not be surprising to find an overall predominance of the repressed inflation regime. This would be also consistent with the almost unlikely appearance of the classical regime.

A model of this type was estimated for the period 1950-1984^{20/}. Table A.9 shows the regimes predicted by the model as well as a set of indicators which help to compare these results with those expected from the above argument.

The period 1951-1955 is classified under the repressed inflation regime heading^{21/}. For this period, GNP growth, real wages, and labor force participation rates were high (the latter was 45.5% on average). Favorable demand conditions brought the unemployment rate to 4.8% which could be considered as the minimum feasible rate of frictional unemployment given the market conditions. Later on, in the period 1956-1974, Keynesian and repressed inflation regimes alternate in their appearance. The repressed inflation regimes were mainly the result of expansionist aggregate demand policies. In Table A.9 it is observed that during the repressed inflation periods both consumer prices and the exchange rate lagged behind the nominal wage rate, while at the same time GDP experienced large increases. The opposite happened in the "Keynesian" periods, i.e. "disequilibrium" wages tended to be corrected and the level of economic activity was depressed. Finally, in the period 1975-1984, GNP growth was almost negligible (.3% on average and negative in per capita terms) and the level of unemployment fell as the result of a falling labor supply (labor force participation was below 40%). Therefore,

for the prevailing low levels of productivity and labor supply, there was excess demand in the labor market, i.e. a situation of repressed inflation.

The period 1970-1974 is classified as a classical regime. GNP growth was 3.8% on average and real wages increased by 4.7%. The labor force participation rate on the contrary, fell from 44% in 1970 to 40% in 1974, and the unemployment rate was at a high average of 5.4%. A high unemployment rate resulting from a real wage above its long-run sustainable level is in agreement with earlier results on the subject. As pointed out before another study, (Sanchez, 1982) included a static simulation exercise to determine the levels of employment, labor force, and real wages that would come about on the assumption of a 4% GNP annual growth rate beginning with the first quarter of 1970 and ending with the same quarter of 1981. Until 1975 there were no significant differences between actual and simulated real wages as well as between actual and simulated labor supply; however, after 1975 simulated wages and labor supply grew faster than their corresponding actual values. Neither changes in wages nor in the size of the labor force were needed to satisfy an increase in demand for labor in the period 1970-1975. Thus, present results (classical unemployment) are consistent with this evidence; on the contrary, the second period (from 1975 on) is consistent with a repressed inflation regime.

Therefore, given the situation of trade balance/domestic growth trade-off, the implementation of wage-exchange rate policies led to price disequilibria between the tradable and the non-tradable sectors. This, in turn, caused the "go-stop cycles" observed in Figure 3. Even though the short-run real wage increases could have been "financed" by an also increasing average labor productivity deflated by the FTT (see Figure 3), this implied

relative price disequilibria (repressed inflation) which ended up in periods of reduced economic activity. During the down swings, both real wages and average labor productivity decreased (Keynesian unemployment; see Figure 3).

Therefore, in the long-run there seems to be no sustainable real wage increases larger than those experienced by the average labor productivity deflated by the FTT.

6. CONCLUSIONS AND POLICY IMPLICATIONS

Sluggish growth over the long-run and large fluctuations are the two most obvious characteristics of the evolution in real wages. This sequence of short periods of ups and downs in the real wage level is a dramatic manifestation of a permanent conflict between the poor long-run Argentina's growth performance and the nature of the policies implemented in order to increase wages, i.e. the wage-exchange rate policies.

Such wage rigidity is the result of a set of structural characteristics of the Argentine economy. These characteristics are hindering the possibility of having internal equilibrium (price stability and full employment) and external equilibrium simultaneously. Keeping the foreign sector in equilibrium requires a low level of economic activity and, consequently, a low level of real wages and employment. But if the policy goal is to promote economic growth and to raise real wages, the foreign sector situation operates rapidly as an obstacle to growth and such, so policies fail. At the same time, the systematic implementation of this wage-exchange rate policy implied relative prices and relative wages which have contributed to the concentration of resources in the non-tradable sector of the economy.

This is an obvious impediment to growth both in the short-run and the long-run.

Therefore, the change in relative prices necessary to obtain a given increase in the average wage becomes greater with the passing of time. Inflation is an expected outcome.

Argentina's recent economic history provides strong support to this conclusion. During 1984, first year of President Alfonsin's administration, the Argentine economy witnessed a new attempt to increase real wages by means of a wage-exchange rate policy. The overvaluation of the domestic currency which this policy required led to a structure of relative prices which eroded both the foreign sector situation and the profit share in value added. The exchange rate lagged behind average wage, and industrial prices followed a similar pattern (i.e., product-wage went up). Since average labor productivity did not increase, this change in relative prices caused a lower share for profits in industrial value added (Figure 4).

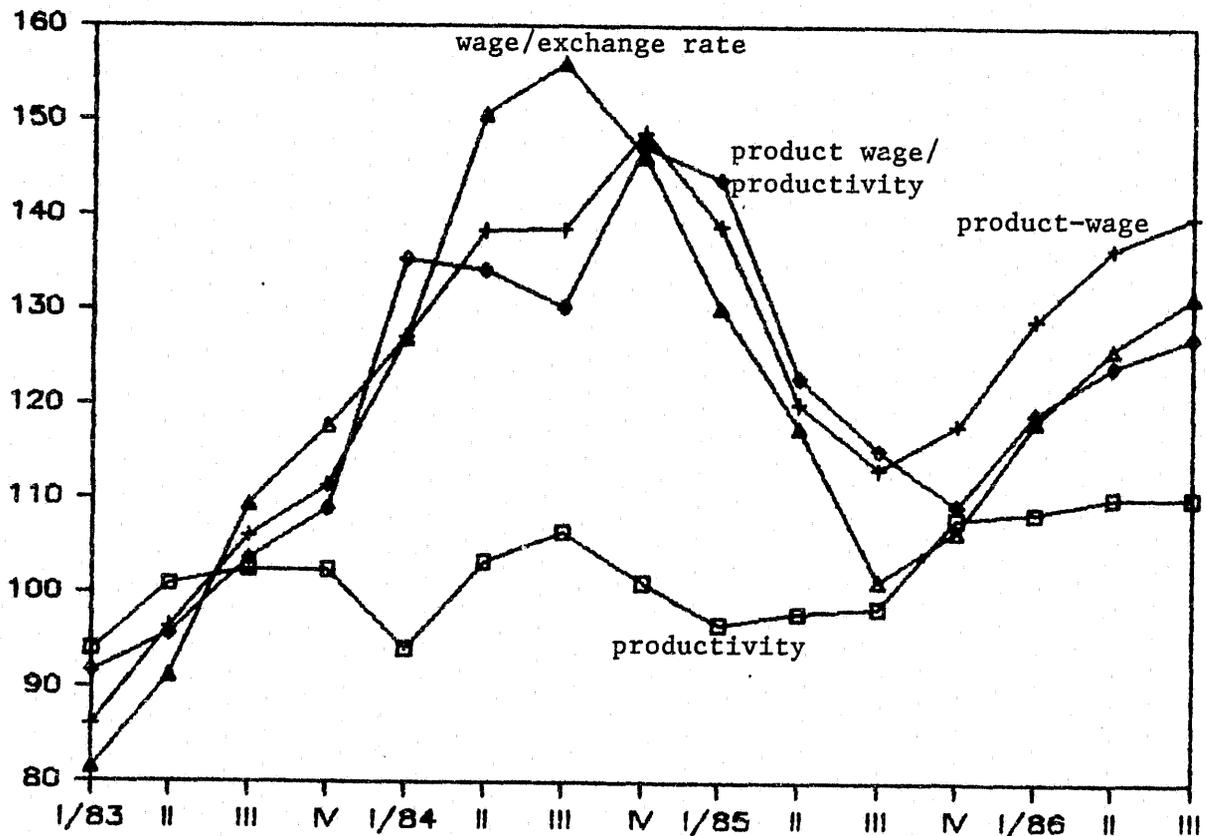
After ten months this policy had to be abandoned. From November 1984 to June 1985 relative prices changed sharply in the opposite direction, i.e. wages lagged behind industrial prices, the exchange rate, and consumer prices (Figure 4). This change in relative prices caused a sharp drop in both the level of economic activity and real wages. At the same time, inflation accelerated rapidly in the first half of 1985, reaching a monthly rate of 30 percent in June. The economy was close to hyperinflation.

It became evident that a shock treatment was required in order to reduce sharply the accelerating rate of inflation. On June 14, 1985, the government implemented an anti-inflationary stabilization program called the Austral Plan. This plan was a shock treatment aimed at reducing both

"inertial" inflation and the fiscal deficit.

By the end of 1985, inflation was under control (the monthly inflation rate was 1.9 percent in October and 2.4 percent in November), and

Figure 4
Relative Wages and Average Labor Productivity in
the Industrial Sector (Index, base 1983 = 100)



Source: Estimated by the author from IEE Rai Data Base.

both the economy and the real wage began to grow again. But this growth process rapidly faced the trade balance/domestic growth trade-off. From October 1985 to July 1986 real wages grew faster than the exchange rate and the industrial prices. As a result, the product-wage increased more than average labor productivity (see Figure 4). Consequently, profit share in value added might have dropped again.

A resurgence in inflation came up as a result, and the government was forced to implement monetary and wage policies aimed at reducing economic activity. Summing up, given Argentina's present economic organization, a growing real wage is incompatible with both internal and external equilibrium.

Consequently, the solution to labor market problems would be served better if directed towards solving the structural problems--such as the anti-export bias, goods market organization and performance, including the regional markets, and the low productivity of capital--rather than by means of a wage policy.

Endnotes

1/ In a similar period, 1900-04 to 1925-29, GDP per capita increased by 0.8% in Australia, 1.2% in Brazil, 1.2% in Canada, and 1.3% in the United States. See Cavallo (1986).

2/ For each one of these periods, the annual average rate of growth in GDP was, respectively, 5%, 6.6%, 6.2%, and 4.2%..

3/ According to the previous classification, Sectors I and II include agriculture, manufacturing, energy and mining; Sector III includes services and construction.

4/ $w_{II}/w_{III} = a(q_{II}/q_{III})^b e^u$

where the coefficient b can be interpreted as a constant elasticity coefficient measuring the speed of adjustment of wage differentials to changes in

productivity differentials ($\dot{w}_{II} - \dot{w}_{III} = b(\dot{q}_{II} - \dot{q}_{III})$).

Due to the well-known problems existing in the measurement of productivity, government and finance are not included in Sector III. The remaining activities are construction, commerce, and transport.

5/ The wage policy followed by the government since June 1985, a part of the stabilization policy known as Austral Plan, caused a significant decline in public sector wages. Thus, the level of the relative wage w_p/w_g was approximately 1.5 in June 1986. However, this was the result of a contrasting evolution of wages in different areas of the public sector: the average private wage was 90% higher than the average wage of the civil employee, but 20% lower than the average wage paid by government-owned firms.

6/ Since 1914 population growth was not only low but it also moved at a decreasing rate until 1970 (the average annual rate of population growth went down from 3.6% in 1914 to 1.6% in 1970). Afterwards, a slight increment occurred during the period from 1970 until 1980 (the annual rate moved up to 1.8%). Aging of population was a consequence of this demographic trend and it was reflected in a decreasing labor force participation rate (C. Sanchez 1978).

7/ The population of working age PWA is here defined as the total population between 20 and 59 years of age; i.e., the age bracket for which the probability of being in the labor market, either employed or unemployed, is highest. The specific labor force participation rates are approximately 33%, 64%, and 15% for the age-brackets 14-19, 20-59, and 60 or more years old respectively; these average figures imply a decline of approximately 30% to 50% in the youngest and oldest brackets during the last fifteen years.

8/ Source: Encuesta Permanente de Hogares (Permanent Household Survey from now on PHS).

9/ The variable employment divided by total population or the aggregate employment index would reflect the general behavior of the economy. As such, its evolution should also be associated with the behavior of real wages. When employment is high, the expanding economic conditions will favor an increase in wages on top of that reached by prices. On the other hand, when there is a reduction in employment, resulting from a recessionary level of economic activity, the inverse will occur and real wages will fall. Therefore, it is possible to expect a high positive correlation between both variables.

For example, in the period from April of 1970 until April of 1978, the correlation coefficient between real wages of the manufacturing sector and the aggregate rate of employment for each city included in the study was high and positive (.79 for Buenos Aires, .79 for Cordoba, and .72 for Rosario).

10/ Males of working age are defined as primary workers; all the remaining workers would be secondary workers.

11/ However, as explained in the following section (see The Migratory Effect) changes in expected wages are also behind the demographic effect.

12/ Retirement effect = $PR_t \cdot AS_o - PR_o \cdot AS_o$
Demographic effect = $PR_o \cdot AS_t - PR_o \cdot AS_o$

where PR = participation rate and AS = age structure in moments o and t.

13/ Real wages were expressed as a function of the level of economic activity and participation rates as a function of real wages and a demographic trend variable. A simultaneous equation model was estimated by maximum likelihood with full information. The period under analysis was 1971-1981.

14/ It includes GBA, Cordoba, and Rosario, and other 24 cities where the PHS is conducted twice a year.

15/ A. Harberger (1971) and M.P. Todaro (1969).

16/ As explained in section 3.5, according to the provisions of the law the terms of the labor contract agreed to by the union and the employer are compulsory for all workers in the activity regardless of whether they are union members.

17/ See C. Sanchez, H. Palmieri and F. Ferrero (1981). Although this study is limited to the city of Cordoba, it can be considered to be fairly representative of what has happened in the rest of the urban areas of the country.

- 18/ These figures are derived from Sanchez (1981). The increased wage cost was the consequence of conditions in the labor and goods and services markets during the years 1979-1980. In the labor market, the sustained decrease in the size of the urban labor force created a situation of relative scarcity that produced a high correlation between nominal wages and the consumer price index. Non-tradable goods and services, not subject to external competition but, at the same time, forming the principal components of the basket on which the CPI is calculated, maintained a rate of price increase above that of tradables.
- 19/ Argentina has traditionally enjoyed a high investment - GNP ratio but economic growth proceeded at a negligible rate, thus most likely also the rate of return on new investment has been low, especially during the 1970's.
- 20/ See A. Arnaudo, J. Arrufat, R. Garcia, and C. Sanchez (1986) for a detailed presentation of the model.
- 21/ Repressed inflation is used here to mean here that there is an excess of demand in both markets because relative prices are not in equilibrium.

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Table A.1

Average Annual Rate of Growth (%): GDP, Value Added by Agriculture,
Value Added by Government Services, and Exports
Argentina, 1913-1984

Selected Periods	GDP	Agriculture Value Added	Non-Agric. Value Added	Government Value Added	Exports
1913-1940	2.7	2.4	2.8	3.1	1.3
1940-1953	3.2	.7	3.9	5.8	-1.5
1953-1984	2.9	1.5	3.3	1.9	4.0
1913-1984	2.8	1.7	3.2	3.3	1.9
<u>Recession Years</u>					
1913-1917	-5.3	-3.6	-6.8	3.5	-11.7
1925	-.4	-10.5	4.4	3.7	-21.2
1930-1932	-4.8	-1.2	-6.9	2.8	-2.5
1943	-.7	-12.3	4.2	2.8	1.6
1945	-3.2	-19.7	2.3	14.3	-5.8
1949	-1.3	-7.7	.0	3.1	-25.9
1952	-5.1	-14.2	-3.3	-.4	-26.6
1959	-6.4	-1.0	-8.3	1.4	4.5
1962-1963	-2.0	3.0	-3.2	.3	17.5
1975-1976	-.6	.4	-1.1	6.4	8.0
1978	-4.4	1.5	-5.4	-1.8	8.1
1981-1982	-6.0	3.6	-7.8	1.0	4.7

Source: D. Cavallo (1986), Figure 1; and R. Domenech (1986) Tables 1 and 2.

Table A.2

The Evolution of Real Compensation for Wage-Earners
(Index, 1970 = 1)

Year	Average Real Wage	Sign of the change	Year	Average Real Wage	Sign of the change
1940	.608		1963	.817	=
1941	.598	-	1964	.902	
1942	.594		1965	.984	+
1943	.617	+	1966	.989	
1944	.701		1967	.967	
1945	.663	-	1968	.919	-
1946	.641		1969	.964	
1947	.783		1970	1.000	+
1948	.925	+	1971	1.052	
1949	.933		1972	.990	-
1950	.867		1973	1.072	
1951	.820	-	1974	1.264	+
1952	.757		1975	1.237	
1953	.796	+	1976	.792	-
1954	.869		1977	.756	
1955	.845	-	1978	.772	
1956	.906	+	1979	.861	+
1957	.873	-	1980	1.000	
1958	.968	+	1981	.912	-
1959	.742	-	1982	.793	
1960	.745	+	1983	.964	+
1961	.827		1984	1.128	
1962	.817	-	1985	.978	-

+: Positive change -: Negative Change =: No change

Sources: 1940-1982, J. Llach and C. Sanchez (1984), Table 1.
1983-1985, IEERAL Data base.

Table A.3

The Evolution of Relative Wages (1940-84)

Year	$W_{I,II}/W_{III}$	W_{II}/W_{III}	W_p/W_g 1/	Year	$W_{I,II}/W_{III}$	W_{II}/W_{III}	W_p/W_g 1/
1940	.75	.90	.99	1963	.87	1.01	1.03
1941	.76	.91	.99	1964	.92	1.05	.99
1942	.76	.91	.98	1965	.94	1.05	.96
1943	.77	.90	.99	1966	.95	1.06	.94
1944	.77	.90	.99	1967	.95	1.08	.98
1945	.79	.91	.98	1968	.94	1.05	.99
1946	.79	.91	.98	1969	.92	1.02	.95
1947	.80	.91	.98	1970	.92	1.02	.89
1948	.76	.91	1.01	1971	.95	1.03	.90
1949	.80	.96	1.02	1972	.96	1.02	.89
1950	.80	.99	1.12	1973	.94	.99	.76
1951	.83	1.00	1.12	1974	.92	.97	.82
1952	.82	.98	1.13	1975	.92	.99	.84
1953	.83	.98	.83	1976	.97	1.05	.88
1954	.84	1.00	1.04	1977	.99	1.08	.87
1955	.84	1.02	1.01	1978	.90	.97	.79
1956	.84	.98	1.10	1979	.94	1.02	.86
1957	.85	1.03	1.22	1980	.89	.96	.72
1958	.86	.99	1.02	1981	.90	.97	.78
1959	.87	.96	1.05	1982	.93	1.01	.80
1960	.89	1.03	1.08	1983	.95	1.03	.85
1961	.88	1.03	1.00	1984	.99	1.07	.93
1962	.87	1.00	.91	1985	1.01	1.09	1.02

1/ Average wage in the Private Non-Agricultural sector relative to the average wage in the Public Sector.

Source: $W_{I,II}$, W_{II} and W_{III} J. Llach and C. Sanchez (1984); the years 1983 and 1984 were estimated by the author from IEERAL Data Base.

W_p and W_g , R. Domenech (1986).

Table A.4

Labor Force Participation, Employment and Unemployment Rates in the
Main Urban Labor Markets of Argentina

Year	Activity rate ¹	Employment rate ¹	Unemployment rate ²	Year	Activity rate ¹	Employment rate ¹	Unemployment rate ²
1950	46	44	4.3	1968	44	42	5.3
1951	46	44	3.5	1969	44	42	4.4
1952	45	43	4.0	1970	44	42	5.0
1953	45	43	4.8	1971	43	41	5.9
1954	46	43	6.2	1972	42	40	6.7
1955	46	43	5.8	1973	41	39	5.5
1956	46	43	6.8	1974	40	39	3.9
1957	46	43	6.3	1975	40	39	3.2
1958	46	43	7.8	1976	39	38	4.7
1959	44	42	5.5	1977	39	38	3.2
1960	45	42	5.6	1978	39	38	3.0
1961	45	42	7.2	1979	39	38	2.2
1962	45	42	7.3	1980	39	38	2.5
1963	45	41	8.9	1981	39	37	4.7
1964	45	42	6.3	1982	39	37	4.9
1965	45	43	5.3	1983	38	36	4.4
1966	45	42	5.8	1984	38	36	4.2
1967	44	41	6.4	1985	39	36	5.6

¹/ As percentage of total population.

²/ As percentage of economically active population.

Source: 1950-1962: Computed from population census data, employment data from Liach and Sanchez (1984), and the coefficients estimated by regressing the participation rate on the expected wage (wage adjusted by the employment rate or probability of employment) and a demographic component, for the period 1963-1984.

1963-1984: Data from the PHS.

Table A.5

Sectoral Employment Characteristics

Sectoral Distribution (horizontal %)						Average Annual Rate of Growth of the Employment					
Tradable Sectors		Non-Tradable Sectors				Tradable Sectors				Non-Tradable Sectors	
Agriculture etc.	Manufact. etc.	Construc.	Commerce, etc.	Total	Agriculture, etc. Wage	Non-Wage	Manufacturing, etc. Wage	Non-Wage	Wage	Non-Wage	
1940	27.1	23.3	3.6	46.0	49.6						
1947	26.1	27.2	4.0	42.7	46.7	.1		7.2		3.8	
1960	20.8	27.1	6.7	45.4	52.1	-1.6	1.3	1.2	2.2	1.9	3.6
1970	16.2	23.3	8.7	51.8	60.5	-.6	-2.1	.4	-3.6	2.6	2.8
1980	12.9	23.0	10.8	53.3	64.1	-.9	-.6	1.1	2.5	1.7	3.2

Source: C. Sanchez (1984), Table 8.

Table A.6

Employment in the Tertiary Sector: Stocks
and Distribution of Additions by Destination

	Stocks			Distribution of Additions to Tertiary Employment	
	1947	1970	1980	1947-70	1970-80
Total	100.0	100.0	100.0	100.0	100.0
Activities Tied to Development*	51.1	50.6	49.6	50.1	36.8
- Commerce	30.5	29.6	31.7	28.7	57.0
- Finance, Insurance, etc.	5.6	6.3	8.3	7.2	33.8
- Transportation by land	12.5	10.4	6.6	7.4	-41.8
- Other Transportation	1.4	2.1	1.3	3.0	-7.7
- Communications	1.1	2.2	1.7	3.9	-4.5
Social Services	7.7	16.5	15.5	28.8	3.2
- Culture, etc.	2.1	7.2	3.5	1.2	-42.7
- Health	2.0	4.0	4.5	6.9	10.5
- Education	3.7	5.3	7.5	7.5	35.4
Civil Servants	19.9	13.3	11.0	4.3	-20.6
Personal Services	21.3	19.6	23.9	16.8	80.6
- Personal	2.4	2.9	7.6	3.3	69.3
- Restaurants, etc.	4.0	3.0	3.8	1.5	14.4
- Maids	14.9	13.7	12.4	12.0	-3.1

* Available information does not allow the exclusion of mobile vendors and other informal commerce from this group. In 1947 and 1970 they represented 4.4% and 5% of tertiary employment respectively.

Source: 1947 and 1970: J. Liach (1977).
1980: C. Sanchez (1984).

Table A.7

Self-Employed Average Income Levels Relative to Average Wage Levels

Years	GBA	Cordoba	Rosario	Mendoza	Santa Fe	La Plata	Tucuman
1974	1.11	1.10	1.05	0.95	1.01	1.06	1.01
1975	0.90	0.90	0.82	0.81	n/a	n/a	0.93
1976	1.05	1.10	1.10	1.09	0.97	n/a	1.10
1977	1.28	1.16	1.47	1.16	n/a	n/a	1.33
1978	1.20	1.18	1.09	1.00	1.11	0.99	1.35
1979	1.27	1.08	1.18	0.96	1.23	1.24	1.16
1980	1.27	1.02	1.31	0.92	1.19	1.15	1.30
1981	1.11	1.03	1.12	0.82	1.03	1.12	n/a

n/a: Not available to the author.

Source: Computed from Permanent Household Survey data.

Table A.8

Estimates of the Elasticity of Industrial Production
With Respect to Wage Cost Divided by Average Hourly Productivity

	Constant Elasticity Coefficient	R ²	D.W.
Total	-1.35* (2.94)	.28	2.73
Food and Beverages	-.06 (.31)	.18	2.55
Tobacco	-.06 (.24)	.04	2.01
Textiles	3.69* (2.94)	.45	2.55
Clothing	-.70* (4.79)	.79	2.00
Wood and Products	-.50 (1.04)	.12	1.78
Pulp and Paper Products	-.36* (3.29)	.65	1.82
Chemical and Products	-1.20* (3.44)	.51	1.86
Other Chemical Products	-.10 (.47)	.43	2.72
Rubber Products	.10 (.32)	.02	1.93
Leather and Products	-.23* (2.06)	.26	1.86
Nonmetallic Mineral Products	-.20** (1.96)	.24	1.74
Metal Products	-1.19** (1.95)	.34	2.05
Motor Vehicle Industry	-1.16 (1.34)	.20	2.09
Electrical Machine	-.70* (3.28)	.61	1.74

* Different from zero at the 5% level of significance.

** Different from zero at the 10% level of significance.

() = T statistic.

Source: C. Sanchez (1981), Table 10.

Table A.9

Regime Classification and Labor Market Indicators (annual averages)

Period	Regime	Labor Force Participation Rate (%)	Unemployment Rate (%)	Wage/ Cost of Living (% of growth)	Wage/ Exchange Rate (% of growth)	GDP (% of growth)
1951-1955	RI	45.5	4.8	2.0	6.2	3.1
1956-1958	K-RI	46.2	7.0	4.5	-15.9	4.6
1959	K	44.5	5.5	-23.4	-37.9	-6.4
1960-1961	RI	44.9	6.4	5.6	23.4	7.5
1962-1963	K-RI	45.2	8.1	-0.6	-2.7	-2.0
1964-1966	RI	45.2	5.8	6.6	19.2	6.6
1967-1968	K	44.2	5.9	-3.6	-9.4	3.5
1969	RI	44.4	4.4	9.3	12.9	8.5
1970-1974	C	42.4	5.4	4.7	10.4	38
1975-1984	RI	39.1	3.7	-1.1	6.7	0.3

Note: RI: repressed inflation, K: Keynesian unemployment, C: classical unemployment. When the difference in employment predicted by the model is lower than 1% for two regimes, both are mentioned. 1972 should be identified as K-C.

Source: Taken from Arnaudo, Arrufat, Garcia, and Sanchez (1986), Table 1.

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