The Nature of Argentina's Policy Reforms during 1976–81

Jchoj Nogues
The Nature of Argentina's Policy Reforms during 1976–81

Julio J. Nogues
The most recent World Bank publications are described in the annual spring and fall lists. The continuing research program is described in the annual Abstracts of Current Studies. The latest edition of each is available free of charge from the Publications Sales Unit, Department 1, The World Bank, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A., or from the European Office of the Bank, 66 avenue d'Ilina, 75110 Paris, France.

Much of the existing literature on Argentina has emphasized the liberal nature of the economic reforms introduced during the 1976-1981 military government. A major purpose of this paper is to present evidence that contradicts this interpretation. In particular, I emphasize the implementation of pervasive government controls and argue that the intensity and instability of these controls resulted in historically high short-run fluctuations of relative prices of commodities and factors.

The paper also addresses some political-economy issues. This analysis, I hope, should help to understand better why policies were what they were. A couple of important conclusions come out of this discussion. First, the fluctuations in relative prices resulted in increased social tensions, but given the repressive nature of the government, demands put forward by different groups for taking corrective actions were simply ignored. As a consequence, the disequilibrium of the economy—which in turn was the result of the government controls—continued growing, and could last only as long as the financial community supplied the funds that were needed to finance the resulting imbalances.

A second conclusion is that the long-run economic interests of those who held effective political control were not favored by liberalization policies. As a matter of fact, the economic interests of the military were sheltered from the competitive forces faced by other parts of the economy.
Helpful comments have been received from Vittorio Corbo, Kutlay Ebiri, Jaime de Melo and Peter Wopart. I also appreciate comments from participants at the 25th Meeting of the International Studies Association (Atlanta, Georgia), March 27-31, 1984 where a preliminary version of this paper was presented.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II. Initial Conditions</td>
<td>4</td>
</tr>
<tr>
<td>III. Devaluation Episode</td>
<td>8</td>
</tr>
<tr>
<td>IV. The Changing Nature of Macroeconomic Controls</td>
<td>10</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>10</td>
</tr>
<tr>
<td>2. The unanticipated period: 1976-1978</td>
<td>10</td>
</tr>
<tr>
<td>2.1 Wage policy</td>
<td>10</td>
</tr>
<tr>
<td>2.2 Price controls</td>
<td>13</td>
</tr>
<tr>
<td>2.3 Interest rate policies, capital inflows &amp; exchange rate controls</td>
<td>14</td>
</tr>
<tr>
<td>3. The announced period: 1979-1981</td>
<td>16</td>
</tr>
<tr>
<td>V. A Quantitative Assessment of Trade Liberalization</td>
<td>20</td>
</tr>
<tr>
<td>1. Indicators of trade liberalization</td>
<td>20</td>
</tr>
<tr>
<td>2. Export barriers &amp; effective exchange rates on exports</td>
<td>21</td>
</tr>
<tr>
<td>3. Tariff policy &amp; price divergence in import-substitute industries</td>
<td>24</td>
</tr>
<tr>
<td>VI. Some Political-Economy Considerations</td>
<td>33</td>
</tr>
<tr>
<td>1. Exchange rate views &amp; policies</td>
<td>35</td>
</tr>
<tr>
<td>2. Policy segmentation, administrative rules and inter-agency disputes</td>
<td>39</td>
</tr>
<tr>
<td>3. Trade liberalization &amp; the military industrial complex</td>
<td>43</td>
</tr>
<tr>
<td>4. Role of Institutions</td>
<td>45</td>
</tr>
<tr>
<td>VII. Final Remark</td>
<td>47</td>
</tr>
<tr>
<td>Statistical Tables</td>
<td>49-51</td>
</tr>
<tr>
<td>Bibliography</td>
<td>58</td>
</tr>
</tbody>
</table>
I. Introduction

The purpose of this paper is to present a critical overview of policy reforms implemented in Argentina during 1976-1981. Argentina's attempt with these reforms, which many have interpreted as liberal policies, failed. This failure has been taken as an argument by many people not only in Argentina, but also in other developing countries of why liberalization policies should not be attempted.

Any given set of policies can fail for several reasons. A necessary condition for policies to be successful is that they be internally consistent and credible. On the other hand, if policies depart radically from past trends, then it is very likely the case that old administrative arrangements for managing and implementing them will have to be adapted to the new conditions. Finally, policies can fail because the political arrangements to manage powerful pressure groups that stand to lose are in some sense inappropriate.

The thesis of the paper is to argue that on each of these dimensions, Argentina's economic policies had important shortcomings. The paper spells out the nature of the major economic reforms, and also presents some thoughts on the policy decision mechanism and the political economy that accompanied these reforms. These thoughts, I hope, will help to understand better why policies were what they were. I also analyze in this paper the effects of these policies on absolute and relative prices, but I do not
discuss the impact of these changes on quantities, i.e., on the real structure of the economy. 1/

Section II is a brief analysis of the initial economic conditions prevailing before the shift in political power that took place in March of 1976. Section III presents some brief comments on the 1976-77 devaluation episode. Such a devaluation was necessary for restoring equilibrium in the balance of payments and eliminating many of the controls used during the period of severe payments imbalances. Despite the good start with exchange rate policies, very soon policymakers became concerned with the pervasive inflationary trend of the economy. The initial response to this problem was not different from the traditional one, i.e., the implementation of macroeconomic controls for stabilization purposes. Section IV describes these controls and the effect they had on absolute and relative macro-prices. The point here is to argue that the set of macro-policies adopted during these years were inconsistent with the publicized government objectives of liberalizing the economy.

In a very uncertain macro-environment, some policies leading to lower import barriers were implemented. Section V analyzes the extent, depth, and appropriateness of these policies. When viewed in isolation, these policies had important shortcomings. Many politicians and economists have attributed the costs associated with import penetration and the huge 1980 trade deficit to these import liberalization policies. A point of this section is to emphasize that import penetration was the result of currency.

1/ Corbo, et al (1985) presents a survey of findings related to the liberalization episodes in the Southern Cone including effects on the real economy.
overvaluation as well as lower import barriers. I also emphasize here how
trade policy instruments were used to achieve different government
objectives. This in turn led to policy instability and increased uncertainty.

Finally, section VI presents some preliminary thoughts on questions
referring to administrative arrangements and some characteristics of the
underlying political-economy. In this section I make four points. First, the
underlying exchange rate models of the period under study differed quite
dramatically from the one which some authors have used to interpret the
economic events during the previous Peronist government. 1/ Nevertheless, the
natural tendency to use the exchange rate as an anti-inflation instrument did
not disappear. In a sense, economists' models have not been able to sell to
the Argentine body politic the importance of following "realistic" exchange
rate policies.

Second, the tariff and exchange rate rule which characterized the
last two years of the economic program put important constraints on policy-
makers that were in different government offices and managing different
instruments. This led to strong inter-agency conflicts which were at the
government level the reflection of social tensions that developed from
inappropriate macro-policies. Because of the dictatorial form by which,
economic policies were designed and implemented, these tensions could not be
addressed appropriately, and as a consequence corrective actions were
(stubbornly) delayed.

The third point is simple but a very important one. The managers of
a liberalization attempt should ideally be free of the economic interests and

1/ See Canitrot (1979).
pressures associated with highly protected and inefficient industries. An important part of the manufacturing sector is the property of military industries. Here I show how, by resorting to quantitative restrictions (QRs), these industries managed to escape the pressures to adjust to increased import competition that was being imposed on many other industries.

In the final point I stress the importance of institution-building that should accompany a liberal policy reform.

II. Initial Conditions

During 1975, the Argentine economy was once again suffering the consequences of populist-protectionist policies. Expansionary government policies and a reduction in public revenues led to a fiscal deficit that was in the neighborhood of 15% of GNP. This implied an increase of 100% from the 1974 figure, and in spite of generalized price controls, the annual inflation rate measured by the wholesale price index (WPI) reached a record high of 192%. 1/

By 1975, the wage-price agreements reached by labor unions and entrepreneurs in 1973 and enforced by governmental controls had broken apart. Di Tella, who was a prominent member of the economic team in 1975, also gives to inter-sectoral conflicts a central role in explaining inflation: "... The attempt by different groups of workers to maintain their relative position ... were the principal cause of inflation" and "... Each

---

industry tried to increase the prices of their products through higher import
tariffs and lower tariffs on their imported inputs." (Di Tella, 1983, p. 269). To a great extent, the public sector deficit was a reflection of the
incapacity of the leadership elite to manage pressures put forward by
different groups.

This inflationary trend plus errors in designing and managing
exchange rate policies led to an increasing overvaluation of the domestic
currency. The extent of this overvaluation can be assessed from data
presented in Table 1, which shows alternative exchange rate measures (column 1
through column 8), for the period 1969-1981. By 1975, and in relation to 1969
(a year for which there is every reason to believe that the exchange rate was
at an appropriate level 1/), the real exchange rate (column 8) had declined
33%. 2/

The currency overvaluation increased excess demand for foreign
exchange. These pressures on foreign exchange markets were initially con-
fronted with traditional methods of drawing down reserves, and also increasing
the degree of restrictions on international transactions. In December 1974,

---

1/ In controlled exchange rate economies, it is impossible to know how close
the official rate is to the equilibrium rate. Nevertheless, there are some elements backing the assertion in the text. First, a black market quotation in line with the official rate is an indication that no significant excess demand on foreign exchange markets was present. Second, performing a PPP evaluation of the 1969 official exchange rate using years in the early 60s when the exchange rate was floating shows that they are similar (Nogues, 1985). Also note in Table 1 that in 1969 the trade balance was very close to equilibrium.

2/ Alternatively, using 1969 as the base year, a simple purchasing power parity estimate (PPP) of the exchange rate (column 3) shows that in 1975 this value was 49% higher than the rate implicit in import flows (column 2). See Officer (1976) on PPP exchange rates.
international reserves were US$1.3 billion. One year later, they were down to
US$.6 billion. This was mainly as a consequence of a sharp increase in the
trade deficit, which in 1975 was equivalent to 33% of exports. This deficit
in turn resulted from a significant decline in exports of both traditional
(mainly primary goods), and non-traditional (mainly manufactured) goods. 1/

As excess demand pressures on foreign exchange mounted, authorities
increased the restrictionist character of the trade and payments regime. The
arsenal of controls introduced and/or reinforced at that time included tight
Central Bank controls on international payments, increased reliance on
quantitative restrictions and import licenses, increased numbers of goods in
lists affected by outright import prohibitions 2/, previous import deposits,
multiple exchange rates, etc, etc.

Controls on domestic capital markers were equally severe. Peso
denominated deposits were subject to a 100% reserve requirements and credit
allocations were centrally planned by the Central Bank. Controlled nominal
interest rates resulted in significantly subsidized real interest rates. The
nominal official savings interest rate was 17.5% in 1975, which compares with
an inflation rate of 183% according to the consumer price index (CPI). These
differentials represented a record high.

1/ According to Central Bank statistics the decline was 23% and 29% for,
traditional and non-traditional exports respectively. Nevertheless,
caution should be taken when interpreting official trade statistics in an
economy where the black market exchange rate (Table 1, column 4) is
significantly different from the official commercial exchange rate.

2/ The Guía Práctica del Exportador e Importador (different issues) includes
a detailed listing of the payments and import controls that were
implemented during the Peronist government. Restrictions on international
payments are listed in the Memorias Anuales del Banco Central.
Not surprisingly, the ratio of M2 to GNP dropped from 25% in 1972 to 17% in 1975. This represented a record low. Quotations in the black market for foreign exchange soared. On an annual basis this quotation was during 1974, 83% higher than the implicit import rate. During 1975 the average differential increased to more than 300% (Table 1, columns 2 and 4). This came close to being an historical record that has only been surpassed by trad and payments distortions observed in the early 50s. 1/

More generally, black markets of an increasing number of marketable products also developed rapidly due to the severity of price controls. Scarcity margins have unfortunately not been documented, but the lengths and number of the queues that Argentines had to make in order to obtain essential consumer goods at controlled prices will not be forgotten.

Although not easily documented, it is reasonable to hypothesize that problems for obtaining crucial imports of intermediate inputs must have developed. Given that Argentina started its payments problems from a closed economy position, it could only curtail imports that were already essential. These correspond with intermediate and capital goods imports which, in general, are used in productive processes of the manufacturing sector.

1/ It is also not far from being an international record. See Krueger (1978), Table 6.4, for a cross-country comparison of black market exchange rates, prevailing before a devaluation episode. In this table, out of 17 observations, only two presented a greater discrepancy between official and black market rates than the estimates presented for Argentina.

2/ Imports of consumer goods represented 3.7% and 3.3% of the import bill during 1974 and 1975 respectively.
On the demand side, and in addition to the decline in exports (Tab 1, column 9), real wages stopped rising, and the unemployment rate began increasing. Therefore, it might be asserted that both supply bottlenecks and demand considerations help to explain the negative growth rate of -1% observed during 1975.

III. Devaluation Episode

In late March 1976 the Peronist government which had been democratically elected was overthrown by a military coup. The objective economic liberalization was emphasized by the new economic minister in his inaugural speech.

Several policies implemented during the initial months aimed in the direction. First, the process of real devaluation which had started during the last months of the Peronist government was deepened and on average, the real exchange rate increased 24% during 1976 (Table 1 column 8). The quick response of exports to the higher real exchange rate and reduced rate of

1/ According to official statistics and using the CPI, real wages of unskilled workers were 7% higher in 1975 than in 1969, and did not change relation to 1974 (Table 2).

2/ The corresponding rate for the manufacturing sector was -3%.

3/ In this month the WPI inflation rate reached an historic mark of 54%.
export taxation allowed a fast reduction of exchange controls. 1/ Also, the differentials among the relevant multiple exchange rates were gradually reduced, and in December of 1976 the Central Bank implemented a unified exchange rate regime.

Partial dismantling of quantitative restrictions on imports was also undertaken. This, to a great extent, represented a reduction in the number of goods on the import list affected by outright import prohibitions which, as said, were part of the policy package designed to cope with balance of payments problems during 1975. 2/

The gradual liberalization of the payments regime was accompanied by almost total removal of price controls in domestic markets. The decision, given the severity of the controls, cannot be sufficiently emphasized.

All this helped to restore the confidence on the market mechanism which had been severely damaged. Perhaps, because of this initial move, many observers have characterized economic policies of the military regime as being liberal. In what follows, I show evidence that casts serious doubts on the extent to which Argentine economic policies during these years can be classified as liberal. In essence, the stagnant behavior of the economy after 1976 and the failure of the new economic policies must be attributed to the pervasive effects of inappropriate government controls.

1/ See Memorias Anuales del Banco Central. Some of the increase in recorded exports could be attributed to lower margins of underinvoicing as export taxes were being reduced and the difference between the black-market and the official exchange rate was narrowing.

2/ It is important to stress, that these initial changes did not represent a significant departure from the structure of QRs that had characterized the Argentine economy since at least the early 60s. In particular, as will be discussed, the regime of import licenses was not modified.
IV. The Changing Nature of Macroeconomic Controls 1/

1. Introduction

The Economic Minister that came to power in March of 1976 concluded his administration in March 1981, when the President was also changed. For analytical purposes, it is useful to divide this period into two subperiods. The first extends from March 1976 to the end of 1978. I call this the unanticipated period, because in relation to the second period, economic policies were highly unpredictable, and not announced in advance. The second period extends from the end of 1978 to March 1981. This is the period when exchange rate and tariff policies were preannounced, and I have therefore labeled it the preannounced period.

2. The unanticipated period: 1976-1978

2.1. Wage policy

From 1976 to late 1978, there existed at different points in time severe controls on one or more of the following variables: wages, interest rates, prices, and probably the most important of them all, on the exchange rate.

Initially after the coup, the decision to liberalize domestic markets and eliminate the regime of price controls was accompanied by the imposition of severe wage controls. According to official statistics, during...

1/ Since this paper was completed in late 1983, several articles analyzing the economic policies and economic performance of the military regime have been published. These include among others Calvo (1985), Dornbusch (1984), and Fischer et al. (1984).
1976 these controls resulted in a record reduction of real wages that for relatively unskilled workers was 49% in relation to 1975 (Table 2). These wage controls put the real wage well below historical levels.

After the wage freeze had been imposed, the monthly inflation rate measured with the CPI which had reached a record high of 38% in March of 1976 showed the following trend: 34% in April, 12% in May, and 3% in June. Given that price controls had by then been eliminated and a process of real devaluation was taking place, it is difficult to explain such a drastic reduction in the inflation rate without relating it to the wage freeze.

The wage freeze distorted the underlying trend inflation rate for a short time. This in turn confused policymakers, and the subsequent rebound of inflation was taken by many as a first failure of the economic team to stabilize the price level. This then led policymakers to implement new controls. This experience therefore suggests that, in addition to the well-known negative economic effects of wage controls, maintaining relatively free labor markets during a stabilization attempt would have provided more accurate signals to policymakers regarding the macroeconomic impact of the new set of policies.

Why were wage controls imposed? A popular hypothesis has linked these controls to government objectives regarding unemployment. The social
and political tensions of that time 1/ should not, according to a hypothesized official view, be permitted to increase. It was feared that labor unrest could be triggered by increased unemployment. Therefore, reducing real wages while at the same time maintaining high legal layoff costs, would help to hold employment levels and keep the unemployment rate low. 2/

An alternative but non-conflicting hypothesis is that just as price controls had been used by the previous government, the new economic administration resorted to wage controls as an anti-inflation device. If so, the conclusion is that the shift in the structure of political power led the government to change the group whose economic behavior was directly controlled.

The wage freeze was gradually relaxed and apparently was not binding after 1977. 3/ Nevertheless, while the labor market was gradually freed from

1/ It is important to recall that strong labor unions and the leadership which they held within the labor movement provided the main political base of the Peronist government. Therefore, the power of labor union leaders gained momentum during these years. Certainly one of the political objectives of the coup was to break the political and economic power of these unions. The leaders that could not escape were imprisoned without trial for years. Also, the economic activities of these unions were terminated.

2/ The implicit assumption regarding social behavior is that labor unrest would not develop from low wages. This, in fact, occurred but the reason is to a great extent also related to the repression that was taking place at that time. Official statistics show that the open unemployment rate in the major industrial areas declined during 1976. In Gran Buenos Aires, Cordoba and Rosario, the open unemployment rates declined from 4.8%, 6.5% and 5.3% in April to 4.1%, 5.4%, and 2.6% in October. On the other hand, manufacturing output declined between the last quarter of 1975 and the first quarter of 1976. The behavior of these variables is in line with the hypothesized expectation of government officials in regard to the effects that the wage freeze would have on employment levels.

3/ See, for example, Meier et al (1977).
direct government interferences, significant taxes on wages were maintained during practically the whole period. Elsewhere I have shown that in 1973 the implicit tax rate on wages was equivalent to 22% of gross wages. 1/ These distortions, which had grown during the initial months of the Peronist regime, were only reduced towards the end of 1980 when the collapse of the economic program was evident. 2/ Clearly from a resource-allocation point of view, it would have been preferable to reduce labor costs by reducing these taxes as an alternative to having frozen wages. 3/

2.2. Price controls

As said, after June 1976 the inflation rate began increasing and according to the WPI reached a monthly rate of 14% in January 1977. This led policymakers to reintroduce price controls which, as said, had been abolished in the early months following the coup. These controls were implemented from February - less than a year from the date they had last been abolished - to July 1977. They were rigorously enforced with relatively big enterprises in the manufacturing sector. While these controls were lifted in July and were not reintroduced thereafter, they clearly compounded the negative economic effects of the wage freeze. Summing up, between 1976 and 1977 the military government introduced severe wage and price controls.

---

1/ Nogués (1985).

2/ A reform of the value added tax (VAT) was implemented in October of 1980. Along with this reform several taxes on wages were eliminated.

3/ Obviously, together with this policy shift, other less distortionary taxes and/or reduced government spending measures should be implemented.
2.3. **Interest rate policies, capital inflows and exchange rate control**

By the end of 1976 the process of exchange rate unification and real devaluation had been completed. Following liberalization of exchange controls, the Central Bank implemented a monetary reform. The regime of 100% reserve requirements for peso deposits, direct credit allocation and controlled interest rates was substituted by one of fractionary minimum reserve requirements in a context of nearly complete freedom of interest rates. 1/ It is of interest to emphasize that this financial liberalization was introduced at the same time when wage-price controls were enforced. It is difficult to rationalize this inconsistent policy behavior.

Real interest rates increased significantly (Table 2). These interest rates, coupled with the liberalization of the capital account of the balance of payments fueled short-term capital inflows, which together with positive trade balances, increased foreign exchange reserves. These reserves went from US$1.8 billion in 1976 to US$4.0 and US$8.0 billion in December 1977 and 1978 respectively.

Probably because the inflation rate continued to be high in a situation of increasing foreign exchange reserves and trade balance surpluses, economic authorities led by the Central Bank decided to reduce the rate of devaluation during 1978. This policy was not announced in advance, and

1/ It is usually overlooked that interest rates for financing non-traditional exports were never eliminated. This control implied high interest rate subsidies per peso exported. (Nogués 1983).
implied a radical departure from the policy followed during 1977 of maintaining relatively constant the real exchange rate. 1/

As seen in Table 1 (column 3), the real exchange rate dropped 14% during 1978. In addition to its effects on the price level, another objective of the new exchange rate policy during 1978 was to create exchange rate uncertainty. It was thought at the Central Bank, that this uncertainty would reduce incentives to capital inflows due to the high level of domestic interest rates.

It should be stressed, and this is important to emphasize in order to understand what was going on, that instability in the rates of minidevaluation was a policy favored by the strong beliefs held by Central Bank decision makers regarding the lack of effectiveness of direct controls on capital movements. 2/ Clearly an important dilemma was being faced at that time by policymakers in the Central Bank. They perceived capital inflows as being inflationary, and financial controls to be ineffective. Unfortunately, such a priori thoughts which help to understand the nature of policies implemented during 1979-81 have been very costly. I now turn to a brief description of these policies.

1/ By then, Argentina had repaid its loans to the IMF.

2/ For example, Arriazá (1983), has asserted that: "...It is possible that for some countries the answer (to the question of whether capital movements can be controlled) would be positive but in my opinion not for Argentina...."

As said, after the liberalization of nominal interest rates in June of 1977, real interest rates remained abnormally high during 1978 (Table 2). Unfortunately, the level of interest rates during this period remains as yet one of the most important unexplained effects of the economic program. It is true that not all barriers to international capital movements had been lifted. But it is doubtful that those remaining could go a long way in explaining the difference between domestic and international interest rates, in presence of high mobility of short-run financial capital. Part of the explanation of high real interest rates must be attributed to government deficits, which as a proportion of GDP were 3.20% and 3.75% during 1977 and 1978 respectively. These deficits were financed by borrowing.

An hypothesized view suggests that preannouncements of the future path of the exchange rate was seen as the solution to several economic problems. First, preannouncement of a declining rate of devaluation would dampen inflationary expectations, thus helping to impart a downward trend on the rate of inflation. It was also thought that preannouncement would reduce uncertainties associated with a managed exchange rate policy and therefore help to reduce real interest rates.

This implied another radical departure from points of view that the same policymakers had held in previous months. Policymakers, I hypothesize, concluded that 1978 exchange rate uncertainty, had negative effects on real

1/ Preannouncement of the future price of the exchange rate was also accompanied by similar announcements of minimum wages and prices of goods and services supplied by public enterprises.
domestic interest rates, and they decided to change exchange rate policy once again. Preannouncement was thought to provide certainty thus helping to reduce real rates of interest and dampen inflationary expectations. Policymakers in the Central Bank were, therefore, expecting that preannouncement of the exchange rate path would be the instrument by which they would achieve the double goal of reducing the inflation and real interest rates. 1/

Between January 1979 and March 1981 when this policy was fortunately discontinued, and contrary to policymaker's expectations, domestic prices had not converged to international inflation plus devaluation. Estimates of the discrepancies between these two series are presented in Table 3. Even in the last quarter of 1980 the inflation rate, as measured by the WPI, continued to increase - although at a declining rate - in spite of reductions in both international inflation and the rate of devaluation. Table 3 shows that between the first quarter of 1979 and the last quarter of 1980, domestic accumulated inflation had reached 260%. In contrast, international inflation plus devaluation summed 134% during the same period. 2/ The result was a

1/ The methodology used for determining the preannounced rates of devaluation is presented in Arriziú (1983).

2/ Later, I present some hypotheses which explain this lack of convergence. These hypotheses refer mainly to the characteristics of the structure of protection that accompanied the stabilization package.
significant drop in the real exchange rate of 31% between 1978 and 1980 (Table 1 column 8). 1/

The objective of reducing the real interest rate was partially achieved during 1979 (Table 2). Nevertheless, by the end of the year the real exchange rate coupled with lower import barriers, triggered an upsurge in imports. In current dollars during 1980 these were up 57% from 1979, and the trade deficit reached a record high level of $2.5 billion. This represented 31% of that year's exports. This percentage is in the same order of magnitude as that observed in the crisis year of 1975, just before the military government came to power.

Real interest rates increased pari passu with the increased uncertainty regarding the maintenance of exchange rate policy. In turn, high interest rates and the elimination of the relatively minor controls on capital flows that were still in effect in July 1980 2/ attracted additional short-term capital inflows.

But the social profitability of these capital inflows has been negative. For domestic residents, it was obvious that the 1980 real exchange rate was unsustainable. Therefore, these residents decided to increase their holdings of foreign exchange, and eventually send an important portion of

1/ The role played by persistent fiscal deficits and capital inflows in explaining this currency overvaluation is discussed in Corbo et. al. (1985).

2/ Essentially a one year minimum maturity period.
These abroad. 1/ This process was financed by foreign banks who at that time, overlooked basic indicators that were signalling future balance of payments problems to Argentina. The international financial community was expecting to reap important profits from Argentina's high real interest rates, when in fact, the level of these rates were to a great extent the consequence of disequilibrium exchange rates. Clearly, the international financial community made serious judgmental errors regarding the medium term repayment ability of Argentina.

The consequence of disequilibrium macroeconomic policies and of the international financial community overlooking these policies has been a tremendous jump in Argentina's foreign debt. This debt increased from US$5.6 billion in 1971 to US$37.0 billion in 1981. Solutions to the consequences of macro-policy errors of the magnitude that has been pointed have not yet been found. For the time being, the burden of Argentina's policy mistakes is lying exclusively on this country's future generations.

I hope that the material presented in the previous discussion puts some doubt on those who might still think that Argentina’s macroeconomic policies during 1976-1981 were liberal in a meaningful economic interpretation of the word. In the inappropriate macroeconomic setting which I have described, some trade liberalization policies were implemented. Nevertheless, when viewed in a broad context, these policies had numerous errors, and the next section is an attempt to point out some of them.

---

1/ The relation between Argentina's exchange rate policies and capital flights has been studied by Cuddington (1985). See also Dornbusch (1984).
V. A Quantitative Assessment of Trade Liberalization.

1. Indicators of trade liberalization

Ideally, a dynamic evaluation of the extent of trade liberalization could be approximated empirically by time series estimates of nominal and effective rates of protection. But because careful estimates of these variables are expensive and time-consuming, they are usually not available. At least, this is the case in the Argentine economy.

In this section, I will assess approximately the extent of trade liberalization by analyzing the behavior of effective exchange rates. 1/ For ease of exposition, I define the following four categories of effective exchange rates 2/ (EERs):

EER$_{is}$ corresponds to import-substitute industries
EER$_{imp}$ corresponds to non-competitive imports
EER$_{te}$ corresponds to traditional exports
EER$_{nte}$ corresponds to non-traditional exports

A typical import substitution (IS) country is characterized by the following escalation of EERs:

\[
\text{EER}_{is} \geq \text{EER}_{nte} \geq \text{EER}_{imp} \geq \text{EER}_{te}
\]

1/ The effective exchange rate on any given product is defined as the nominal exchange rate times one plus (minus) the ad-valorem tariff equivalent of all taxes levied on it before it is landed (exported) into (from) the country.

2/ Using only four categories of goods does not allow a close examination of the variance of incentives that typically characterize import-substitution economies. Nevertheless, some comments in this respect will be made.
In words: the EER provided to IS industries for their sales in the domestic market (EER\textsubscript{IS}) is higher than that provided for its export sales (EER\textsubscript{nte}), which in turn is in general higher than the effective exchange rate applied on imports of intermediate inputs and capital goods not domestically produced (EER\textsubscript{imp}). Finally, this last rate is in turn higher than that received by exporters of traditional goods (EER\textsubscript{te}) which in general are taxed.

A necessary condition for there to be trade liberalization is to observe a reduction in the difference between EER\textsubscript{IS} and EER\textsubscript{te}, as a consequence of both a reduction in EER\textsubscript{IS} and an increase of EER\textsubscript{te}. On the export side, it is also important to observe a reduction in the difference between EER\textsubscript{nte} and EER\textsubscript{te}.

2. Export barriers and effective exchange rates on exports

Several major changes of export trade policies were introduced. In the first place, in early 1976, the rates of export taxation on traditional exports were extremely high. Major grains were affected by export tax rates in the neighborhood of 50%. The corresponding rate for wool was 33%, while that of meat was 12\%.

During late 1976 and 1977, the rates of export taxation were reduced drastically except for meat. In particular, the rates applied on major grains were reduced to 16\% in 1977 and to 5-6\% thereafter. Tax rates on exports made

---

1/ In protectionist countries such as Argentina, the height of export incentives for non-traditional exports is lower than the height of import protection for domestic sales.

2/ In many cases, these imports enter duty free or pay a very low tariff.

3/ Export tax rates increased significantly as the fiscal deficit soared during the latest period of the Peronist government.
by exportable manufacturing industries were also reduced. For example, tax rates on exports of vegetable oils were reduced from values ranging from 48% in 1975 to 3% in 1977. Processed meats, hides, and wool were also affected by significant reductions in export taxes.

Therefore, agriculture and exportable manufacturing industries received the full impact of real devaluation. The resulting increase in real effective exchange rates was particularly high for these sectors because of the elimination of the multiple exchange rate regime, and the reductions in rates of export taxation.

Between 1975 and 1977 the real exchange rate (defined as the nominal exchange rate deflated by the WPI) increased 29% (Table 1, column 7). In contrast, the price-level-deflated EER (PLD-EER) of the primary sector increased more than 60% except for meat, and that of manufactured exportables by 39% (Table 4).

On the other hand, PLD-EERs of non-traditional exports increased during the same period only 9%. Nevertheless, these estimates do not incorporate interest rate subsidies forthcoming from credit lines granted by the Central Bank for export financing. I have estimated elsewhere (Nogués 1983) that for the great majority of non-traditional exports, potential interest rate subsidies per peso exported were not higher than 20%.

Therefore, it can be concluded that fiscal and financial export policies initially implied a reduction in the bias between incentives granted to different types of exports. Export policies were therefore initially moving in the right direction.

After 1977, PLD-EERs for exports closely followed the path of the real exchange rate. Letting 1976, the devaluation year, take a value of 100,
by 1978 the PLD-EERs of meat and exportable manufacturing industries had dropped to 60 and 62 respectively (Table 4). Except for grains, where export taxes were further lowered during this year, reductions of PLD-EERs were also considerable in other exportable industries.

I know of no other experience that in such a short time-span has gone through such drastic changes in real incentives. 1/

The Argentine experience is in this regard quite unique. Removal of export barriers and real devaluation led to trade surpluses. While the country did engage in some external borrowing, this was more the result of market forces than of government efforts to rebuild foreign exchange reserves. While other countries reducing trade barriers initially had to borrow externally, Argentina could have done for some time without additional borrowing. By the end of 1977 policymakers had an important decision to make. In order to achieve a trade balance they could either appreciate the domestic currency, 2/ or alternatively, dismantle import barriers more rapidly. As said, policymakers chose the first alternative. The failure to initially liberalize imports is central to the explanation of the collapse of the program at a later stage. If imports had been liberalized faster, foreign exchange reserves would not have increased as fast, and therefore, so the

1/ Krueger (1978) analyzes the behavior of PLD-EER (Table 5.3) for ten different countries in twenty-two different devaluation episodes. In that sample there is not one single case of reduction in PLD-EERs within adjacent two years from the time of devaluation such as the extreme ones observed in Argentina.

2/ Some economists argue that the dismantling of export barriers and liberalization of the capital account implied a lower exchange rate than that observed in 1977. Sjaastad and Rodriguez (1979).
hypothesis goes, policymakers would have been less inclined to follow real appreciation policies.

The further deterioration of the real exchange rate that followed preannouncements of this variable after 1979 was accompanied closely by similar reductions of PLD-EERs. Table 4 shows that by 1979 the PLD-EERs of all export categories were lower than the value observed in the crisis year of 1975. It might be concluded that the price effects of export liberalization and devaluation that took place during 1976 and 1977 had been eliminated by currency overvaluation as early as 1979. Unfortunately, effective exchange rates continued declining in 1980.

3. Tariff policy and price divergence in import-substitute industries

If all goods in the economy were tradables it would be impossible to observe in the long run significant diversions of domestic from international prices adjusted by the exchange rate. If commodity arbitrage takes place through competitive markets, the duration of whatever discrepancy might appear would be a function of the duration of the arbitrage process.

Table 3 shows that during the period when the exchange rate was preannounced, the change in domestic prices did not equal the sum of devaluation plus international inflation. 1/ Even in the last quarter of 1980 when the rate of devaluation and international inflation were decreasing, domestic inflation was still increasing. The puzzle is still more astonishing when account is taken of the fact that import tariffs were declining, and also that:

1/ The economic program lasted until March 1981. Nevertheless, an unexpected 10% devaluation was made in February of that year, so in essence the program ended in January 1981.
commodities included in the WPI are tradables in the traditional definition of not being protected by prohibitive transport cost barriers. Table 5 shows that price divergence was most pronounced in importable goods.

Broadly speaking, there are three hypotheses explaining why there was such a difference between actual price behavior and the one forecasted by the exchange rate rule. 1/ The first hypothesis of why prices behaved sluggishly points to the existence of lags and market imperfections that do not disappear rapidly, even after an important reduction of import barriers has been implemented. The second hypothesis is based on the credibility that agents put on the economic program and the economic behavior that this credibility might have triggered. Finally, a third non-conflicting hypothesis is that import barriers were not reduced that much, and that, therefore, there never existed a generalized potential threat to domestic producers of competitive imports. I comment briefly on each of these hypotheses.

The first hypothesis is built from different lines of reasoning. First, there are some ad hoc stories that stress the existence of lags in the arbitrage process. There is first a lag until agents realize that profits can be made by engaging in international commodity arbitrage activities. A second lag is explained by the duration of the search process through which the would-be importer must go. Recall that in a typical import substitution economy, a great majority of goods, and particularly consumer goods, have not.

1/ To the extent that capital inflows and fiscal deficits increased the relative price of non-tradable, some discrepancy between the price behavior of domestic import-competing and imported goods would have been observed anyhow (see Corbo et. al. 1985). The discussion that follows analyses other reasons for the discrepancy between domestic and international prices of importable goods.
been introduced to the country for decades. It is therefore not obvious at the beginning of the liberalization episode which goods to introduce and which foreign suppliers to approach.

Closely related stories also have some appeal for other types of goods. In particular, in an I-S economy, the bulk of imports are non-competing. These usually include intermediate imports and capital goods. These imports are generally made by the same enterprises that use them in the productive process. For our purposes, this implies that initially the economy is characterized by the lack of importers-wholesalers who presumably would act promptly when opportunities for profit from importing appear.

This hypothesis suggests that liberalization attempts of I-S economies must face rigidities and imperfections of the price mechanism, which can be attributed to the nature of I-S policies and the structural economic characteristics that result from such policies, and which do not disappear rapidly when import liberalization occurs.

A second hypothesis for explaining price divergence is related to the degree of agents' confidence in policies. We have already presented evidence on the uncertainty that surrounded policymaking and implementation. In I-S countries in general and Argentina in particular, the greatest macro-uncertainty has historically originated from instability of the real exchange rate. It is reasonable to hypothesize that unless agents were short-sighted, from past history they would have forecasted a high likelihood of being again
subjected to exchange rate variability. In this environment, agents would have second thoughts before investing heavily in international tradable activities. This being the case, chances are that the international price arbitrage process could be severely impaired when economic policies are not credible. I have pointed above to several characteristics of policy reforms which suggest that this lack of credibility might have characterized agents' expectations during these years.

The above problems and explanations of dynamic price divergence are independent of the existence of water in the tariff. On the other hand, the generalized existence of tariff redundancy and the absence of competitive imports provides an additional explanation for the lack of convergence of domestic to international prices. In presence of water in the tariff, there is no reason why changes in domestic prices should follow changes in tariff rates, or for that matter, changes in the exchange rate. This explanation is independent of market structures and credibility factors and therefore reinforces the above explanations.

1/ As seen, the real exchange rate declined all along the period of preannouncement. This continued the trend that had already started in 1978, and therefore it is reasonable to hypothesize that agents were already in early 1979 forecasting an exchange rate crisis. See Kaminsky (1983) for an econometric analysis showing that agents did not believe in the maintenance of the Central Bank preannouncement of the exchange rate. See also Dornbusch (1984).

2/ There is water in the tariff or tariff redundancy when the value of the legal tariff rate is higher than the value that makes competitive imports prohibitive.
I will now describe critically tariff policy and comment on the magnitude of tariff redundancy.  

1/ The record on dismantling import barriers shows that the first and unexpected move was made in November 1976, i.e., six months after the new government had taken power. Even though the new tariff structure was still highly escalated, 2/ the most significant change made in this occasion was in regard to maximum rates, which was reduced from values that were higher than 200% to a new maximum of 100%. 3/ These rates correspond generally to consumer goods. Nevertheless, the impact of these changes was not reflected in the structure of imports. The percentage participation of consumers goods in the import bill was still very low during 1977. 4/

This was to some extent, as I will show, the consequence of the generalized existence of redundant protection, i.e., water in the tariff. This observation, coupled with the relatively high value of the real exchange rate makes it very doubtful to assert that this initial move had any significant impact on competitive imports, and therefore on domestic producers of protected goods. In any case, this was the first but also the last unexpected move. After this the government moved extremely cautiously.

Up to December 1978 - more than two years after the first tariff reform - several partial tariff changes took place. These reforms were negotiated directly by the Secretary of Commerce with representatives of different industries. My own estimates, and what I have been told of how...

1/ Also, the next section will show that import licenses were never totally dismantled.

2/ Berlinski (1978) for some estimates.

3/ This initial tariff reform was not accompanied by any major move of lifting very protective quantitative restrictions.

4/ The participation rate increased from 2.1% in 1976 to 3.3% in 1977.
these negotiations took place, show that the net result of all these partial tariff reforms was a reduction in the degree of redundant protection.

The Secretary of Commerce used these partial tariff reforms to put pressures on protected entrepreneurs to limit price increases, and tariff reductions were negotiated with this objective in mind. This was a signal showing that the tariff was being used as a stabilization instrument. The result of these numerous partial tariff negotiations was not only a reduction in the margins of tariff redundancy, but also an increase in the variance of the legal tariff structure.

As to the quantitative estimates backing my assertions, I have measured elsewhere the average tariff redundancy. 1/ Table 6 reproduces some of my earlier findings. These estimates compare legal tariff structures with the percentage price differentials between domestically produced and foreign CIF prices. The price differentials were estimated for February of 1977. The legal tariff structures correspond to October 1976 (before tariff reforms had started) and December 1977 (after the Secretary of Commerce had completed the bulk of partial tariff reforms). These estimates show that on average the ratio of legal tariffs to price differentials declined from 2.5 to 1.4 between October 1976 and December 1977. 2/


2/ Legal tariffs and price differentials are weighed by gross value of production. The reader might be puzzled by the relatively low level of protection that comes from the estimates of price differentials. A couple of comments are in order. First, the high real exchange rate during 1977 reduced these differentials. Also, as argued, the severe wage controls in effect at that time kept the domestic price level relatively low. These comments imply that in a less controlled environment, price differentials might have been higher and, therefore, our estimates of water in the tariff would have been lower.
Also, the rank correlation coefficient between price differentials and legal tariffs observed in October 1976 was -6%. If, instead, price differentials are compared with the structure of legal tariffs of December, 1977, the correlation coefficient takes a value of 56%. Clearly, therefore, the structure of legal tariffs moved more in line with the structure of relative prices observed in a set of industries producing goods that were at that time protected from international competition. Because the variability of price differentials was initially higher than the variability of the tariff structure, the implementation of partial tariff reforms implied an increase in the variability of legal tariffs. Therefore, the role attributed to tariff policies during the first two and a half years of military government were quite different from the role of resource allocation and import competition that economists usually attribute to them.

In practice, it took nearly three years for the economic team to formulate and implement a relatively more consistent tariff policy. Such a policy was announced in December 1978. Several characteristics of the reform should be stressed. First, this was a gradual preannounced quarterly reduction of legal tariffs to be implemented during five years, i.e., well after the government actually starting the reform was scheduled at that time to-end its term. Also, the rates of tariff reductions were initially low, and accelerated in the last years. Table 7 shows the structure of legal tariffs prevailing at the beginning of the program, and the proportional reductions scheduled to go into effect up to 1981 and from here to 1984. It is clear

1/ Statistically significant with a 5% confidence level.
that if the tariff reform was going to be implemented, the burden of the implementation costs was passed over to the next government.

In the second place, the target and interim tariff structure had an escalation not very different from the historical one. Simulation analysis presented in FIEL (1980) shows that with the target tariff structure, the level of ERPs computed from legal tariff rates was high and variable.  

One important question to raise at this stage is why it took so long to design the tariff program just described. One simple answer is that policymakers were concerned with the transition costs associated with the implementation of import liberalization policies. This might be part of the answer but is not compatible with policymakers' behavior in other areas. An alternative hypothesis and one that is more consistent with the nature of policymaking that has been described, is that tariff policy was essentially geared by anti-inflation objectives. In fact this role was legally built into tariff policy only four days after the preannounced tariff schedule was implemented! In fact, Resolution 6/79 of the Ministry on Economy gave power to the Secretary of Commerce to apply tariff reductions on products whose monthly rate of price increase exceeded the preannounced rate of devaluation.

Following the guidelines of this resolution numerous tariff reductions were implemented. This obviously exacerbated entrepreneurs, at a time when, because of the overvaluation of the peso, competitive imports were beginning to grow rapidly. Even though imports introduced as a consequence of the application of Resolution 6 were not of magnitude, the associated uncer-

---

1/ These estimates for 45 manufacturing sectors show a simple average ERP of 43%. 

tainties accompanying these tariff reductions must have produced negative economic effects. The uncertainty came simply from the fact that after Resolution 6, the confidence of the entrepreneurs on the extent to which the preannounced tariff schedule was going to apply to their productive process had been severely reduced.

The tariff was also thought as an instrument to foster investment and technological change. Here there are two pieces of evidence. First, in the preliminary remarks of Resolution 1634/78 that implemented the program of quarterly tariff reductions, it is said that "...as an exception, and with the objective of facilitating the acquisition of industrial equipment, capital goods imports not domestically produced will be allowed duty free during 1979." 1/

Second, tariff protection to domestic producers of capital goods was drastically changed four months after the policy of preannounced tariff reductions had started. 2/ The new tariffs applied on these goods was equal to the one that had initially been scheduled to go into effect in January 1984. Given that the rest of the tariff program remained unchanged, and that as we shall see the basic metals industries continued to be highly protected, this policy shift implied a drastic and unexpected reduction of effective protection to producers of these goods. 3/

If anyone did believe in the policy of preannounced tariff...

1/ Author's translation.
2/ Resolution 493/79.
3/ Simulation of the effect of these policies on ERP is presented in FIEL (1980).
reductions when it was first implemented, this lack of stability of import policies, associated with the inappropriate roles assigned to the tariff in general, and in particular its anti-inflationary objectives, must have affected seriously the credibility of the whole program. The growing overvaluation of the domestic currency that was taking place must have reinforced agents' expectations that the whole economic program was going to be running into increasing difficulties.

The extent to which tariff redundancy affected the behavior of domestic prices in late 1979 and 1980 cannot be accurately assessed from this data. The evidence suggests that in some cases this might have provided at least part of the explanation of price divergence in Argentina. 1/

Finally, it is of interest to note that the failure to dismantle some significant QRs during the liberalization attempt also helps to explain the lack of convergence of domestic price changes to international inflation plus devaluation. This will be discussed more carefully in the next section, where I take up some political-economy considerations.

VI. Some Political-Economy Considerations

The earlier sections have attempted to tackle with one of the traditional tasks of economists: i.e. to analyze the appropriateness of economic policies. But societies do not determine their policies by reference to the costs and benefits that have convinced many economists. Trade and exchange rate policies are the result of the underlying political institutional characteristics of societies.

1/ See Machnea (1983).
In this section I stress some issues of the political-economy of trade and exchange rate policies. Point 1 calls attention to the fact that traditionally in Argentina exchange rate policies have been shaped by income-distribution effects. This is in sharp contrast to the role that the exchange rate plays in monetary and neoclassical models. These models, it has been argued, are the ones that policymakers had in their minds during 1976-1981. The point here is to emphasize that despite the very different roles that the exchange rate plays in these abstract models, there has been a pervasive tendency of the policy decision-mechanism to use the exchange rate as an anti-inflation instrument. The lesson to extract from this is clear and straightforward: until we are not sure that the political-economy understands the central role that the exchange rate and the tariff plays in the long-run resource allocation characteristics of the economy, there will be a real danger of implementing trade liberalization policies in an inflationary economy. Indeed, the Argentine experience suggests that for policymakers these instruments might be used sooner or later for stabilization purposes with costly consequences.

A second consideration refers to the fact that traditionally, different government agencies manage different trade instruments. But because of the nature and relative importance of different controls, some government agencies—the followers—adj ust the instruments they control to cope with the effects of financial and exchange rate policies implemented by the leading agencies. This agency segmentation was not changed during the period under study and because of this, inter-agency disputes developed. This argument is developed in point 2.
The role of the military and the economic interest they held as owners of very inefficient and key industrial sectors producing intermediate goods makes it quite unlikely that governments under their influence will attempt across-the-board liberalization policies. Point 3 argues that the made-to-measure protection to the military-industrial complex during this period is clear evidence on this hypothesis.

The final point stresses the importance that new institutions are expected to play when policy reforms in effect give competitive forces a greater role in the resource allocation process.

1. Exchange rate views and policies

Many scholars have concluded that Argentina is a sectoralized society. A major characterization of this sectoralization would include a rural-urban dichotomy. A summary view of the underlying political-economy concludes that because Argentina is a resource-rich country, it is reasonable to redistribute income from the rural to the growing urban sector. Also, because land ownership is very concentrated, such a redistribution is equitable.

In this inter-sectoral struggle, some powerful urban groups have shown great political ability to organize themselves. These groups which could be classified as the winners from the distorted economy would include a handful of strong and powerful labor unions on the one hand, and a few mono-

1/ See among others, Brodershon (1963), Canitrot (1979), Di Tella (1983), and Malon & Sourrouille (1973). Political scientists have analyzed some aspects of the dynamics of Argentine sectoralization. See, for example, Wynia (1978).
polistic manufacturing enterprises producing the bulk of protected manufacturing output on the other.

The effectiveness of these urban groups has been such that, in fact, they have come to power on many occasions. As a consequence, the government has many times identified the national interest with sectoral interests to an extent that must be quite unparalleled in other countries. 1/

Many economists have abstracted from this political economy when constructing their models. Among these, those including an analysis of the income distribution effects of exchange rate policies are important for understanding some of the pressures that policymakers might face when designing their policies. The best-known and most influential theoretical construct of the exchange rate-income distribution-output nexus has been worked out by Díaz Alejandro (1965). In one of his influential works on the Argentine economy he concludes that "...by introducing explicitly income redistribution considerations into devaluation theory, it has been possible to view devaluation as just another weapon in the struggle of different sectors in the economy for larger shares in the national income."

This conclusion comes from the fact that the price of food—Argentina's exportable—faced by urban workers is tied to the level of the exchange rate. Also, the demand for urban industrial products, which because of the very high protection they enjoy can be treated as non-tradables, is positively related to the real wage. In this context, a devaluation by increasing the price of food reduces real wages, and because the price elasticity of food demand is low, the devaluation also reduces aggregate

demand for industrial products and, therefore, urban employment. It is usually assumed that the rural sector responds slowly to price incentives. In these circumstances, it is also possible for a devaluation to trigger recession.

It is reasonable to quarrel with each one of the assumptions that are necessary for this result to hold true, but such an exercise escapes the objective of this paper. On the other hand, these models show the economic logic behind some characteristics of the Argentine political-economy that help to explain why a devaluation can be strongly resisted by policymakers. 1/ In fact, Diaz Alejandro's exchange rate model has been used to interpret economic policies and consequences of the 1973-1976 Peronist government. 2/

A major and persistent shortcoming of the Argentine policy decision mechanism is that few policymakers believe that in the long-run the exchange rate does not determine income distribution, and that in the short-run it is an inappropriate instrument for this purpose and for stabilization objectives as well.

Thus, the natural tendency of the political economy has been to fix the exchange rate and overvalue the domestic currency. This tendency is reinforced by the strong inflationary bias of the economy and the temptation which arises in such circumstances to control the inflationary process by whatever policy instruments are deemed appropriate, including exchange rate policies.

1/ To be sure Diaz Alejandro policy recommendations were to "...divorce exchange rates and other relative prices as much as possible from the determination of income distribution..." (1965, p.192).

During the years of the military government, exchange rate policies find their theoretical backgrounds in the "monetary approach to the balance of payments." In the recent literature, this point has been stressed by Machinea (1983) and Fernández (1985).

This approach is based on a highly aggregative model that focuses attention on the balance of payments adjustment process of an open economy under fixed exchange rate policies. The model does not distinguish between consumer groups nor between economic sectors and, therefore, income distribution considerations are omitted from the analysis. Also, because these models assume a competitive neoclassical mechanism to be working, full employment is guaranteed, and thus output effects are usually excluded from the analysis. Because of these differences, monetary models stand in sharp contrast to Keynesian constructs such as the one developed by Díaz Alejandro.

Paradoxically, because of the fact that the inflationary trend of the economy had not vanished, one can also rationalize the adoption of a preannounced exchange rate policy as an anti-inflation instrument through an attempt to influence expectations. In fact, Rodriguez (1979) developed a stylized theoretical model showing how the adjustment process associated with preannounced exchange rate could work.

In conclusion, the Argentine experience shows that its persistent inflation has tempted policymakers of different political regimes and holding different economic views to use the exchange rate as a stabilizing instrument. But "realistic" exchange rate policies are key to a successful trade

---

1/ Fernández (1985) has asserted that this model "... can be considered a very close approximation of what the economic team might have had in mind at the time of announcing the devaluation schedule."
liberalization attempt. Thus, unless the natural tendency of policymaking is modified, and/or the inflation rate is significantly reduced, the Argentine experience shows that a liberalization attempt in an inflationary economy might fail not because of the inflation per se, but because of the natural tendency of the policy decision mechanism to misuse policy instruments for stabilization purposes.

2. **Policy segmentation, administrative rules and inter-agency disputes**

The Central Bank is probably the most powerful governmental office in Argentina. Such power comes from the crucial role it has historically played in implementing economic policies. Such economic policies have traditionally been based on the importance of the government for determining the allocation of resources. In this context, the Central Bank has played a key role in controlling: a) the exchange rate; b) international payments; c) nominal interest rates; and d) credit allocation. Control brings power, and those exercised by the Central Bank are key to explaining historical economic developments of the Argentine economy.

But because these controls are not always sufficient to achieve balance of payments objectives, other governmental offices are pushed to adjust the instruments they control. This has been the case, for example, with the Secretary of Commerce. Thus, in the past when the country payment problems worsened this government office increased trade barriers by: a) prohibiting specific imports, b) raising tariffs, c) introducing import licenses, and quotas, etc. It is important to stress that this behavior is not constrained by rules. This can be most clearly appreciated from quoting the first article of the Argentine trade law (20545): "... protection of
workers and national output includes tariff and fiscal procedures whose aim is to strengthen the output of enterprises of nationals with the objectives of: finishing with the cultural, technological and economic dependence of the country; seeking autarky in the production of strategic and/or fundamental goods and services ..., and to assure a supply of goods that would guarantee an adequate standard of living to the Argentine nation." The statement shows quite clearly the nationalistic spirit that guides the application of trade policies.

An important change of this policy segmentation among government offices occurred as a result of the policy reforms. This time policy behavior of the Secretary of Commerce was constrained by the new trade rules. Non-tariff barriers were not allowed to be changed, and the path of the tariff structure had been preannounced.

But because of the low real exchange rate and resulting surge of import penetration, the Secretary of Commerce received increasing protectionist requests. Initially, the reaction was for this Secretary to favor a real devaluation. The most important piece of evidence that this Secretariat prepared for arguing in favor of this policy was purchasing-power-parity (PPP) estimates of the exchange rate.

What could have these estimates shown? Table 8 shows one among the sets of PPP exchange rate series that can eventually be constructed. Here I take 1978 as the base period and compute monthly PPP estimates by: using domestic and U.S. WPI. The estimates show that starting in January 1979 the domestic currency followed an appreciating trend, and in December 1980, the PPP exchange rate was 81% higher than the official exchange rate. Had we chosen another reasonable base period the discrepancy would have been higher,
simply because in earlier years high export barriers and severe restrictions on capital flows were in effect, and the equilibrium exchange rate was higher than the 1978 rate. Clearly, the economic minister had to decide between a devaluation or a continuation of policies. His decision was to persist with the Central Bank policies. Inter-agency disputes continued, but became irrelevant after this decision had been made.

Because devaluation was resisted, the Secretary of Commerce avoided the constrained behavior implicit in a program of preannounced tariff reductions and began granting "import relief" by raising official prices and imposing anti-dumping and countervailing duties. Also, a 15% across-the-board countervailing tariff on imports from Brazil was imposed. Finally, increased export subsidies to different industries including beef were granted!

In this regard the trade liberalization attempt made even more inappropriate the trade lesson given by the traditional trade policy mechanism. The experiment taught that countervailing and anti-dumping duties could be used for granting protection.

Several other changes implied important departures from traditional bureaucratic behavior and led to other inter-agency disputes. For example, traditionally, as the budget deficit grows, the Secretary of Finance raises export tax rates. But this behavior was again not permitted under the new rules of the game. Under these conditions the growing deficit which was taking place was viewed as a threat to the instability of preannounced exchange rate policies and more generally of the new economic program. As a

\[1/\] For example 1969. See Nogués (1985) for justification of this base.
consequence, inter-agency disputes between the Central Bank and the Secretary of Finance developed. These are referred to in Arriazo (1983).

I have already suggested that given the problems associated with the sluggishness of the commodity price arbitrage process, which in turn could be attributed to some extent to characteristics of import policies, the underlying model behind preannounced exchange rate policies could not work in practice. But even if these problems had not been present, the underlying model required a great deal of coordination among government agencies that were managing different instruments. This was not the case in the period under study.

It is important to emphasize a final point. There is unanimous agreement and abundant evidence that the military government was dictatorial and socially repressive. The dictatorial description also characterized the economic policy decision mechanism. Economic policies were designed by a handful of persons - not more than five - which held absolute power and who were not prepared to discuss and hear criticism to their policies either from inside or outside the government.

It is reasonable to hypothesize that the economic disequilibrium into which the economy was put during 1980 could not have occurred in a more democratic decision-making process. In such an environment, I hypothesize, the social tensions that developed from the inappropriateness of the exchange rate and other distortionary policies would have been given a higher weight, and probably corrective actions would have been taken sooner.
3. Trade liberalization and the military industrial complex

In Argentina, the military own the bulk of output produced by the steel industry. Because of its economic importance and the strong interrelationship it has with other sectors, the efficiency with which this industry operates determines to a great extent the competitiveness of other sectors. Unfortunately, this industry in Argentina can be characterized as an inefficient protected monopoly.

The steel market is shared by two enterprises: SOMISA (Sociedad Mixta Siderúrgica Argentina), and PROPULSORA. The first is owned by the military and is in practice administered by DIRECCION GENERAL DE FABRICACIONES MILITARES (DGFHM). PROPULSORA is owned by an Italian group: TECHINT.

During several years SOMISA was the sole producer of basic metal products of iron and steel and grew thanks to a myriad of both open and hidden subsidies. After ten years of negotiating with the military, PROPULSORA began in the early 70s producing coils and other steel products for the domestic market. Since then, legal barriers created by numerous decrees have served to eliminate potential competition from domestic output.

Around the same time that PROPULSORA started its operations, import licenses on the products produced by these enterprises became mandatory. According to Decrees 4 and 37 of 1968 and 1970, import licenses will be granted when domestic output "... does not cover domestic demand ....". These licenses are administered by DGFHM. Therefore, the market is completely segmented, and no other enterprise has been able to produce at a significant scale the most important products elaborated by SOMISA and PROPULSORA. This market can very well be defined as a "sanctuary of protection."
In 1980, of the total value of intermediate steel products imported, 52% entered the country with a license. Only one ten-digit Brussels Trade Nomenclature (BTN) position (coils) accounted for 64% of licensed imports, and 3 BTN positions accounted for 90%. SOMISA and PROPULSORA actually imported 64% of these licensed imports.

Not only are licensed imports highly concentrated, but their associated rents are apparently quite significant. For example, in 1977 domestic ex-factory prices of coils exceeded international CIF prices by 62%. In late 1980, the Argentine domestic price exceeded the international price by more than 200% (Table 9). The domestic enterprises were, therefore, collecting the bulk of the rents associated with the licenses they themselves were managing.

Finally, according to the most recent ERP's estimates, the basic metal industry was receiving in 1977 above average rates of protection (Nogués, 1978). For example, the basic industries of non-ferrous metals (SIC 372) and iron and steel (SIC 371) had corresponding weighted average estimates of ERP's of 88% and 85% respectively. They ranked second and third among fifteen three-digit SIC industries.¹

Summing up, a handful of enterprises in the Argentine basic metal industry are completely protected from domestic competition by legal barriers and from foreign competition by import licenses. Issues surrounding these enterprises are assessed by the military and have been out of the influence of economic ministers. In effect during the military government, the military

¹/ The non-ferrous basic metal industry is essentially aluminum, which is also protected with import licenses.
reserved for themselves an economic instrument - licenses - to protect their industry. Recall, that during 1979 and 1980 protection to all other import substitute industries was granted exclusively through tariffs.

For our purposes, it is also important to stress that in a liberalization process, the steel industry was going to be affected, even if it could escape the tariff rule that had been set for the other import-substituting industries. This is because demand for its products come from other protected industries such as cars and capital goods that were in all likelihood going to be hurt by lower import barriers. 1/ Thus, in the long run, and in an across the board liberalization process, it appears that the military industrial complex had little chance of surviving unless its managers showed the capacity to adjust to import competition. The evidence suggests that they were not willing to confront this challenge. The economic interests of the political power structure were not compatible with import liberalization policies.

4. Role of Institutions

The quote in point 2 of this section from the Argentine trade law shows quite clearly that economic self-sufficiency has been a major ideological force of the Argentine economic decision mechanism. Policy reforms that seek to increase the role of competitive forces and international economic interdependence must include a major attempt to change the nature of

1/ This might be one reason explaining why the car industry was excluded from the tariff program and, in fact, received above average protection during the military government. See FIEL (1980) for a description of import policies protecting the car industry.
At this stage I will suggest the importance of two characteristics that should accompany a major shift in trade policies.

The first is obvious, and probably because of this it is important. The new decision mechanism must have a clear understanding of the role played by different policy instruments, particularly in regard to their appropriateness for resource allocation, as well as income distribution and stabilization objectives. The paper has offered evidence showing that the economic cabinet of the military government did not show a clear understanding of the role played by the major policy instruments under their control.

The second suggestion is to balance the power held by different groups participating in the policy decision mechanism. It is a balanced and more democratic mechanism - one where consumers', exporters' and importers' interests have approximately similar weights - that is expected to result in a long lasting liberalization. The major risk of not attempting to introduce these changes is that when bad times reappear, policy reforms will be concluded and protectionist policies reintroduced.

Attempting to construct a balanced policy decision mechanism is a major challenge which has not been taken up for decades. Obviously it is not expected for a repressive military dictatorship to do this anyhow. This, I hypothesize, explains that when international payments problems reappeared during 1981-82, it proved easy and politically costless to close the economy. This was done by another military government.

---

1/ Hamilton defines institution as "...connotes a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people" (Hamilton, 1936, p. 84).
VII. Final Remark

This paper has analyzed the nature of economic controls that were imposed by Argentina's military government between 1976 and 1981. Behind these controls was an attempt to bring down the inflation rate. But the government was unable to balance the budget, and as a consequence, the fundamental cause of the inflation problem remained present.

The first characteristic of controls studied in this paper was their instability. Because of this, the absolute and relative prices of macro variables such as real wages, real interest rates and the real exchange rate fluctuated significantly.

A second characteristic refers to the severity of the distortions which these controls created. For example, there does not appear to be in the post-World War II history of Argentina, nor of other developing countries, fluctuations in real effective exchange rates as great as the one recorded for Argentina.

The nature of these policy-induced distortions was such, that they could only be sustained with important capital inflows. Therefore, the severity of the controls lasted as long as the international financial community supplied the necessary financial resources. Unfortunately, this process went too far, and by the time when policy reversals began to be implemented, Argentina's foreign debt had increased to historical high levels, i.e., a level that will be a major economic problem for years to come.

In this environment, policies resulting in reductions of import barriers were introduced. But given the severity of the macro-economy disequilibrium, these policies could not be sustained. In any case, I have stressed that these policies were also to a great extent driven by anti-
inflation objectives. I have also argued that the long-run economic interest of those who held effective political control at that time were not compatible with trade liberalization policies. The military industrial complex simply escaped the trade policy rules that were imposed on other tradeable sectors.
<table>
<thead>
<tr>
<th>Year</th>
<th>Export (1)</th>
<th>Import (2)</th>
<th>FPP-ER (3)</th>
<th>Black Market (5)</th>
<th>(3)* (2)</th>
<th>(4)* (2)</th>
<th>FLR-ER (7)</th>
<th>FPP-FLR-ER (8)</th>
<th>Exports (9)</th>
<th>Imports (10)</th>
<th>Trade Balance (11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>3.50</td>
<td>3.50</td>
<td>3.51</td>
<td>1.00</td>
<td>1.00</td>
<td>1.50</td>
<td>1.50</td>
<td>1.50</td>
<td>1,612.1</td>
<td>1,576.1</td>
<td>36.0</td>
</tr>
<tr>
<td>1970</td>
<td>3.67</td>
<td>3.79</td>
<td>3.89</td>
<td>1.03</td>
<td>1.02</td>
<td>3.32</td>
<td>3.47</td>
<td>1.773.2</td>
<td>1,694.0</td>
<td>79.2</td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>4.58</td>
<td>4.59</td>
<td>5.25</td>
<td>1.12</td>
<td>1.31</td>
<td>2.95</td>
<td>3.21</td>
<td>1,740.3</td>
<td>1,868.1</td>
<td>-127.8</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>7.95</td>
<td>8.21</td>
<td>8.82</td>
<td>1.07</td>
<td>1.60</td>
<td>2.91</td>
<td>3.27</td>
<td>1,941.1</td>
<td>1,904.7</td>
<td>36.4</td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>9.07</td>
<td>9.36</td>
<td>11.80</td>
<td>1.26</td>
<td>1.26</td>
<td>2.21</td>
<td>2.67</td>
<td>3,266.0</td>
<td>2,229.5</td>
<td>1,036.5</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>9.10</td>
<td>8.89</td>
<td>11.90</td>
<td>1.34</td>
<td>1.83</td>
<td>1.75</td>
<td>2.56</td>
<td>3,930.7</td>
<td>3,634.9</td>
<td>295.8</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>25.80</td>
<td>21.34</td>
<td>31.18</td>
<td>1.49</td>
<td>3.38</td>
<td>1.43</td>
<td>2.35</td>
<td>2,961.3</td>
<td>3,946.5</td>
<td>-985.2</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>189.46</td>
<td>149.70</td>
<td>181.97</td>
<td>1.22</td>
<td>1.77</td>
<td>1.68</td>
<td>2.92</td>
<td>3,916.1</td>
<td>3,033.0</td>
<td>883.1</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>402.35</td>
<td>410.01</td>
<td>428.89</td>
<td>1.05</td>
<td>1.03</td>
<td>1.85</td>
<td>3.43</td>
<td>5,651.8</td>
<td>4,151.5</td>
<td>1,490.3</td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>792.37</td>
<td>805.37</td>
<td>808.79</td>
<td>1.00</td>
<td>1.00</td>
<td>1.48</td>
<td>2.64</td>
<td>6,399.5</td>
<td>3,833.7</td>
<td>2,565.8</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>1,316.52</td>
<td>1,361.89</td>
<td>1,794.40</td>
<td>1.32</td>
<td>0.98</td>
<td>1.00</td>
<td>2.25</td>
<td>7,809.9</td>
<td>6,760.8</td>
<td>1,109.1</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>1,333.01</td>
<td>1,855.23</td>
<td>2,756.27</td>
<td>1.49</td>
<td>1.00</td>
<td>0.78</td>
<td>2.03</td>
<td>8,028.0</td>
<td>10,560.6</td>
<td>-2,512.6</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>4,368.62</td>
<td></td>
<td>5,299.3</td>
<td></td>
<td></td>
<td></td>
<td>0.87</td>
<td></td>
<td>9,150.0</td>
<td>9,170.0</td>
<td>-20.0</td>
</tr>
</tbody>
</table>

1/ The purchasing power parity is constructed with wholesale price indexes and using U.S. as the reference country. Prior to 1977 we use 1969 as the base year. From 1978 to 1981 we use 1978 as the base year.

2/ Import exchange rate deflated by the wholesale price index. Base 1969=1

3/ Import exchange rate multiplied by the ratio of U.S. to Argentine wholesale price indexes with 1969 as the base year.

Source: Columns (1), (2), (4), (11) and (11) from trade tabulations of the Central Bank; column (4) Techint (several issues).
<table>
<thead>
<tr>
<th>Year</th>
<th>Real Wages 1/ (base 1969 = 100)</th>
<th>Real Annual Interest Rate 2/</th>
<th>% Change Rate 3/ (base 1969 = 100)</th>
<th>Ratio of Factor Price: (1) * (2) 4/ (1) + (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>100</td>
<td>7.8</td>
<td>100</td>
<td>1.00</td>
</tr>
<tr>
<td>1973</td>
<td>101</td>
<td>-19.4</td>
<td>76</td>
<td>--</td>
</tr>
<tr>
<td>1974</td>
<td>110</td>
<td>0.8</td>
<td>73</td>
<td>10.73</td>
</tr>
<tr>
<td>1975</td>
<td>107</td>
<td>-24.6</td>
<td>67</td>
<td>--</td>
</tr>
<tr>
<td>1976</td>
<td>55</td>
<td>-16.5</td>
<td>53</td>
<td>0.66</td>
</tr>
<tr>
<td>1977</td>
<td>59</td>
<td>3.1</td>
<td>98</td>
<td>1.48</td>
</tr>
<tr>
<td>1978</td>
<td>68</td>
<td>13.7</td>
<td>84</td>
<td>0.39</td>
</tr>
<tr>
<td>1979</td>
<td>84</td>
<td>-0.0</td>
<td>64</td>
<td>--</td>
</tr>
<tr>
<td>1980</td>
<td>103</td>
<td>24.1</td>
<td>58</td>
<td>0.33</td>
</tr>
</tbody>
</table>

1/ For 1978, 1979 and 1980 real wages correspond to those observed in the last quarter of each year.

2/ Real interest rates are nominal lending rates deflated by the WPI.

3/ Estimated by equating the 1969 real interest rate to 100 and disregarding years with negative values.

Source: Column (1): Macchiave (1983) Table 2.9; Column (2): Nogues (1983) Table 8; Column (3): Table 1 of the paper.
<table>
<thead>
<tr>
<th>Quarter</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>Accumulated (1979 + 1980)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>28.3</td>
<td>28.2</td>
<td>29.8</td>
<td>7.2</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>12.8</td>
<td>17.5</td>
<td>8.8</td>
<td>9.0</td>
<td>260.0</td>
</tr>
<tr>
<td>A. Argentine Inflation as Measured by the Wholesale Price Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>3.8</td>
<td>3.8</td>
<td>4.4</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>6.1</td>
<td>1.9</td>
<td>1.7</td>
<td>2.8</td>
<td>31.8</td>
</tr>
<tr>
<td>B. International Inflation as Measured by the U.S. Wholesale Price Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>5.8</td>
<td>4.7</td>
<td>5.8</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>2.9</td>
<td>2.8</td>
<td>3.9</td>
<td>1.1</td>
<td>35.8</td>
</tr>
<tr>
<td>C. International Inflation 1/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>15.2</td>
<td>13.8</td>
<td>11.8</td>
<td>9.9</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>7.9</td>
<td>6.1</td>
<td>4.3</td>
<td>3.1</td>
<td>98.3</td>
</tr>
<tr>
<td>D. Devaluation of the Peso-Dollar Exchange Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ This series was estimated by applying international prices to the weighting scheme of the Argentinean WPI. Essentially, the price data used are quotations in international markets for several primary exportable commodities and the U.S. WPI for manufactured goods.

Source: Author's elaboration.
Table 4: EFFECTIVE EXCHANGE RATES FOR DIFFERENT CATEGORIES OF EXPORTS, ARGENTINA 1975-1981 1/

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Nominal Values</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Primary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Agriculture 2/</td>
<td>14</td>
<td>101</td>
<td>340</td>
<td>734</td>
<td>1241</td>
<td>1749</td>
<td>4118</td>
</tr>
<tr>
<td>2. Bovine meat</td>
<td>17</td>
<td>176</td>
<td>322</td>
<td>652</td>
<td>1787</td>
<td>1880</td>
<td>4434</td>
</tr>
<tr>
<td>3. Raw Hides</td>
<td>13</td>
<td>138</td>
<td>327</td>
<td>656</td>
<td>1086</td>
<td>1425</td>
<td>4254</td>
</tr>
<tr>
<td>4. Raw Wool</td>
<td>13</td>
<td>134</td>
<td>318</td>
<td>722</td>
<td>1208</td>
<td>1014</td>
<td>4525</td>
</tr>
<tr>
<td>B. Exportables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactures 3/</td>
<td>18</td>
<td>185</td>
<td>374</td>
<td>775</td>
<td>1317</td>
<td>1979</td>
<td>4679</td>
</tr>
<tr>
<td>C. Non-Traditional Manufactures 4/</td>
<td>29</td>
<td>249</td>
<td>472</td>
<td>941</td>
<td>1709</td>
<td>2210</td>
<td>5751</td>
</tr>
<tr>
<td>II. Real Values 5/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Primary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Agriculture</td>
<td>519</td>
<td>620</td>
<td>846</td>
<td>734</td>
<td>498</td>
<td>400</td>
<td>449</td>
</tr>
<tr>
<td>2. Bovine meat</td>
<td>630</td>
<td>1080</td>
<td>801</td>
<td>652</td>
<td>516</td>
<td>430</td>
<td>484</td>
</tr>
<tr>
<td>3. Raw Hides</td>
<td>481</td>
<td>847</td>
<td>813</td>
<td>656</td>
<td>436</td>
<td>326</td>
<td>464</td>
</tr>
<tr>
<td>4. Raw Wool</td>
<td>481</td>
<td>822</td>
<td>791</td>
<td>722</td>
<td>485</td>
<td>415</td>
<td>494</td>
</tr>
<tr>
<td>B. Exportable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactures</td>
<td>667</td>
<td>1135</td>
<td>930</td>
<td>775</td>
<td>528</td>
<td>453</td>
<td>510</td>
</tr>
<tr>
<td>C. Non-traditional Manufactures</td>
<td>1074</td>
<td>1528</td>
<td>1747</td>
<td>941</td>
<td>645</td>
<td>505</td>
<td>627</td>
</tr>
</tbody>
</table>

1/ Except for 1981 the individual product estimates are weighted by FOB export values to obtain sectoral estimates. For 1981 these estimates are simple averages of individual products.

2/ Includes wheat, maize, and sorghum.

3/ Includes several types of vegetable oils, corned beef, vegetable-tanning, processed hides, washed wool and wheat flour.

4/ Does not include financial subsidies. The underlying product sample includes wire, motors, general machinery, agricultural machinery, tractors, and synthetic rubber.

5/ Deflated by the WPI with 1978=1.

Source: Nogués (1983) Table 18. (1 - Et) \( \frac{UJ}{ARC} \) (WPI)
Table 5: RATIO OF DOMESTIC TO INTERNATIONAL PRICES, ARGENTINA 1976-1981
Base 1978 IV=1.0

<table>
<thead>
<tr>
<th>Year and Quarter</th>
<th>Exportables (1)</th>
<th>Importables (2)</th>
<th>Ratio (1)/(2) (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976 I</td>
<td>.59</td>
<td>.69</td>
<td>.85</td>
</tr>
<tr>
<td>1976 IV</td>
<td>.7</td>
<td>.70</td>
<td>1.04</td>
</tr>
<tr>
<td>1977 IV</td>
<td>.82</td>
<td>.84</td>
<td>.98</td>
</tr>
<tr>
<td>1978 IV</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>1979 IV</td>
<td>.98</td>
<td>1.30</td>
<td>.75</td>
</tr>
<tr>
<td>1980 IV</td>
<td>1.13</td>
<td>1.58</td>
<td>.72</td>
</tr>
<tr>
<td>1981 I</td>
<td>1.07</td>
<td>1.61</td>
<td>.67</td>
</tr>
<tr>
<td>1981 IV</td>
<td>1.02</td>
<td>1.13</td>
<td>.91</td>
</tr>
</tbody>
</table>

Source: Machines (1983) Table 3.7a
<table>
<thead>
<tr>
<th>Industry Code and Name</th>
<th>Legal Tariff Rates (%)</th>
<th>Realized Protection Rates (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>October '76</td>
<td>December '77</td>
</tr>
<tr>
<td>321 Textiles</td>
<td>107.7</td>
<td>57.4</td>
</tr>
<tr>
<td>322 Clothing</td>
<td>200.0</td>
<td>95.0</td>
</tr>
<tr>
<td>341 Paper and paper products</td>
<td>28.9</td>
<td>29.0</td>
</tr>
<tr>
<td>351 Industrial chemicals</td>
<td>75.6</td>
<td>35.2</td>
</tr>
<tr>
<td>352 Other chemicals</td>
<td>98.8</td>
<td>17.0</td>
</tr>
<tr>
<td>355 Rubber products</td>
<td>110.0</td>
<td>45.0</td>
</tr>
<tr>
<td>362 Glass</td>
<td>94.3</td>
<td>41.8</td>
</tr>
<tr>
<td>369 Other non-metallic mineral products</td>
<td>66.0</td>
<td>11.0</td>
</tr>
<tr>
<td>371 Basic ferrous metal products</td>
<td>88.8</td>
<td>48.2</td>
</tr>
<tr>
<td>372 Basic non-ferrous metal products</td>
<td>68.5</td>
<td>44.5</td>
</tr>
<tr>
<td>381 Metal products</td>
<td>132.9</td>
<td>45.9</td>
</tr>
<tr>
<td>382 Non-electrical machinery</td>
<td>98.3</td>
<td>65.5</td>
</tr>
<tr>
<td>383 Electrical machinery</td>
<td>89.1</td>
<td>61.3</td>
</tr>
<tr>
<td>384 Transport equipment</td>
<td>127.0</td>
<td>87.2</td>
</tr>
<tr>
<td>385 Scientific and other equipment</td>
<td>80.0</td>
<td>50.0</td>
</tr>
<tr>
<td>Weighted Average</td>
<td>93.7</td>
<td>52.7</td>
</tr>
</tbody>
</table>

Source: Table 1-in-Nogués (1978).
Table 7: SCHEDULE OF TARIFF REDUCTIONS, 1979-1984

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Beverages</td>
<td>1 39 21</td>
<td>61</td>
<td>21</td>
<td>61</td>
</tr>
<tr>
<td>Tobacco</td>
<td>2 45 18</td>
<td>62</td>
<td>18</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>3 52 23</td>
<td>60</td>
<td>23</td>
<td>60</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>1 65 17</td>
<td>44</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>2 75 17</td>
<td>44</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>3 85 14</td>
<td>44</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>Intermediate</td>
<td>1 44 35</td>
<td>50</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>Products</td>
<td>2 46 17</td>
<td>45</td>
<td>17</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>3 48 20</td>
<td>40</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Agricultural</td>
<td>1 21 19</td>
<td>41</td>
<td>19</td>
<td>41</td>
</tr>
<tr>
<td>Products of</td>
<td>2 25 16</td>
<td>43</td>
<td>16</td>
<td>43</td>
</tr>
<tr>
<td>Primary Origin</td>
<td>3 29 14</td>
<td>44</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>Other Primary</td>
<td>1 36 22</td>
<td>46</td>
<td>22</td>
<td>46</td>
</tr>
<tr>
<td>Inputs</td>
<td>2 39 21</td>
<td>45</td>
<td>21</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>3 42 19</td>
<td>41</td>
<td>19</td>
<td>41</td>
</tr>
<tr>
<td>Goods Not Produced in Argentina</td>
<td>10 0 0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>1 46 17</td>
<td>47</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>2 48 20</td>
<td>43</td>
<td>20</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>3 50 16</td>
<td>6</td>
<td>16</td>
<td>6</td>
</tr>
</tbody>
</table>

1/ There are three classes within each commodity classification. This has traditionally served the purposes of providing more protection to goods with higher value added.

2/ First quarter 1979.

3/ Underlying observations correspond to first quarter of each year.

Source: Guia Practica del Exportador e Importador (1979).
Table 8: MONTHLY PPP AND OFFICIAL EXCHANGE RATES, ARGENTINA 1979-81 1/
(pesos per dollar)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>1,055.50</td>
<td>1,254.51</td>
<td>1,663.50</td>
<td>2,436.18</td>
<td>2,031.00</td>
<td>3,714.63</td>
</tr>
<tr>
<td>February</td>
<td>1,104.50</td>
<td>1,333.67</td>
<td>1,740.50</td>
<td>2,510.98</td>
<td>2,260.00</td>
<td>3,843.02</td>
</tr>
<tr>
<td>March</td>
<td>1,156.50</td>
<td>1,424.62</td>
<td>1,745.50</td>
<td>2,605.72</td>
<td>2,368.00</td>
<td>4,020.34</td>
</tr>
<tr>
<td>April</td>
<td>1,209.50</td>
<td>1,500.95</td>
<td>1,785.50</td>
<td>2,718.74</td>
<td>3,165.00</td>
<td>4,378.17</td>
</tr>
<tr>
<td>May</td>
<td>1,263.50</td>
<td>1,603.44</td>
<td>1,821.50</td>
<td>2,848.43</td>
<td>3,279.00</td>
<td>4,688.74</td>
</tr>
<tr>
<td>June</td>
<td>1,316.50</td>
<td>1,747.25</td>
<td>1,854.50</td>
<td>3,004.57</td>
<td>4,425.00</td>
<td>5,287.92</td>
</tr>
<tr>
<td>July</td>
<td>1,369.50</td>
<td>1,852.59</td>
<td>1,884.50</td>
<td>3,093.10</td>
<td>4,887.00</td>
<td>5,844.16</td>
</tr>
<tr>
<td>August</td>
<td>1,421.50</td>
<td>2,077.05</td>
<td>1,910.50</td>
<td>3,162.92</td>
<td>5,327.00</td>
<td>6,316.33</td>
</tr>
<tr>
<td>September</td>
<td>1,472.50</td>
<td>2,175.67</td>
<td>1,933.50</td>
<td>3,264.78</td>
<td>5,807.00</td>
<td>6,737.26</td>
</tr>
<tr>
<td>October</td>
<td>1,522.50</td>
<td>2,209.37</td>
<td>1,952.50</td>
<td>3,447.25</td>
<td>6,247.00</td>
<td>7,129.06</td>
</tr>
<tr>
<td>November</td>
<td>1,571.50</td>
<td>2,285.85</td>
<td>1,972.50</td>
<td>3,551.67</td>
<td>6,774.00</td>
<td>7,764.31</td>
</tr>
<tr>
<td>December</td>
<td>1,618.50</td>
<td>2,343.17</td>
<td>1,992.50</td>
<td>3,610.99</td>
<td>7,016.90</td>
<td>8,492.05</td>
</tr>
</tbody>
</table>

1/ PPP corresponds to an average of estimates purchasing power parity exchange rates constructed with WPI and CPI indices of Argentina and U.S. 1978 is the base period.

Table 9: DOMESTIC AND INTERNATIONAL PRICES OF INTERMEDIATE STEEL PRODUCTS (current U.S. dollars per ton), 1976-1981

<table>
<thead>
<tr>
<th>Year</th>
<th>Coils laminated in hot</th>
<th></th>
<th>Coils laminated in cold</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic (1)</td>
<td>International (2)</td>
<td>(1)*(2)</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>441</td>
<td>223</td>
<td>1.98</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>481</td>
<td>198</td>
<td>2.43</td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>505</td>
<td>282</td>
<td>1.79</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>626</td>
<td>347</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>906</td>
<td>333</td>
<td>2.72</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>859</td>
<td>318</td>
<td>2.70</td>
<td></td>
</tr>
</tbody>
</table>

1/ Monthly averages between September to December.
2/ Monthly averages between January and June.

BIBLIOGRAPHY

Arriazu, K. "Panel Discussion on Southern Cone", IMF Staff Papers, 1983.


Macinea, J.L. The Use of the Exchange Rate as an Anti-Inflation Instrument in a Stabilization - Liberalization Attempt - The Southern Cone Experience (Argentina, Chile, Uruguay), Ph.D. Dissertation, University of Minnesota, Department of Economics, 1983.


Secretaría de Comercio. Análisis del Mercado Nacional de Chapa Laminada en Caliente y Frio, (a) and Marco Analítico y Estimaciones Empíricas del Costo Social y las Transferencias del Ingreso en el Mercado Automovilístico, Siderúrgico y del Papel (b), (Mimeo) Subsecretaría de Comercialización, 1981

Techint. Boletín Informativo, (several issues).