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AGRICULTURE AND GOVERNMENTS IN AN INTERDEPENDENT WORLD

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*Argentine Interactions Between the Adjustment Programme and the
Agricultural Sector*

INTRODUCTION

Between January and June 1985, the monthly Argentine Consumer Price Index (CPI) rose by 25 per cent. Projected on an annual basis, this would have meant an inflation rate of 1500 per cent. This was the culmination of an inflationary process, deeply rooted in the Argentine economy for the last 40 years. The country was on the verge of hyper-inflation. At the same time, foreign debt had grown so much, that even its financial servicing implied an enormous burden to the economy (8.4 per cent of GDP in 1985)¹. No further foreign financing was available. The general feeling was of uncertainty and despair. Facing these circumstances, the government decided to take drastic measures to stabilize the economy by means of controlling inflation, creating at the same time long-run growth conditions through foreign economic sector rebalancing. In June, 1985, a severe stabilization and adjustment programme was launched: it was called 'Plan Austral'. Prices and salaries were frozen; a new currency unit with fixed exchange rate was created; and the government committed itself to financing the public expense in a genuine way, within the framework of ambitious goals in public deficit reduction. With these main features the 'Plan Austral' implementation began.

The beginning of the Plan coincided with a drastic reduction in grain prices. After a year and a half the Argentine grain sector had reduced its output by 12 million tons, and the country had lost more than 1000 million dollars in foreign income. This paper attempts to analyze the interplay of the 'Plan Austral' and the agricultural market international crisis on the behaviour of the agricultural sector and on the success itself of the global stabilization and adjustment programme, given not only its anti-inflationary goals, but also those related to the foreign economic sector re-balancing.

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THE ROLE OF THE AGRICULTURAL SECTOR IN THE ARGENTINE ECONOMY

Agriculture accounts for 15 per cent of Argentine GDP – a percentage that has remained almost constant over the last ten years – and performs a fundamental double role: it supplies most of the food and fibre consumed domestically and it is the main source of foreign exchange. The relative weight of agriculture in the GDP is actually much larger if agro-industries are included: meat, grain, sugar, milk products and cotton processing, as well as wine and vegetable oil production are the main activities of the agricultural complex. Farming and agroindustry together account for 36 per cent of GDP.² Furthermore, the linkage between the agricultural and the industrial sector, through the former's demand for inputs and services, is also outstanding. Improved seeds – hybrids and improved lines, tractors and farm machinery production is highly developed. The relative cost of other inputs – mainly herbicides and fertilizers – has traditionally been high in Argentina, thus restraining their use.

Argentina is practically self-sufficient in food. Imports are restricted almost exclusively to tropical and sub-tropical products (coffee, pineapples and bananas), which have a low share in the population's diet. During 1986 food imports totalled US\$314 million or 5 per cent total food expenditure.

Both wheat and meat are staples of the Argentinian diet. During 1986 average consumption of wheat and by-products was 89.5 kg per caput, while that of beef was 84 kg per caput. These high consumption rates are indicative of the incidence of these products in the cost of the so-called 'food-basket' of family staples (4.76 per cent for wheat and by-products and 10.4 per cent for beef). Thus, their price variations impinge significantly on the CPI.

Agricultural exports accounted for between 54 and 68 per cent of total export value in the 1972–87 period. There is no clear trend in this share, since it was 60 per cent at the beginning and in 1985–86, reached its maximum value in 1983 and 1984 and dropped to 54 per cent in 1987. There is, however, a notable variation in the relative importance of crop exports *vis à vis* livestock products (see Table Ia). While crop exports increased from 32 to 55 per cent of total export value in the 1972–6 period (64 per cent during 1984), meat exports dropped from 31 to 5 per cent in the same period (3 per cent during 1985).

From the above-mentioned description arises an outstanding point in the analysis of the agricultural sector role within a stabilization and adjustment programme: most of the exportable agricultural products – grain, oilseeds and beef – have also an important share in the food basket. There is a significant interdependence between the international price, the domestic price and the latter's incidence on the cost of the food basket, and consequently on the evolution of the CPI and on the general level of real salaries. This interdependence, produced by the dual role of agriculture as main source both of food and of foreign exchange, occurs and dominates, in spite of repeated government efforts to isolate the international price from the domestic price through exchange rate and export tax level handling.

In one sense or another, it is quite important to handle these variables in order to highlight either one or the other role of the agricultural sector, that is, to be a source of foreign exchange or of cheap foodstuffs. Later we shall notice the

TABLE 1a *Agricultural and total export value (millions of US\$ and %)*

	Grains (1)	Oilseeds (2)	Other Crops (3)	All Crops (4)=1+2+3	Livestock (5)	All Agriculture (6)=4+5	Crops/ Agriculture (7)=4/6	Total Exports (8)	Agriculture/ Total Exports (9)=6/8
1972	437.51	89.16	91.22	617.89	605.90	1223.79	50.49%	1941.11	63.05%
1973	966.52	236.39	95.87	1298.78	683.18	1981.96	65.53%	3266.20	60.68%
1974	1499.53	262.66	168.17	1930.36	306.90	2237.26	86.28%	3930.70	56.92%
1975	1237.81	178.84	169.98	1586.63	214.30	1800.93	88.10%	2961.30	60.82%
1976	1408.80	302.68	224.35	1935.84	433.27	2369.11	81.71%	3916.06	60.50%
1977	1786.66	799.83	296.18	2882.67	526.94	3409.08	84.55%	5651.80	60.33%
1978	1547.97	1150.84	367.81	3066.63	632.45	3699.08	82.90%	6399.50	57.80%
1979	1947.54	1516.11	367.09	3830.73	932.89	4763.62	80.42%	7809.92	60.99%
1980	1935.64	1440.43	358.95	3735.01	733.51	4468.52	83.59%	8021.42	55.71%
1981	3102.75	1279.96	308.27	4690.98	737.70	5428.68	86.41%	9143.04	59.37%
1982	2087.70	1216.25	317.97	3621.92	684.45	4306.36	84.11%	7624.94	56.48%
1983	3117.99	1427.32	257.57	4802.88	507.62	5310.50	90.44%	7835.84	67.77%
1984	2417.25	2504.61	254.71	5176.59	296.88	5473.47	94.58%	8107.41	67.51%
1985	2442.57	2176.14	280.62	4899.33	271.13	5170.46	94.76%	8396.12	61.58%
1986	1433.65	2052.20	298.56	3784.41	337.42	4121.83	91.81%	6847.87	60.19%
1987	943.73	1811.80	282.97	3038.49	386.29	3424.78	88.72%	6360.22	53.85%

Note: The groups have been made according to the Export/Import nomenclator (NADE).

Grains: Chapters 10 and 11 and items 23.01 and 23.02.

Oilseeds, vegetable oils and by-products: Chapter 12 and items 15.07.00 and 23.04.

Other crops: Chapters 6,7,8 and 9.

Livestock: Chapters 1 and 2 and items 4.01, 02, 03, 04, 05 and 06.

Source: National Institute of Statistics and Census (INDEC).

importance of the interplay between international grain prices, the effective exchange rate, export values and the general price level, within the framework of the international crisis in agricultural product prices and the implementation of the 'Plan Austral'.

The agricultural sector is likewise an important source of public revenues. The questionable export taxes, as well as affecting the sector price and income policy, are a highly valued tool of the central government's tax policy because they are easily connected. It is also important to consider the dual role of the export taxes in order to analyse the sector role within a stabilization programme which has such ambitious goals concerning the public deficit reduction as the 'Plan Austral' had.

In conclusion, the most important feature of the Argentine agricultural sector is the fact that most of its output are tradable products. An important share of these products is devoted to the domestic market in order to ensure self-sufficiency in foodstuffs and raw materials, while the rest is exported, being thus the country's main source of foreign exchange. Therefore, the interplay between international prices and domestic economic policy mainly determines the short-run behaviour of agricultural production. In turn, the said policy exerts its influence both through sector policy measures (as, for example, the export tax level, the support price level, the state purchasing ability, and so on) and macroeconomic policy measures, which are responsible for the real exchange rate level and stability, for interest rates and for credit availability.

AGRICULTURAL SECTOR RECENT DEVELOPMENT: EXPANSION AND CRISIS

Before analysing the agricultural sector behaviour within the framework of the stabilization and adjustment programme, it is important to recall its development during the last two decades. This is worth remarking because the implementation of the 'Plan Austral' occurred at the same time as the international agricultural price crisis. Consequently, and in order to understand the nature and dimension of the influence that the 'Plan Austral' exerted on the sector performance, it is interesting to review the sector trends that had been taking place in the recent past.³

A steady expansion in grain production and exports until the 1984/85 harvest, as well as an abrupt contraction since 1985/86, was a feature of agricultural sector history during the last two decades (1970–87). In fact, grain production – which is the main part of the sector output – grew by 62 per cent during the period between the 1972/73 and 1984/85 harvest. That is, a 4.1 per cent cumulative average annual growth rate. Increases in land productivity explain 80 per cent output growth and the expansion of areas newly devoted to agriculture the other 20 per cent.⁴ This productivity growth, which had begun during the 1960s, is based on the increasing adoption of technological change – mainly improved seeds, technological innovation in agricultural machinery, herbicides and new agricultural management methods. The relatively high cost of other inputs (mainly fertilizers) hindered their use. So one might speak of a 'low cost'

TABLE 1b *Agriculture: volume exported (000 metric tons)*

	Grains (1)	Oilseeds (2)	Other crops (3)	All Crops (4) = 1+2+3	Livestock (5)	All Agriculture (6) = 4+5
1972	6692.05	711.16	396.41	7799.62	600.08	8399.70
1973	10599.89	1323.82	237.00	12160.71	480.90	12641.61
1974	11954.97	829.21	503.23	13287.42	215.88	13503.30
1975	8975.95	834.72	429.32	10239.98	215.74	10455.72
1976	11384.02	1285.40	642.35	13311.77	465.67	13777.43
1977	17492.69	2698.65	736.55	20927.89	464.81	21392.70
1978	14438.18	4701.41	860.14	19999.74	534.65	20534.38
1979	16051.42	5248.23	735.54	22035.20	487.07	22522.27
1980	11088.73	5267.76	618.18	16974.66	322.08	17296.74
1981	19509.39	4343.59	519.57	24372.55	359.05	24731.60
1982	15798.08	4871.93	610.78	21280.79	408.23	21689.02
1983	23654.59	5857.54	637.11	30149.25	327.13	30476.39
1984	18368.94	8610.79	594.46	27574.19	198.21	27772.40
1985	21504.70	9250.69	728.57	31483.96	203.95	31687.91
1986	14591.37	10258.64	621.73	25471.73	199.62	25671.36
1987	10259.22	8317.62	711.70	19288.54	191.59	19480.14

Note: As Table 1.1

Source: As Table 1.1

and 'low risk' technology adoption process, this situation helping producers during low-price periods.

Productivity increases, due to low-cost technological change and to more efficient business management practices, sustained unit cost decrease and grain production profitability increase, caused by yield increases that permitted the amelioration of the anti-agricultural policy effects. In fact, the exchange and tax policy enforced during agricultural expansion periods caused domestic prices of grain to be lower than those obtained in the international market. The Nominal Protection Coefficient for grains (NPC) was 0.63 during the 1970s and 0.65 between 1980 and 1984.⁵ It may be assumed that an economic policy designed to bring domestic prices closer to international ones would have allowed output expansion to be larger than it actually was.

Since 1984, and mainly in 1986, the reduction in grain international prices⁶ caused a severe crisis in the Argentine grain sector, which happened to be more severe because of unfavourable weather conditions as well as of high financing costs and scarce credit resulting from the 'Plan Austral'. The concurrence and interplay of these factors suddenly stopped the growth in the pampa agricultural sector, and caused a sharp reduction of exports: between 1984/85 and 1986/87, grain output diminished from 44 to 32 million tons, while grain, vegetable oil and by-products exports were reduced from 31 to 19 million tons. (See Table 6.) Furthermore, the reduction in production and exports produced also a recession in other economic activities related to the primary sector, such as grain storage machinery and input supply, processing industries and ports. The recession was also felt by employment and salary levels.

FEATURING THE 'PLAN AUSTRAL'

In June, 1985, a hyper-inflationary process was taking place within the framework of a general reduction in the global economical activity level.⁷ In order to cope with this situation, on 14 June the Government announced the launching of a stabilization and adjustment programme: the 'Plan Austral'. This Plan, consisted basically of: a) unlimited freezing of prices and salaries, except for seasonal supply goods and services, such as fruits and vegetables; b) creation of a new currency unit, 'el Austral', which was equal to 1000 'Pesos Argentinos', establishing a fixed exchange rate equal to 0.80 'Austral'/\$1 US\$; c) adjusting all public and private contracts by the use of a deflationary index; and d) financing genuinely consolidated public credit and expenses, so targeting a public deficit of about 2.5 per cent of the GDP in the late 1985. At the same time, a new Memorandum of Understanding with the IMF was signed, allowing the renegotiation of foreign debt services with the commercial banks, thus making the adjustment in the balance of trade easier.

It is worth remarking that before the price freeze, an exchange rate rise was settled, as well as tax and fares increases, in order to increase public revenues. As regards the agricultural sector, this devaluation, which occurred before the price and salary freezing, was compensated for by means of an export tax rise from 18, 21 and 20 per cent to 26.5, 29 and 28 per cent for wheat, corn and soybean, respectively.⁸ It is important to underline this last feature of the criteria applied at the beginning of the 'Plan Austral', because the relationship between tax policy and agricultural price policy is quite important when analysing the sector behaviour within the framework of the global adjustment plan.

The measures described above, applied as a whole, reached a significant success in stabilization during the first year and a half when the adjustment programme was in force, reducing in this way inflationary expectations, increasing income and demand by means of the elimination of the 'inflationary tax', and consequently recreating an atmosphere of confidence among the population, which in turn was translated in to an increase in the level of economic activity. In fact, and after a short contraction period that took place during the first months of the 'Plan Austral', the economic activity level began to recover and during 1986 GDP grew by 5.4 per cent.

To be more specific, the most important achievements of the 'Plan Austral' during its initial period (1985/86) were the drop in the rate of inflation and equilibrium in the public accounts, as well as a relative stabilization in official and non-official exchange rates. In fact, the CPI monthly increase was reduced from 27.8 per cent in May-June, 1985, to a 3.4 per cent monthly average between July, 1986. During the same period, the official dollar exchange rate evolution was 0.80 per cent a month, while the non-official one was 1.7 per cent a month. Regarding the situation of public revenues, the 'Plan Austral' also initially obtained important achievements: the non-financial public sector deficit dropped from 12.5 per cent in 1984 to 4 per cent in 1985.

Nevertheless, in the last three months of 1986 and during 1987, the 'Plan Austral' showed loss of momentum, which reflected a progressive impairment of price stabilization and fiscal adjustment goals: between January, 1987, and

January, 1988, the average monthly inflation rate was 8.9 per cent and the non-financial public sector fiscal deficit rose to 6.1 per cent by late 1987.

The evolution of the above-mentioned situation demanded subsequent price, monetary policy and tax policy readjustments. In relation to the agricultural sector, this readjustment meant the establishment of a reference price system for seasonal products, such as beef, fresh fruits and vegetables; a support price rise for the most important grains of the order of 4 to 10 per cent; and, what is most important, a devaluation (7 per cent) not compensated for by means of a rise in export taxes, which were maintained at an average level of 12 per cent. Later in 1987 the constant public sector unbalance, as well as more serious problems in the external sector, resulted in several complementary measures, aimed at enlarging public sector revenues and increasing exports. The first goal was achieved by means of a considerable tax-collection increase, which in turn was reached through various tax reforms,⁹ and a severe adjustment in the fares of public enterprises. The second goal – export increase – was achieved through a considerable devaluation (24 per cent), within the framework of a division in exchange markets, by which a commercial exchange rate for exports and imports and a financial exchange rate were created. Concerning the agricultural sector, it is important to note that the devaluation that took place in October, 1987, was not compensated for by an export tax rise, which had been eliminated for almost all grains since January, 1988 (and announced in July, 1987). These devaluations were followed by an increase in the effective agricultural exchange rate. In fact, between January and December, 1987, that exchange rate rose by 12 per cent.

The results of this last readjustment (which began in October 1987, through the devaluation and the exchange rate market division, and which went on during the first months of 1988, because of the difficulties found in the parliamentary approval) cannot be analysed in the present paper, because its issue, that is, April, 1988, took place at the same time as the recent impact of fare adjustment in the general price level, which caused a CPI rise of 14 per cent in March 1988. It is estimated that the tax flow emerging from the latest tax reforms will narrow the public deficit during the first six months of this year, thus compensating for the inflationary impact of fare increase.

RECIPROCAL EFFECTS BETWEEN THE 'PLAN AUSTRAL' AND THE AGRICULTURAL SECTOR

Agricultural policy

Simultaneously with the launching of the 'Plan Austral' Buenos Aires prices of the main agricultural exportable products were experiencing sharp declines. After one year and a half (1986/87 harvest) grain production decreased to 32 million tons, which represented a 12 million ton drop in grain output and, hence, in export trade as compared with the 1984/85 harvest season.

The following is one of the main questions arising from the analysis of this abrupt output decrease, which put an end to the important expansion already described. To what extent was it the consequence of the drop in world agricultural prices, and consequently beyond the control of the Argentine policy makers or

could it be explained as the interplay between this drop and the 'Plan Austral' effects on production; furthermore, what were the consequences of the drop in grain production in regard to the goals of the 'Plan Austral'?¹⁰

Between June, 1984, and June, 1985, the simple average of wheat, corn, sorghum and soybean quotations dropped by 24 per cent.

Devaluation at the 'Plan Austral' outset implied an increase in export taxes going from an average of 23 per cent for wheat, corn, sorghum and soybean in June, 1984, to 29 per cent in June, 1985.

Consequently, the grain export average price, net of export taxes, decreased from 127 US\$/ton to 89 US\$/ton, that is, a 30 per cent drop.

	<i>f.o.b. Buenos Aires prices</i> (Current US\$/ton)			<i>Export taxes (%)</i>			
	June 1984	June 1985	June 1986	June 1984	June 1985	June 1986	
Wheat	142	107	84	Wheat	18	26.5	15
Corn	140	111	89	Corn	25	29	21
Sorghum	109	90	74	Sorghum	25	28	20
Soybean	271	196	188	Soybean	25	32.5	27
Average	165.5	126	108.7	Average	23	29	20.7

TABLE 2 *Main agricultural exports (as % of total output)*

	Wheat %	Corn %	Sorghum %	Soybeans %	Sunflower %	Total %
1972	26.11	51.28	26.47	0.00	0.00	34.67
1973	33.27	41.57	41.59	8.07	68.03	39.41
1974	18.83	55.80	51.85	7.68	36.22	42.85
1975	27.94	50.43	44.45	4.23	55.09	41.19
1976	35.95	52.60	67.40	9.22	44.89	47.60
1977	50.90	65.42	63.23	2.84	83.50	56.71
1978	30.44	61.08	63.61	2.63	69.68	50.56
1979	52.28	68.49	62.88	87.66	66.09	64.99
1980	54.55	55.07	51.21	87.76	71.67	60.65
1981	47.40	70.64	65.32	75.65	72.06	64.62
1982	46.36	54.31	66.99	75.30	57.85	58.36
1983	68.10	71.96	71.09	83.49	71.55	71.45
1984	56.72	58.51	61.39	84.74	69.35	63.80
1985	71.32	59.17	53.32	91.18	78.27	68.80
1986	47.71	57.61	46.10	96.47	74.30	63.38
1987	46.85	42.84	34.33	80.83	80.53	54.81

Note: Exports, correspond to calendar year.

Source: SAGYP, INDEC and Bolsa de Cereales.

Though it is obvious that the total elimination of export taxes could not compensate for the serious fall affecting export prices, it is possible to assert that, from the sector point of view, their elimination would have softened the strong drop in production observed since the 1985/86 season. Several empirical studies have shown that the elasticity of supply of Argentine agricultural production is high and positive.¹¹ Hence, the production decrease since 1985 is mainly the result of the fall in domestic prices as a consequence of the drop in international prices, which was not counterbalanced by a reduction of export taxes together with negative short-run expectations and a higher cost of capital.

Furthermore, there is the importance of export taxes as a source of public revenues. At the outset of the 'Plan Austral' they were 10 per cent of those revenues. There is not a simple and easy way to substitute for the tax, though its negative effect is admitted in relation to resource allocation, long-run growth and adequate use of Argentina's comparative advantage. Given the ambitious goals related to the public deficit reductions, the insistence of the official policy maker to defend the export tax updating was understandable. In this way, the officials responsible for economic policy were clearly taking consistent short-run decisions, as regards the tax goals of the stabilization plan, but inconsistent long-run ones, concerning the economic reactivation goals which were necessary to consolidate the stabilization and to back up the external adjustment by means of export increases.

Later, export taxes became less important as a source of public revenue, because of three events working in the same direction:

- international prices fell with a subsequent decrease in the tax base;
- output decreases resulted in an export drop and a consequent reduction in the amount collected through this tax;
- an improvement in the global collection system, due to the stabilization plan itself.

Export taxes becoming less important as a source of public revenue and the continuous claim for their elimination by the producer associations, led the Government, in the end, to an important cut-down of those taxes: in June, 1987, average export taxes were reduced to 12 per cent and the following month it was decided that export taxes on certain crops (wheat, corn and sorghum) would be reduced to nil in 1987/88 crop year, while those on soybean and sunflower would be 11 and 13 per cent, respectively; vegetable oils and by-products would be cut to nil.¹²

In summary, export taxes are reduced after the output drop in the 1986/87 crop year. That reduction took place in a period when the sector had already lost 12 million tons of output.

Sector policy

In order to achieve the 'Plan Austral' stabilization goals, based on a strict fiscal and monetary policy, a period of fluctuating and positive real interest rates and low supply of credit was faced. Hence, because agricultural products were

TABLE 3a *Area planted in grains and oilseeds (000 of ha)*

Crop Year	Main Grains	Other Grains	Oilseeds	Total
1972/73	12852	5290	2719	20861
1973/74	11500	5116	2484	19100
1974/75	11656	4943	2495	19094
1975/76	11807	5181	2659	19647
1976/77	12952	5231	3262	21445
1977/78	10350	5025	4802	20177
1978/79	11060	4549	4699	20308
1979/80	10194	4188	5220	19601
1980/81	12596	4234	4296	21127
1981/82	12973	3767	4804	21544
1982/83	13507	4120	5327	22954
1983/84	13234	3713	6018	22965
1984/85	11660	3522	6417	21599
1985/86	10930	3156	7274	21360
1986/87	9800	2582	6590	18972
1987/88	8887	3190	7105	19182

Note: Main grains include wheat, corn and sorghum.
Oilseeds include sunflower, linseed, peanuts and soybeans.
Other grains include oats, barley, rye, millet, birdseed and rice.

Source: SAGYP.

TABLE 3b *Grain and oilseeds output (000 ton)*

Crop Year	Main Grains	Other Grains	Oilseeds	Total
1972/73	22560	2658	1922	27140
1973/74	22360	2485	1966	26811
1974/75	18500	1639	1861	22000
1975/76	19485	1864	2394	23743
1976/77	25900	2319	3337	31556
1977/78	22200	1793	5170	29163
1978/79	23000	2113	6200	31313
1979/80	17460	1559	6099	25118
1980/81	28230	1365	5785	35380
1981/82	25900	1243	6959	34102
1982/83	32100	1557	7357	41014
1983/84	29400	1551	10166	41117
1984/85	31700	1687	10545	43932
1985/86	25100	1150	11684	37934
1986/87	20950	1155	10592	32697
1987/88	21676	1663	13599	36938

Note: As 3a.

Source: As 3a.

TABLE 4 *Buenos Aires f.o.b. prices, exchange rate, export tax level, and export price for wheat, corn and soybeans*

Crop Year	f.o.b. Price (US\$/Ton)	NRE(A/US\$)	Export Tax %	ERE(A/US\$)	Export Price (A/Ton)
Wheat					
1982/83	148.00	0.747	25.0	0.560	82.92
1983/84	129.00	0.727	18.0	0.596	76.90
1984/85	113.00	0.772	18.0	0.633	71.56
1985/86	105.00	0.740	15.0	0.629	66.05
1986/87	84.00	0.733	5.0	0.696	58.49
1987/88	96.00	0.761	0.0	0.761	73.09
Corn					
1982/83	128.00	0.745	25.0	0.559	71.49
1983/84	138.00	0.656	25.0	0.492	67.86
1984/85	109.00	0.794	21.0	0.627	68.37
1985/86	86.00	0.712	21.0	0.562	48.37
1986/87	74.00	0.719	15.0	0.611	45.25
1987/88	88.00	0.785	0.0	0.785	69.08
Soybean					
1982/83	227.00	0.740	10.0	0.666	151.11
1983/84	284.00	0.645	28.0	0.465	131.96
1984/85	201.00	0.800	27.5	0.580	116.63
1985/86	188.00	0.713	27.0	0.520	97.81
1986/87	199.00	0.727	15.0	0.618	123.03
1987/88	220.00	0.785	11.0	0.699	153.70

Note: NRE is Nominal Rate of Exchange, deflated by the average of CPI and the Nonagricultural Wholesale Price Index (IPMNA), and inflated by the USA CPI, expressed in June 1985 values. The ERE stands for effective exchange rate and is the result of multiplying the NRE by (1-Export tax). The last column to the right is the result of multiplying the f.o.b. price times the ERE. FOB prices, correspond to the marketing season: Wheat: December–January–February, Corn: March–April–May, Soybeans: April–May–June.

Source: SAGyP, JNG, INDEC and BCRA.

scarcely financed, the effect of their price fall upon the formation of capital within the sector declined severely. For example, the total supply of agricultural credit decreased from 26 per cent in 1985 to 15 per cent in 1987, in terms of agricultural GDP.¹³ This policy departs from an Argentine historical tradition: credit at a subsidized rate has been used to compensate producers because of the existence of maximum prices, overvalued exchange rates and the enforcement of export taxes.

As already mentioned, the Argentine agricultural sector plays a dual role: it is a producer of goods for the home market and is the main source of foreign exchange for the country. In order to fulfil the stabilization goals, the domestic prices of those goods must be kept at 'reasonable' levels. The fall in the international prices of these products helped to reach the anti-inflationary goals of the stabilization programme. Nevertheless and according to the objectives of the foreign adjustment programme - mainly the increase of the surplus in the balance of trade - the international price fall and the lack of timely counterbalancing measures gave rise to low profitability expectations, which later turned into an important reduction of the planted area and grain production during 1985/86 and particularly in 1986/87. This output and price decrease meant a drop in export value and volume, which reached US\$1.9 billion in 1987 relative to 1985 (Table 1a).

Thus, it could be taken as a conclusion that as regards agricultural policy, the 'Plan Austral' price stabilization goals were inconsistent in relation to the external adjustment ones. While the former benefited by the drop in international prices, the latter was not given enough attention, resulting in production and export decreases and the impossibility to reduce the deficit in the balance of payments current account.

CONCLUSIONS

No doubt, the 'Plan Austral' was an adequate answer to face an uncontrolled economy. Domestic causes and burden of the foreign debt caused the 'Plan Austral' to be highly necessary. As regards price stabilization, the success of the 'Plan Austral' during the first year was unquestionable. Nevertheless, during this period, and while, the 'Plan Austral' had a wealth of general support, the possibility to materialize structural changes tending to modify the very roots of maladjustment was missed. This resulted in the reappearance of structural unbalance after 18 months and the 'Plan Austral' underwent subsequent crises which were partially overcome by means of adjustments to the freezing scheme and a highly restrictive monetary policy that had doubtful results in the global performance of the productive process.

Towards the end of 1987 and in early 1988 an effort to attack the structural roots was observed: as shown by the export tax cut-off, the steady improvement of the exchange rate, the tax reform, the gradual opening-up of the economy and the launching of serious efforts to reduce public expense.

The 'Plan Austral' experience shows the difficulty of achieving adjustment together with stabilization if structural changes are not introduced at the very beginning. In the case of the agricultural sector, these changes should be aimed

mainly at two areas: tax policy and the modernization of grain and meat, domestic and foreign, marketing systems. Both changes would have served to lower the difference between f.o.b. and farmgate prices for exportable agricultural products, compensating in this way the impact upon profitability, which was seriously affected by the crisis in the international market.

The essence of the agricultural tax reform consists in the replacement of export taxes by a tax on unimproved land, which will also substitute the tax on capital invested in the sector. This change would have caused a more rational resource allocation by a more direct transfer of the international relative prices and would have put an end to the permanent argument for or against export taxes within the government and between it and the producers' representatives.

Summing up, such a change from the very beginning of the 'Plan Austral', would have made domestic stabilization goals as well as foreign adjustment and growth ones coincide through properly assured public revenue policies on the one hand, and better prices and more sensible resource allocation on the other.

The reform in the commercial system implies structural and institutional changes in the public and private system related to grain transportation and marketing; that is, regulations and management dealing with domestic grain transport, port labour costs and management, as well as high transaction costs between the farm gate and the export point.

If the difference between f.o.b and farmgate prices had been reduced, specially in times of low international prices, this would have caused an important income compensatory effect for grain producers. The 1986/87 output was 11 million tons lower than the 1984/85 record one of 44 million tons. This export decrease produced a drop in exportable surplus and a loss of about US\$ 1000 billion. This figure sums up clearly the consequences of the dilemma faced by the officials responsible for the macroeconomic decisions within the framework of stabilization and foreign adjustment policies. In order to achieve the first goal, the measures which would compensate for the drop in international grain prices were delayed. This situation resulted in a high output decrease, and also in a reduction of exportable carry-over, which affected the foreign adjustment goal due to its impact on the trade surplus.

A wrong judgement about the short-run reaction of agricultural supply to the abrupt price variation lies behind this unsolved problem. Macroeconomic policy decisions – within the framework of the stabilization and adjustment programme – were taken on the wrong assumption of a global agricultural inelastic supply. This did not prove to be so, and its result was an important drop in output. The lack of right judgement about the agricultural supply to price variation has been a hard but important lesson for future decision makers as regards macroeconomic policy, given the stabilization and adjustment goals of the 'Plan Austral'.

In the long run, the sector contribution to global economic adjustment will be given further importance once a clear awareness of the real possibilities of the agricultural sector, in its dual role as both food and foreign exchange supplier, is recognized. This awareness will then give place to an effective modernization and cost reduction effort in the marketing process; to a new impetus in technology generation and in the transfer process; to the diversifying of agriculture towards high value products and new markets; and to the integration of the primary sector with the agro-industrial processing and export complex. These principles are necessary for a continuous and long-run adjustment process within the Argentine economy.

NOTES

¹Source: Central Bank of the Argentine Republic – BCRA –.

²Source: Argentine Rural Society (Scotland Rural Argentina, SRA), Special Bulletin No 1, 'Agroindustrial Complex' (Cuaderno Especial No 1, 'Complejo Agro Industrial'), Buenos Aires, March 1987.

³The analysis of the interplay between the 'Plan Austral' and the agricultural sector evolution will be mainly based on the grain sub-sector (that is, wheat, corn, soybean, sunflower and grain sorghum) which has the main share in the sector output (cereals and oilseeds were 39 per cent of Agricultural GDP between 1985 and 1987).

⁴Source: Obschatko, Edith S. de, *Economic and Technological Change in Pampean Agriculture (1950–1984)* (*La transformación económica y tecnológica de la agricultura pampeana (1950–1984)*). Buenos Aires, Ediciones Culturales Argentinas, 1988.

⁵Source: Cirio, Felix, *Agricultural income distribution and modifications facing policy changes*. (*Distribución del ingreso agrícola y modificaciones del mismo frente a cambios de política*), CISEA, Paper No. 11, Buenos Aires, June 1986.

⁷As regards wheat, the f.o.b. Buenos Aires price dropped from US\$ 129/ton in 1983/84 harvest season to US\$ 84/ton in 1986/87. This meant a 40 per cent fall in constant terms.

⁸CPI variation was 1200 per cent between June, 1984 and June, 1985, while GDP drop was estimated at 4.6 per cent for the same period.

⁹It is worth remarking that these export tax levels were applied to 1984/85 harvest season carry-overs, and between December, 1985 and May, 1986, export taxes were reduced to the levels that were previous to the 'Plan Austral'. Even in the case of wheat, an export tax reduction occurred up to 15 per cent.

⁹Such as, for example, a tax-collection increase of GDP 5 per cent, through applying a tax to cigarettes, new measures aimed at Revenues Tax evasion, a rise in Check Tax and a new Obligatory Saving.

¹¹The analysis does not embrace the fresh fruit and vegetable sub-sector, because this is the only component of the food basket excluded from price control system since the 'Plan Austral' outset.

¹¹Obschatko, Edith S. de, *Grain production and export projections (1990–1995)* (*Proyecciones de producción y exportación de granos (1990–1995)*). Co-operation Project for Argentine Agricultural Sector Modernization. SAGyP/IICA, 1987.

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¹²Afterwards, facing the pressures exerted by the American agricultural lobby, soybean oil export was reestablished at 3 per cent.

¹³Source: BCRA. Síntesis Estadística. Different numbers.

DISCUSSION OPENING – CARLOS STENERI

The Reca and Garramon paper points out lucidly a set of important aspects related to the effects on the Argentinian agricultural supply generated through the implementation of anti-inflationary policies framed on 'Plan Austral', during the past 1985–7 period. I share, for the most part, their major points. At this regard I would like to make some supplementary remarks.

First, I would stress the fact that macroeconomic decisions were taken assuming an inelastic supply of agricultural products, mainly in grains. Empirical evidence in Argentina shows the contrary. This wrong assumption was the necessary justification to impose short-term measures like a freeze on prices or an increase in export taxes in order to compensate the devaluation effects on

agricultural prices and to improve public expenditure financing. All these, being obtained without the risks of generating any kind of distortions in production or resource allocation in the short run. These 'traditional' ingredients found in many adjustment programmes, induced a deterioration of relative agricultural prices and therefore a reduction in production has to be expected.

A second aspect worth pointing out is related to the risks involved with the adoption of Plan Austral anti-inflationary type programmes in terms of some unwanted side effects on export orientated activities like agriculture. In this regard the Argentinian and Brazilian experiences (Plan Cruzado) are very illuminating examples. My point is that the source of inflationary pressures stemmed from the fiscal imbalance (financial and non financial). If this is not restored on a strong and long term basis, the causes of inflation will continue and the upsurge of prices will appear as soon as the repressive measures on certain variables are wiped out. Focussing on the unwanted side effects, this kind of 'short term' fighting inflation programme generates an overvaluation trend of the real exchange rate as a result of the drastic increase in the demand for money mainly due to the higher real interest rates and the freeze on prices. Therefore one of the consequences of the anti-inflationary programme is the rise of the real rate of interest as a way of promoting the increase of the demand for money and the feasibility of deepening of fiscal deficit financing through open market operations, nominated in australes. At the same time, the drastic freeze on prices and nominal exchange rate devaluation gives, necessarily, the reinforcement of abnormally high real interest rates, nominated in australes. In such a scenario, a fall in production has to take place. At the same time, the freeze on prices is one of the cornerstones of these programmes, which in turn distorts even more the relative quotations between tradables and non tradables, because these last are mainly composed of services whose ceiling enforcement is very difficult to make.

At the first stage of these programmes, people begin to enjoy a temporary increase in their real incomes. Consumption increases and an excess demand for goods appears. The result is also a deterioration of tradable relative prices against the quotations of non tradables, mainly of those goods whose prices are more easily enforced (foodstuffs). An additional effect is an upsurge of imports which reinforces that situation. Within this context also a deteriorating path of the relative prices of the agricultural products could be expected and an additional downward pressure on production is very feasible.

Obviously, all these aspects were reinforced by the fall in the international quotations of agricultural prices. The 'fine tuning' which was attempted in the second tranch of the programme regarding the improvement of the agricultural prices was already out of timing. Producers' expectations were already sceptical respecting the results of obtaining the anti-inflationary targets and for them, again, the costs of such kind of adjustment will rely on agricultural activity.

This point leads me to a third reflection. If these are the costs which have to be paid in order to fight a situation at the verge of hyperinflation, – then drastic measures have to be adopted related to the original sources which fuelled that situation, mainly the fiscal deficit (financial and non-financial). If this is not pursued, the farmers who are accustomed to shape their expectations in an inflationary environment, will not adapt to the new situation that the policy makers (and politicians) are announcing, regarding low inflationary levels. As a

practical matter, if these drastic measures are not taken, the economic agents perceive that the package will not last for a long period, and as a result they expect that a new inflationary wave will take place in the near future.

In the Argentinian case, some fiscal imbalances from the monetary system and public enterprises, and other potential ones, were not well settled down from the beginning of the Plan. The non-financial deficit declined at the first stage, but the general feeling was that the overall deficit was temporarily contained by artificial means. Within this environment, rural entrepreneurs realized that financial speculation was more profitable than productive activities, or at least a 'wait and see' attitude was the optimal rule in order to know more precisely the path of future events.

The previous general comments lead me to a substantial remark connected with an important point: the interdependence between the making of sectoral policies and its co-ordination with global macroeconomic ones. It is demonstrated once more that macroeconomic policies (exchange rates taxation, fiscal deficit financing, anti-inflationary packages like price controls) affect directly in one way or another the performance of the productive sector activities, in this case the agricultural one. In such a scenario there is little chance that the institutional head responsible for policies in the agricultural sector could implement effective countervailing measures in order to alleviate the costs imposed through such global stabilization adjustment programmes. Countries stressed in the middle of a crisis have to adopt drastic adjustment measures. The point is that they are adopted at the top cabinet level, that is, say, the President, the Minister of Finance, his advisers and the eventual participation of the Governor of the Central Bank. Surely the Minister of Agriculture (or Industry) is excluded in these deliberations, at least in the first steps of the decision making process. The nature of the problem to be solved, with well defined monetary and fiscal roots, promotes this kind of situation. In countries with a long tradition of this sort of disequilibrium, the cornerstone of the design of sectoral policies is located closer to the Minister of Finance than the sectoral Ministers, in this case the Agricultural Secretary. The correction of permanently short-run disequilibrium makes no room for the development of a long-run growth strategy. In effect, many policies taken in this context due to fiscal needs, are necessarily contradictory with a long run sectoral growth approach. This is a lesson many times neglected by policy makers and politicians. When there is a situation of permanent inflation the degree of freedom of making sectoral policies is practically nil. In this regard, the sort of policies which could be enforced by the Ministry of Agriculture are more related to the preparation of legislation on control of vegetable and cattle diseases, sanitary regulations, investigation and extension programmes, than to take decisions on those key variables which determine the sectoral growth path (that is real exchange rates, rates of interest, tax policy, and so on). Permanent decisions related to these last variables are the tasks of the Ministry of Finance, and in certain cases of entities like the Central Bank, as a by-product of the unstable economic environment promoted by macroeconomic disequilibria.

Such comments do not intend to ignore the key role of who has to be the head of economic policy in order to maintain the necessary internal macroequilibrium. But, many times the instrumentation of adjustment policies on a day by

day basis, without a clear long-run growth strategy – principally in terms of sectoral activities – leads to a false feeling or fictitious situation being that a stable equilibrium point has been reached. The real truth is that in that scenario global equilibrium was obtained thanks to imposing an additional burden on export orientated activities, in this case the agricultural sector. On this ground, events like the effects of Plan Austral on the Argentinian agricultural sector are the results of second or third best policies, which increases the burden of the traditional bias against export orientated activities like agriculture.