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9. ABSTRACT

The present work has been carried out for the purpose of studying the modifications in the patterns of consumption of the Chilean population, modifications promoted by the policy of redistribution of income carried out during the year 1971.

In order to study the impact that the policy of redistribution of income carried out during 1971 had on the consumption of foodstuffs, it has been necessary to analyze the existing antecedents that might reflect the situation prevailing in the last years prior to the initiation of that economic policy. The most complete existing information related to consumption by income strata are for the years 1968 and 1969, and are complemented by other indicators, such as the distribution of income and the composition of the total expenditure by income strata for those same years.

Using as a basis the "Poll [survey] of Family Budgets," the author proceeded to select the nutritional products that make up the most habitual Chilean diet.

The consumption of foods has been stratified in accordance with different levels of income, which were grouped in terms of the sueldos vitales that the families received. The stratification is the same as that used in the case of the distribution of income.

The redistribution of income has come about principally through the readjustments of wages and salaries, which were increased by 35 percent, so that during the year 1971 the Consumer Price Index was reduced to 20.1 percent.

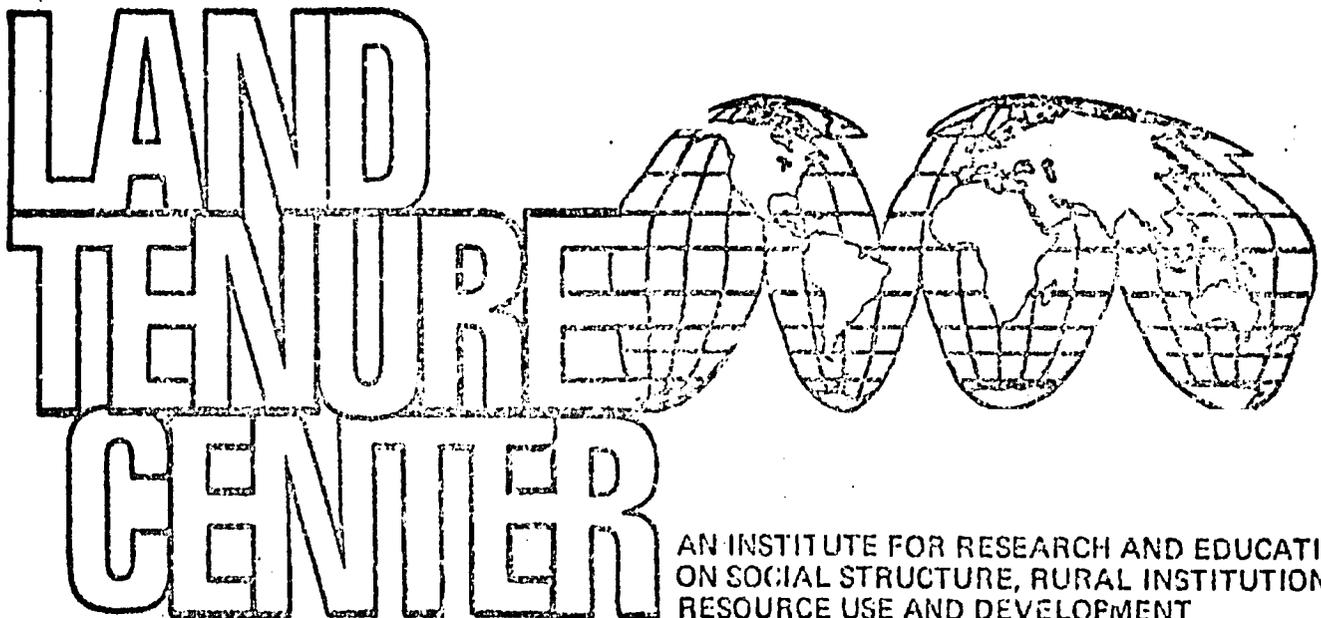
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by
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*This paper was originally prepared for discussion with staff members of the Chilean Agricultural sector planning office (ODEFA) in 1972 and early 1973.

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All views, interpretations, recommendations, and conclusions are those of the author and not necessarily those of supporting or cooperating agencies.

Machicado S , Flavio

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FOREWORD

The present work has been carried out for the purpose of studying the modifications in the patterns of consumption of the Chilean population, modifications promoted by the policy of redistribution of income carried out during the year 1971.

I wish to express my thanks for the collaboration of the authorities of the government of the Unidad Popular who permitted this study, especially the office of Agricultural Planning (ODEPA) and the Office of National Planning (ODEPLAN). Also, I must express my gratitude for the opportunity granted me by the FAO to advise the aforementioned governmental agencies in this important field. On a personal note I wish to point out the participation of the economists Liliana Bucher, Margarita Hepp, and Ana María Jul, without whose cooperation it would not have been possible to carry out this investigation.

It is to be hoped that the effort we have made will help to confront rationally the problem of the distribution of foods, which is so difficult to balance by the exclusive mechanism of the marketplace.

Flavio Machicado Saravia
FAO Expert on Institutional Credit
August, 1973

CHAPTER ONE: ANALYSIS OF THE CONSUMPTION OF ESSENTIAL FOODSTUFFS; OF THE TOTAL CONSUMPTION, AND OF THE DISTRIBUTION OF INCOME, FROM 1968 TO 1970

In order to study the impact that the policy of redistribution of income carried out during 1971 had on the consumption of foodstuffs, it has been necessary to analyze the existing antecedents that might reflect the situation prevailing in the last years prior to the initiation of that economic policy. The most complete existing information related to consumption by income strata are for the years 1968 and 1969, and are complemented by other indicators, such as the distribution of income and the composition of the total expenditure by income strata for those same years.

This chapter has been divided in accordance with the methodological order that was established to approach the subject matter. That is, we began by studying the pattern of consumption resulting from a survey in terms of the spending that it represents and the quantities consumed, as well as the calories and proteins that those quantities involve. Then we established, always in terms of the survey sample, the different tendencies of consumption shown by the polled population in proportion as it is found in a given level of income and spending. In this case it was considered important to calculate the elasticity of spending on the consumption of foodstuffs experienced upon passing from one level of income to another, higher level. For this purpose it was necessary to consider the distribution of income in the years of the inquiry, as well as in the year of the transition from an economic policy which maintained a regressive distribution of income to a policy which carried out a redistribution of the income in a liberal and spectacular way. In addition, we wished to demonstrate that, from the point of view of the distri-

tribution of income, the situation between 1969 and 1970 had not experienced any change, for which reason the results of the survey in relation to pattern, composition, and level would not have varied significantly in any sense. In this way it was possible to apply these results from the year 1968-1969 to the year 1971, in order to facilitate the comparison between 1970 and 1971. Nevertheless, with the object of assimilating the effect on consumption of the small increase in income and spending that took place between 1969 and 1970, the projection of the consumption experienced during 1971 has been calculated taking into account not only the variation existing between 1970 and 1971, but also that between 1969 and 1971.

A. PATTERN OF CONSUMPTION OF FOODSTUFFS ACCORDING TO LEVELS OF INCOME 1968-1969.

It has been possible to establish a pattern of consumption of foods according to income strata based on the National Poll [Survey] of "Family Budgets of the year 1968-69," carried out by the Administration of Statistics and Census, the present National Institute of Statistics.

The limitations of this work are particularly related to its projection on a national level, due to the fact that the sample was studied only for Greater Santiago and not for the country as a whole. The reason is that this information was not processed at this level.

Another limitation is related to the type of sample taken and the purpose that it had. Thus, the survey was directed towards determining the spending of each family group under different headings for the purpose of relying upon a more diversified and up-to-date Consumer Price Index. Therefore, we are not dealing with a survey designed to study the type and quantity of foods consumed by each family group in the different income strata. As a result it is possible to make errors by deducing from the amount of expenditure the quantities and qualities of each product, since spending is considered as an essential category of the survey. In reality, the most influential element has been the implied price used to compute this estimate. For this reason we have left out the results of the survey in some cases, and we have substituted the availability of foods that existed in each one of these periods. Fortunately, these cases are exceptional.

The National Poll of Family Budgets examined 410 nutritional headings. Of these, there are several headings that do not specify a determined item, since they refer, for example, to expenses for such items as "Complete lunch," "Separate courses," and "Breakfast."

In order to approach the study of the pattern of consumption we proceeded to analyze each one of the headings, comparing the results of overall demand derived from the survey with the apparent supply existing for that period. In those cases in which the results of the survey showed consumption that was excessive or that could not be adequately explained, we proceeded to correct it on the basis of apparent supply, trying to maintain a proportionate relationship to the consumption by income strata shown in the completed survey.

The different goods were grouped under 23 headings¹ that correspond to the most important agricultural products, from the point of view of both production and imports:

1) Consumption by income strata in quantitative terms. The consumption of foods in quantitative terms prevailing until the redistribution of income in 1971 has been analyzed from two specific points of view: on the one hand we have taken into consideration the relative proportion that the different levels of consumption represent in relation to the highest income stratum. On the other hand, the different levels consumed have been expressed in terms of calories and proteins for the purpose of characterizing those levels in a unified way.

The different goods being analyzed have been separated into four groups, which are: Cereals and legumes, Meats, Fish and Seafood, Dairy products, oils and fat products, and eggs. Various products (onion, potato, sugar, bananas, coffee, tea, tomato sauce, salt, beer).

Before analyzing the different nutritional groups it is advisable to point out the fact that 54.3 percent of the families are in the income stratum of 0-2 sueldos vitales (SV, the legal minimum wage), 25.7 percent are in that of 2-4 sueldos vitales, 8.3 percent are in that of 4-6 sueldos vitales, 2.8 percent are in that of 6-8 sueldos vitales, and finally, 8.9 percent of the total number of families are in the stratum of 8 or more sueldos vitales.

Cereals and Legumes

This group of goods, within which wheat is the most important, carries special significance since it is the one that contributes the major share of nutrients, especially for the largest sector of the population, which is concentrated in the first income stratum of 0-2 sueldos vitales. Also, they are the most basic foods that make up the daily diet of this family group.

For the reason just indicated one might think that the most modest family groups consume a greater proportion of these goods in relation to the other families of higher income. Through the present study it has been possible to establish that this belief is only partly true, since, as we can see in Tables 1 and 2, this superiority appears under only three headings, namely those of Common bread, Lentils, and Dried Peas.

¹By breaking down these 23 headings we would have 49 types of goods, since we will analyze the derivatives of wheat, the kinds of cuts in the meats, the kinds of milk, etc.

Table 1

Cereals and legumes. Proportion of the level of family consumption in relation to the highest income stratum.
(In percentages)

Income strata (sueldos vitales)	0-2	2-4	4-6	6-8	8 & more
1. Rice	76	94	90	100	100
2. Wheat (its derivatives)					
- Unbleached flour	41	55	68	48	100
- Cake flour	2	16	36	28	100
- Pastas	79	97	92	83	100
- Common bread	207	242	162	119	100
- Special bread	45	64	74	82	100
3. Chickpeas	55	100	84	53	100
4. Lentils	107	124	89	71	100
5. Dried beans	110	124	90	73	100

In addition, if one considers the total amount of bread consumed by the highest income stratum, it would reach a total consumption of 591.1 kilos of bread per family per year, while the family group of lowest income consumes a total of 447.1 kilos of bread per family per year, so that this superiority would be restricted to only Lentils and Dried beans. In the case of the other income strata, the situation is better balanced, although, considering all the goods together, in no case do they manage to be on the same level as the consumption of the highest income stratum, much less to rise above it.

Table 2

Cereals and legumes. Quantity consumed annually by the families of each level of income. (In kilos)

Income strata (sueldos vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
1. Rice	52.1	65.0	62.1	69.0	68.9	58.2
2. Wheat (its derivatives)						
- Unbleached flour	25.9	35.0	42.9	30.6	63.5	33.1
- Cake flour	0.15	1.5	3.3	2.6	9.3	1.6
- Pastas (package)	96.0	117.2	112.1	100.7	121.2	105.1
- Common bread	232.7	271.3	181.5	133.2	112.3	224.7
- Special bread	214.4	307.9	352.5	393.5	478.8	278.2
3. Chickpeas	1.24	2.25	1.89	1.19	2.26	1.64
4. Lentils	4.8	5.6	4.0	3.2	4.5	4.9
5. Dried beans	26.5	30.1	21.8	17.6	24.2	26.6

In fact, if all the headings are changed in terms of calories and proteins, one observes that the level of consumption of cereals and legumes reached by the highest income stratum provides it with 1,280.8 daily calories per person and 32.55 grams of protein, while the remaining income strata, that of 2-4 sueldos vitales, is the one that reaches the highest record with 31.16 grams of protein per person per day, and 1,199.3 calories (see Tables 3 and 4).

Table 3

Cereals and legumes. Calories consumed per person. (Calories per day)

Income strata (sueldos vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
1. Rice	100.5	125.2	119.6	133.1	132.7	112.1
2. Wheat						
- Unbleached flour	47.5	64.1	78.6	56.0	116.3	60.6
- Cake flour	0.3	2.7	6.1	4.8	16.9	3.0
- Pastas	86.6	105.7	101.1	90.9	109.4	94.8
- Common bread	333.6	388.9	260.2	191.0	160.9	322.1
- Special bread	307.3	441.4	505.3	563.8	686.5	398.8
3. Chickpeas	2.2	4.1	3.4	2.1	4.1	3.0
4. Lentils	9.9	11.5	8.3	6.6	9.3	10.1
5. Dried beans	49.0	55.7	40.3	82.4	44.7	49.1
	936.9	1199.3	1122.9	1080.7	1280.8	1053.6

Table 4

Cereals and legumes. Protein consumed per person. (Grams of protein per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
1. Rice	1.79	2.23	2.13	2.37	2.36	1.99
2. Wheat						
- Unbleached flour	1.11	1.50	1.84	1.31	2.72	1.42
- Cake flour	0.01	0.06	0.14	0.11	0.39	0.07
- Pastas	2.62	3.20	3.07	2.76	3.32	2.90
- Common bread	8.00	9.32	6.24	4.58	3.86	7.72
- Special bread	7.37	10.58	12.11	13.50	16.40	9.60
4. Chickpeas	0.12	0.22	0.18	0.11	0.22	0.16
5. Lentils	0.62	0.72	0.51	0.41	0.57	0.63
6. Dried beans	2.93	3.33	2.41	1.94	2.70	2.90
	24.57	31.16	28.63	27.09	32.55	27.39

The facts shown above make clear that there is still a gap in consumption to be filled, which would obviously improve the nutritional situation of the families of lowest disposable income in particular.

Naturally this is not a simple task, since if one wished to equal the level of consumption of bread of the highest income stratum, it would signify an increase of 144 kilos per family per year in the lowest stratum alone, which would represent a total demand and supply of 150,000 tons of bread, that is, it would require an increase of more than 175,000 metric tons in the supply of wheat.

Meats, Fish and Seafood

The differences in consumption of the different income strata are most disproportionate in this group of goods, since none of the income strata reaches a level near that achieved by the highest stratum. The only exception can be seen in the consumption of fat products, where the levels reached rise far above that of the highest stratum. This product, of slight protein value, is nevertheless the one which together with soup meat and chuck, provides the lowest income stratum with the greatest number of calories within this group of foods. (See Table 5.)

Table 5.

Meats, Fish and Seafood. Proportion of family consumption in relation to the highest income stratum. (In percentages)

Income strata (sueldos vitales)	0-2	2-4	4-6	6-8	8 & more
6. Beef					
- Boneless meat	13	24	43	73	100
- Stew meat	73	115	106	106	100
- Soup bone and shank	14	13	28	33	100
- Lard	221	201	361	93	100
7. Lamb					
- Stew meat	82	104	86	61	100
- Chops	9	13	43	48	100
- Sirloin	28	38	46	60	100
8. Pork					
- Stew meat	44	32	68	54	100
- Chops	12	19	40	95	100
- Rib roast	7	24	55	41	100
9. Poultry (chicken)	18	39	58	72	100
10. Fish					
- Conger eel	-	6	21	21	100
- Hake, cured and dried fish	50	55	51	49	100
11. Shellfish					
- Clams	11	17	15	42	100
- Mussels	12	30	30	74	100
- Abalone	1	3	4	43	100

The differences registered under more specific headings, such as in the consumption of fillet, loin², chicken, and abalone, are very large. This

²These headings are grouped under the item "Boneless meat."

only goes to show the character of the marketing system and its relation to the distribution of disposable income, since it is precisely under these headings that the relation to prices is the highest.

Table 6

Meats, Fish and Seafood. Annual consumption per family in each income level. (Kilos per year)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
6. Beef (kg)						
- Boneless meat	24.7	45.5	31.6	147.3	190.3	52.9
- Stew meat	19.2	30.3	23.0	27.9	26.3	23.6
- Soup bone & shank	4.8	4.5	9.5	11.5	34.5	8.0
- Lard	1.7	1.5	2.7	0.7	0.8	1.6
7. Lamb (kg)						
- Stew meat	3.4	4.4	3.6	2.6	4.2	3.7
- Chops	0.4	0.8	1.9	2.1	4.3	1.0
- Sirloin	1.1	1.5	1.9	2.4	4.0	1.6
8. Pork (kg)						
- Stew meat	0.9	0.6	1.4	1.1	2.0	1.0
- Chops	0.7	1.2	2.4	5.7	6.0	1.6
- Rib roast	0.2	0.7	1.7	1.3	3.1	0.8
9. Poultry (chicken) (kg)	13.3	29.2	43.7	53.5	74.8	26.5
10. Fish (kg)						
- Conger eel	-	0.9	3.0	2.9	14.0	1.1
- Hake, cured & dried fish	14.9	16.5	15.3	14.6	29.7	15.0
11. Shellfish (kg)						
- Clams	3.4	5.1	4.6	12.7	30.3	5.0
- Mussels	1.5	3.7	3.7	9.0	12.3	3.4
- Abalone (ea.)	0.2	1.0	1.2	12.7	29.4	1.9

As we can see in Tables 7 and 3, respectively, the contribution of calories and protein is not so relevant as in the previous case. Naturally we considered consumption as a whole and did not measure the contribution, especially in protein, of each one of the products individually, where the analysis would be limited to the specific quality of each heading. What we are interested in studying in this case is the nutritive balance in terms of what the population consumes, as a result of its disposable income, its knowledge of nutrition, and supply.

Table 7

Meats, Fish and Seafood. Consumption of calories per person.
(Calories per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
6. Beef	29.7	45.5	73.3	102.8	138.9	49.2
7. Lamb	3.7	4.9	5.5	5.1	9.3	4.7
8. Pork	1.3	1.9	4.1	5.4	8.1	2.4
9. Chicken	3.8	8.4	12.6	15.5	21.6	7.7
10. Fish	4.4	5.0	5.4	5.0	12.0	4.6
11. Shellfish	0.7	1.4	1.3	3.9	7.7	1.3
	43.6	67.1	102.2	137.7	197.7	69.9

Table 8

Meats, Fish and Seafood. Consumption of proteins per person.
(Grams of protein per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
6. Beef	3.63	6.23	9.87	15.86	21.49	6.80
7. Lamb	0.24	0.33	0.37	0.38	0.69	0.33
8. Pork	0.07	0.08	0.19	0.31	0.39	0.13
9. Chicken	0.77	1.69	2.53	3.10	4.33	1.54
10. Fish	0.96	1.10	1.15	1.09	2.68	1.03
11. Shellfish	0.15	0.27	0.26	0.77	1.57	0.28
	5.82	9.70	14.37	21.51	31.15	10.11

While the consumption of cereals and legumes contributes 936.9 calories and 24.57 grams of protein daily per person to the lowest income stratum, the consumption of meats scarcely adds 43.6 calories and 5.8 grams of protein. Clearly it doesn't make much sense to compare the caloric contribution made by each one of these groups of foods, but it is important to analyze the protein contribution of the two. That is to say, in economic terms it is interesting to analyze the nutritive contribution of both groups, since, as we saw in the case of wheat, an appreciable quantity that would have to be produced or imported was required to equalize the consumption of bread, and the distance in consumption and, as a result, in the nutritional level between the two extremes is not so appreciable as it is in the case of meat. Thus while in cereals and legumes the proteins consumed by the lowest income stratum amount to 24.57 grams, as opposed to 32.55 for the highest stratum, and 27.39 grams for the weighted average, in the consumption of Meats, Fish and Seafood, the proteins consumed in the lowest income stratum amount to 5.82 grams, as opposed to 31.11 grams for the highest stratum and 10.08 for the weighted average.

Actually, the highest income stratum consumes meat, fish, and seafoods at a level that attains almost the same protein contribution as the cereals, but in order to do so it must reach levels that are comparatively very high. In fact it consumes 190.3 kilos of beef, 74.8 kg of chicken, and 72.0 kg of seafood per family, while the lowest income stratum consumes, under the same headings, 24.7 kg, 13.3 kg, and 5.1 kg, respectively. This distance is even more noticeable and aggravates the problem if one considers that the weighted average under said headings scarcely reaches 52.9 kg under beef, 26.5 kg under chicken, and 10.3 kg under seafoods. With this point we wish to demonstrate that, if the attempt were made to attain the same level of consumption of the highest income stratum, especially of beef and chicken, the effort would be much greater still and of higher cost than in the case of wheat. Just to equalize the consumption of beef between the highest and lowest income strata it would be necessary to increase the supply by more than 170,000 tons, that is to say, the present total supply would have to be almost doubled. In the event that it was desired to equalize the consumption of all the inhabitants of the country at the level of the highest income stratum, it would be necessary to increase the total supply by 235,000 tons, which at a glance would be difficult and very costly.

The caloric and protein contribution of beef taken as a whole is noteworthy, as is the reduced contribution of pork.

The principal reason is that, for one thing, the consumption of beef is of first priority, and secondly, some of the headings under beef are those that contribute most in terms of calories and protein.

It is interesting to observe the different incidence of the different cuts or types of meat in the various levels of income. Thus, in the case of calories, the headings that occur most often in the lowest income stratum are beef stew, lard, chuck, and chicken. On the other hand, in the highest stratum the greatest contribution is made by roast beef, rib roast, and loin. Chuck meat and chicken also weigh considerably but at a more reduced level than the above. In the case of the weighted average, the headings that contribute the most calories by virtue of the levels of consumption reached are roast meat, beef stew, chuck meat, and chicken. Other important headings are rib roast, lard, loin, and the fillet of hake.

In the case of protein, with the exception of beef lard, all the other products are closely related to the above.

As regards the low level of consumption observed in the case of pork, it was considered that this food is consumed primarily outside the home. Naturally, beef, chicken, and fish are also consumed, but it seems that pork is the product that is eaten most often outside the home. Otherwise one could not explain the total available supply which exceeds by too much the overall consumption projected through the results of the survey, as will be seen in another chapter. There is also consumption of beef outside the home, especially of loin and fillet. The consumption of these items, which corresponds to levels of higher income, has been estimated with the object of balancing the demand with the total available supply.

In general, the figures on available supply are not adequate, due to the fact that it is impossible to know about the clandestine butchering and other forms through which commercialization and private consumption are carried out. Thus it has been very difficult to confront the study of the consumption of meat, especially when taking into account each heading or cut of meat individually.

In the case of lamb, the situation is a little more complicated, since a very high proportion of the available supply is consumed in the province of Magallanes. Facts on this situation do not exist except at the level of estimates, for which reason the effort to balance supply and demand was problematic, since if one tried to derive this balance through the results of the survey, one would find more than 50 percent of the consumption without possible explanation.

The figures on chicken, fish, and seafood are more difficult to estimate. Nevertheless, we believe that the figures on consumption are reasonable since the projection obtained through the figures of the survey fits within possible limits.

Dairy Products, Oils and Fat Products, Eggs.

In this group of goods it is not so interesting to discuss the differences of consumption among the income strata. There exists an escalating consumption in proportion to the rise in disposable income and the spending carried out by the different strata. The important thing is to analyze the level of consumption in itself, especially the case of milk, since it is one of the main products of this select group, and besides, it is a basic nutritional good. (See Tables 9 and 10.)

Table 9

Dairy Products, Oils and Fat Products, Eggs. Proportion of family consumption in relation to the highest income stratum. (In percentages)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more
12. Milk					
- Liquid	22	38	52	70	100
- Powdered	29	42	57	78	100
- Condensed	27	48	65	81	100
13. Butter	42	67	76	82	100
14. Margarine	2	40	72	49	100
15. Eggs	53	55	86	112	100
16. Cooking oil	49	65	76	87	100

Table 10

Dairy Products, Oils and Fat Products, Eggs. Annual consumption per family in each income stratum. (In units)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
12. Milk						
- Liquid (liters)	106.5	182.4	247.9	332.8	478.3	177.1
- Powdered (jar)	11.4	16.5	22.3	30.3	39.0	16.6
- Condensed (jar)	10.7	18.9	25.2	31.8	39.0	17.1
13. Butter (kg)	8.5	13.6	15.5	16.7	20.2	11.7
14. Margarine (kg)	0.01	0.19	0.34	0.23	0.47	0.13
15. Eggs (ea.)	333.8	344.6	539.6	704.8	631.0	390.4
16. Cooking oil (liters)	43.8	58.0	67.7	77.7	88.9	54.3

The level reached by the family group of lowest income is, in reality, extremely modest, since it reaches a total consumption of milk equal to 53.7 daily calories per person, which would represent less than a fifth of what the "half liter of milk" contributes to each Chilean child in the program that is so named. On the other hand, a half liter of milk per person, and not per child, would almost be consumed by the highest income stratum, since it reaches a level of 220.8 daily calories per person in the consumption of milk. Therefore, it would really be possible that the children of that stratum are actually consuming the aforesaid half liter of milk.

Also worthy of attention is the quite reduced consumption of margarine. The explanation seems to be that in the years of the survey, the consumption of this product still had not become generalized, therefore the result has very relative validity in the projections.

The consumption of cooking oil detected in the poll seems to be over-estimated, for which reason it was necessary to fall back on the known facts of supply. In this case if we should have an apparent consumption, we will at least respect the proportion that existed originally in the survey. The relation between the consumption of this product and the other goods made the above hypothesis appear more consistent.

Table 11

Dairy Products, Oils and Fat Products, Eggs. Consumption of calories per person. (Calories per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
12. Milk	53.7	38.9	120.3	160.6	220.8	86.1
13. Butter	33.5	53.6	60.8	65.6	79.7	45.9
14. Margarine	0.1	0.7	1.2	0.9	1.8	0.5
15. Eggs	13.4	13.8	21.7	28.4	25.4	15.7
16. Cooking oil	207.9	275.2	321.1	368.9	422.1	257.9
	308.6	432.2	525.1	624.4	749.8	424.1

Table 12

Dairy Products, Oils and Fat Products, Eggs. Consumption of protein per person. (Grams of protein per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
12. Milk	2.94	4.79	6.50	8.72	12.05	4.68
13. Butter	0.02	0.04	0.05	0.05	0.06	0.03
14. Margarine	---	---	---	---	---	---
15. Eggs	1.25	1.30	2.02	2.65	2.37	1.46
16. Cooking oil	---	---	---	---	---	---
	4.21	6.13	8.57	11.42	14.48	6.17

Other Goods.

In this group of goods, the most important products are onions, potatoes, and sugar.

The consumption of onions is of a seasonal nature, since, even though they are eaten all year, the level of consumption rises considerably during the summer period, especially in the lower classes. It is for this reason that its consumption exceeds by a fair amount that registered in the highest income stratum. In general, the level of consumption is high. Its importance from a nutritional point of view is very slight. Its consumption is justified for reasons of custom and culinary tradition.

In the case of the potato, its consumption is also seasonal, although it is eaten during the entire year. However, there is also a very important regional aspect, since the potato is eaten in various forms in the producing provinces in the southern part of the country. As we have already said, the results in the present case are from Greater Santiago, for which reason this regional peculiarity has not been taken into account. The results that have been processed indicate the existence of a very even consumption, since it also constitutes a popular food.

The consumption of sugar that is shown in Table 14 does not include that of an industrial nature, it is valid to say that that kind of consumption is presented through preserves, marmalades, and other types of products. We refer exclusively to direct consumption in Table 14.

In general the consumption of sugar is fairly even. There are no marked differences between the extremes. Perhaps the level reached even by the lowest stratum is slightly elevated, since it would give a consumption of 2.08 kilos per week per family. In the case of the highest income stratum, this consumption would be elevated to 2.77 kilos per week.

Nevertheless, it is one of the headings that shows greatest compatibility in relation to the available supply, which in the Chilean case is of a very high level, especially if one adds to it the consumption of sugar of an industrial nature.

Table 13

Various Products. Proportion of family consumption in relation to the highest income stratum. (In percentages)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more
17. Onions	164	157	142	114	100
18. Potatoes	78	88	102	88	100
19. Sugar	75	95	98	90	100
20. Bananas	24	41	51	86	100
21. Coffee	27	52	72	85	100
22. Tomato sauce	57	77	71	65	100
23. Tea					
- Bags	69	82	93	84	100
- Loose	66	78	88	79	100
24. Salt	110	129	129	115	100
25. Beer					
- Ale	101	115	116	135	100
- Beer	37	68	42	70	100

Table 14

Various Products. Annual consumption per family in each income stratum

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
17. Onions (kg)	68.0	65.0	59.0	47.5	41.5	63.6
18. Potatoes (kg)	242.0	273.0	313.0	273.0	311.0	263.1
19. Sugar (kg)	99.9	126.3	130.6	119.7	133.2	112.7
20. Bananas (kg)	18.1	30.9	37.7	64.1	74.6	29.3
21. Coffee (jar)	6.9	13.1	18.3	21.5	25.4	11.5
22. Tomato sauce (jar)	45.0	61.2	56.6	51.4	79.5	53.3
23. Tea						
- Bags (box)	35.2	41.9	47.3	42.6	50.9	39.5
- Loose (kg)	7.7	9.2	10.4	9.4	11.8	8.7
24. Salt (package)	23.4	27.4	27.3	24.3	21.2	24.5
25. Beer						
- Ale (bottles)	7.1	8.2	8.2	9.6	7.1	7.6
- Beer (bottles)	11.9	21.9	13.5	22.8	32.4	16.8

Table 15

Various Products. Consumption of calories per person. (Calories per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
<u>Goods</u>						
17. Onions	8.2	7.8	7.1	5.7	4.9	7.6
18. Potatoes	69.6	78.5	91.5	73.5	89.5	75.2
19. Sugar	206.1	260.4	269.3	246.8	274.6	218.2
20. Bananas	5.8	9.9	12.1	20.5	23.9	7.2
	289.7	356.6	380.0	351.5	392.9	308.2

Table 16

Various Products. Consumption of proteins per person. (Grams of protein per day)

Income strata (s.vitales)	0-2	2-4	4-6	6-8	8 & more	Weighted Average
<u>Goods</u>						
17. Onions	0.25	0.24	0.22	0.17	0.15	0.23
18. Potatoes	3.24	3.66	4.26	3.66	4.17	3.53
19. Sugar	--	--	--	--	--	--
20. Bananas	0.07	0.10	0.09	0.08	0.12	0.08
	3.56	4.00	4.57	3.91	4.44	3.84

2) Consumption by income strata expressed in calories and proteins. In spite of the fact that this aspect has been analyzed previously, we consider it useful to make a synthesized presentation of consumption in this perspective.

As one can observe in the following tables, we have presented the contribution in calories and proteins of the different groups of products consumed by each income stratum.

In all cases the caloric contribution of the cereals and legumes is fundamental. Nevertheless, its importance decreases in proportion as the families rely on a larger income. These products are then replaced by the consumption of meats, fish, and seafoods, and of dairy products, oils, fat products, and eggs. In spite of this, however, it does not cease to be a significant proportion, since all the products indicated replace only about 10 percent of the caloric contribution of the cereals and legumes. Thus, while in the lowest income stratum these reach 58.3 percent, in the case of the family group of more than 8 sueldos vitales, the caloric contribution of the cereals and legumes represents 48.4 percent of the total (see Table 17).

Table 17

Consumption of calories per person. (Calories per day)

	0-2		2-4		4-6		6-8		8 & more		Weighted Average	
	c/d	%	c/d	%	c/d	%	c/d	%	c/d	%	c/d	%
Cereals, Legumes	936.9	58.8	1199.3	57.8	1122.9	52.2	1080.7	48.8	1280.8	48.4	1053.6	56.3
Meats, Fish, Sea food	43.6	2.7	67.1	3.2	102.2	4.7	137.7	6.2	197.7	7.5	69.9	3.7
Dairy Products, Oils & Fat Prods., Eggs	308.6	19.4	432.2	20.8	825.1	24.4	624.4	28.2	749.8	28.3	424.1	22.6
Onions, Potatoes, Sugar, Bananas	289.7	18.2	356.6	17.2	380.0	17.7	351.5	15.9	392.9	14.8	308.2	16.5
Various Products	14.2	0.9	18.8	1.0	18.8	1.0	19.7	0.9	23.8	1.0	15.2	0.9
Total	1593.0	100.0	2074.0	100.0	2149.0	100.0	2214.0	100.0	2645.0	100.0	1871.0	100.0

Table 18

Consumption of proteins per person. (Grams of protein per day)

	0-2		2-4		4-6		6-8		8 & more		Weighted Average	
	p/d	%	p/d	%	p/d	%	p/d	%	p/d	%	p/d	%
Cereals, Legumes	24.57	63.6	31.16	60.3	28.63	50.3	27.09	41.7	32.55	38.8	27.39	57.1
Meats, Fish, Sea food	5.82	15.1	9.70	18.8	14.37	25.3	21.51	33.1	31.15	37.2	10.11	21.1
Dairy Products, Oils & Fat Prods., Eggs	4.21	10.9	6.13	11.9	8.57	15.1	11.42	17.6	14.48	17.3	6.17	12.9
Onions, Potatoes, Sugar, Bananas	3.56	9.2	4.00	7.7	4.57	8.0	3.91	6.0	4.44	5.3	3.84	8.0
Various Products	0.44	1.1	0.71	1.5	0.76	1.3	0.97	1.5	1.18	1.5	0.49	1.1
Total	38.60	100.0	51.70	100.0	56.90	100.0	64.90	100.0	83.80	100.0	48.00	100.0

The group of products whose contribution is relatively greater in proportion as the level of disposable income is higher is made up of the dairy products, oils and fat products, and eggs. The importance of the composition and diversification of consumption, as well as the level reached in each case, is reflected much more from the point of view of protein. Here the jumps are much more notable than in the case of calories.

As we can see in Table 18, while the contribution of proteins within the total granted through the consumption of cereals and legumes descends from 63.6 percent (lowest income stratum) to 38.8 percent (highest income stratum), the contribution of proteins for the consumption of meat, fish, and seafoods, ascends from 15.1 percent (lowest income stratum) to 37.2 percent (highest income stratum).

Dairy products and the consumption of eggs also contribute proteins in a significant way, and represent an important segment in proportion as their level of consumption rises. While the level of consumption reached by the lowest income stratum grants proteins that represent only 10.9 percent of the total, in the other extreme this percentage rises to 17.3 percent.

In short, for the case of families with high incomes, one can maintain that the tendency of diversification in their consumption permitted the replacement of the proteins provided by cereals and legumes by those of meat, fish, seafood, milk, and eggs.

The Chilean society as a whole has not been able to do the same as the family group of higher income, since on the average the greatest protein contribution continues to be made by the cereals and legumes (57.1 percent with meat, fish, and seafoods in second place (21.1 percent), and milk and eggs following them with 12.9 percent. Of the rest of the products the potato is the one that contributes the most.

In conclusion, it remains for us to comment briefly on the level attained. However, one has to take into account two principal limitations. In the first place, the calculated levels do not include all the nutritional goods, basically lacking are the fruits and vegetables. This aspect could be resolved by estimating that the inclusions of these groups would increase the total indicated by from 6 percent to 10 percent, so that the general conclusions would not be affected. The second limitation is more serious, since it is related to the standards of reference with which one would have to compare the nutritional levels attained. In this respect it is advisable to make clear that it is very difficult to have a single figure of reference, since the recommendation on the consumption of calories and proteins will depend on factors like age, sex, and type of activity developed. Hence the difficulty in having a general average which might serve as a standard of reference. However, in order to overcome this pitfall we decided to use a collective average (taking into account the variables indicated) that was calculated in order to analyze the availability of calories and proteins in

Chile. (Production plus imports.) The average in calories recommended by the National Health Service is 2,398 daily calories per person, and 46 grams of daily protein per person.³

Without going into a specialized treatment of the subject, it is possible to point out that in the first income stratum the greatest deficiency is on the side of the consumption of calories and not so much in that of proteins. In like manner, in the next-highest stratum (from 2 to 4 sueldos vitales) the same phenomenon is repeated, since in this case the level of consumption of proteins is adequate. This phenomenon is also apparent in the income strata of 4 to 6 and 6 to 8 sueldos vitales. However, we may suppose that with the inclusion of the consumption of fruits and vegetables these income strata easily attain the average level recommended, which we could not maintain in the previous cases.

The importance of this phenomenon is that it includes 80 percent of the Chilean population, since that is the proportion of inhabitants in Chile that earn up to 4 sueldos vitales per month.

3) Spending on the consumption of essential foods 1968-69. The Poll of Family Budgets, source of our information, presents the spending carried out on the average by the families grouped in strata according to their income.

In the present case we have taken the spending deduced directly from the survey, and it includes the period between September of 1968 and August of 1969. Not all the spending on foodstuffs has been studied, but exclusively that limited to essential goods. Consequently we did not consider spending on greens and fruits, preserves, etc., various dairy products, soft drinks and alcoholic beverages, consumption outside the home, separate courses, and miscellaneous. The total spending on food recorded by the survey is shown in the following table:

Table 19

Income strata	Spending on food (in Escudos of 1968-69)			Available Income ¹ (in Escudos of 1968-69)		Total Spending (in Escudos of 1968-69)	
	Total	Essential goods	%	Totals	Total spending on food/Avail. Income (%)	Total	Total spending on food/Total spend. (%)
0-2	4,369	3,080	70.5	6,456	67.7	10,563	41.4
2-4	6,113	4,311	70.5	14,865	41.1	19,248	31.8
4-6	7,787	5,274	67.7	24,126	32.3	27,220	28.6
6-8	9,605	6,379	66.4	36,182	26.5	41,217	23.3
8 & +	12,224	8,342	68.2	112,879	10.8	82,792	14.8
Weighted Average	5,946	4,127	69.4	20,401	29.1	21,448	27.7

¹ Available income and total consumption during the survey period.

³ Recommended levels: 2,398 calories daily and 46 grams (UPN=60) of protein daily. Source: I. Barja, M. Somorza, C. Puigredón, B. Avila, M.A. Tagle. "Disponibilidad de alimentos en Chile, quinquenio 1965-1968," Mimeo., National Health Service, Santiago, 1971.

As we explain in the chapter that deals with the distribution of income, the families of lower incomes have had to resort to indebtedness in order to cover as many of their needs as possible. This had to be so, since otherwise it would not be possible to pay, in the case of the Chilean economy, 67.7 percent of the available income for food. We take a firm stand on the Chilean situation since it is a society incorporated on fairly diversified guidelines of consumption, so that the population is forced to live together within a certain level or standard of living.

In the circumstances described, the total spending on foodstuffs in relation to the total expenditure diminishes to a certain degree in relation to the magnitude of indebtedness. In the lowest income stratum, while the relation to available income was 67.7 percent, this percentage diminishes to 41.4 percent when it is related to the total expenditure. The difference in the proportion of spending on foods in relation to available income and to total expenditure is very important, since, in the case of the highest income stratum, spending on food represents 14.8 percent of this total expenditure and only 10.8 percent of their available income, which indicates their purchasing power, even on a speculative level.

This purchasing power and the existing difference in levels are clearly reflected when the spending on essential foodstuffs is expressed in terms of sueldos vitales.

For this purpose we have taken into account the legal minimum wage from the year 1968 and that from 1969, formulating a weighted average between the respective proportions.⁴

Table 20

Income strata	Average spending per family (Expressed in sueldos vitales)	(Essential foods) (Expressed in Escudos)
0-2 SV	0.58	3,080.27
2-4 SV	0.81	4,310.58
4-6 SV	0.99	5,273.65
6-8 SV	1.20	6,378.86
8 & more SV	1.57	8,541.84
Weighted Average	0.78	4,127.01

There is a great disparity in the spending carried out by families of different levels of income. The relationship between the amount spent by the lowest income stratum and that spent by the highest stratum on the consumption of essential food products is a proportion of approximately 1 to 3. Also, the average amount spent by all the families equals half the amount corresponding to the highest income stratum and is in turn 34 percent larger in relation to the families that make up the stratum of 0-2 sueldos vitales, which represent 54 percent of the total population of the country.

⁴3,080.37 Escudos divided by the 12 months of the survey equals 256.68 E9 monthly. The living wage (SV) in 1968 was 373.24 E9; and in 1969, 477.50 E9. The monthly sum would represent 0.54 and 0.69 respectively. However, if the variable time is introduced as a weighing factor, an average of 0.58 SV will be obtained.

In other words, if there had been an equal distribution of foodstuffs, 54 percent of the population would have consumed 34 percent more, while the higher income stratum, which represents 8.9 percent of the population, would have seen its consumption of essential foods reduced by 50 percent.

However, even then it seems unlikely that the poorest social groups would have been able to spend economically in the marketplace the additional amount that, hypothetically here, it would have been possible to distribute to them with the equal distribution of goods, since even with a redistribution of income like that experienced in 1971 it was not possible to achieve the weighted average obtained during 1968-69. As we saw, the weighted average expressed in calories and grams of protein reflected a total of 1,871 calories and 48.0 grams of protein daily per person. This level could not be reached by the lowest income stratum as a result of the redistribution of income, as we shall see in the next chapter. In spite of the increase that it had, that stratum reached more than 1,747 calories daily and 42.80 grams of protein daily per person. In other words, the increase in their level of available income and in their expenditure was not sufficient to compensate even for the gap that separated them from the average that had been reached. In that case and referring again to the year of the survey, the average expenditure that an equal distribution would have signified for the lowest income stratum is reflected in the following figures:

Table 21

Relationship between the average spending on food and the available income and the total expenditure of the lowest income stratum.
(In Escudos of 1968-69)

Total	Average spending on	Available in-			Total expen-		
(a)	essential foods	come of the	(a)/(c)	(b)/(c)	diture of the	(a)/(d)	(b)/(d)
	(b)	lowest income			lowest income		
		stratum (c)			stratum (d)		
5,946	4,127	6,456	92.1%	63.9%	10,563	56.3%	39.1%

This would mean that, in order to reach the national average, even influenced as it is by their own relative weight, since it is a weighted average, the families of the lowest income stratum would have to use 92.1 percent of their income for feeding themselves or, on the other hand, go into debt by 61.1 percent (which is what happened that year) in order to use 56.3 percent of their total expenditure for that purpose. Naturally the percentages diminish in the case of the essential goods, to 63.9 percent of the available income and 39.1 percent of the total expenditure. Apparently these proportions are not viable except at the expense of other necessities that are indispensable. At least this is indicated by the fact that when their incomes and levels of expenditures were increased, while they did improve their nutritional level, the income obtained was directed towards other needs.

The following table shows that distribution of income and of consumption prevailing in the period of the survey and its relation to the consumption of essential foods.

Table 22

Relation between the spending on essential foods and the available income and the total expenditure. (In Escudos of 1968-69)

Income strata	Spending on essential foods (A)	Average available income per family		Average total expenditure per family	
		(B)	A/B	(C)	A/C%
0-2 SV	3,030	6,456	48	10,563	29
2-4 SV	4,311	14,865	29	19,248	22
4-6 SV	5,274	24,126	22	27,220	19
6-8 SV	6,379	36,182	18	41,217	15
8 & +SV	8,342	112,879	7	82,792	10
Weighted Average	4,127	20,401	20	21,448	19

As we can see, the spending on essential foods by the families in the lowest income stratum, in spite of being so low, already represents almost 50 percent of the income of the families and approximately 30 percent of their total expenditure.

Another of the interesting aspects to observe is related to the pattern of spending. As the following table establishes with respect to the flours and starches, greens and fruits, sugar and other kinds of goods that were not classified, their relative importance diminished as the income of the families increases, even though the expenditure may be greater in absolute terms. The opposite occurs in the case of spending on meats, poultry, and fish, whose relative importance rises considerably in proportion as the family income increases, coming to signify 44 percent of the spending on essential foods, in the group of families whose income is larger than 8 sueldos vitales.

With regard to the pattern of average family spending, it is very similar to the pattern of spending of the families of 2 to 4 sueldos vitales, with the exception of the two primary groups of foods, which are flours and starches, and meats, poultry, and fish. In these cases the average would be situated between the pattern of consumption of the strata of 2 to 4 and 4 to 6 sueldos vitales.

The variation in the pattern of consumption detected in the survey apparently remained constant during 1970. At least there have been no changes in the distribution of income, so we assume that there would be no important variations.

Therefore, the only explanation for the variation in the spending of the families in this period is that it is due to the increase in the prices of the essential goods consumed.

The average family spending by income strata on essential food products in the period of the survey and the consumption valued at the average prices of 1970 are as follows:

Table 23

Income strata	Period of the survey	Average 1970	Variation %
0-2 SV	3,080	4,560	48.0
2-4 SV	4,311	6,382	48.0
4-6 SV	5,274	7,844	48.7
6-8 SV	6,379	9,328	46.2
8 & more SV	8,342	12,293	47.4
Weighted Average	4,127	6,093	47.6

Price variations detected by the Consumer Price Index in that period, 45.4 percent.

Variations under the heading of Foods on the Consumer Price Index in that period, 49.8 percent.

The variations in spending on Essential Food Products incurred by the families of different income strata have been fairly even, and also very similar to the price variations detected by the Consumer Price Index, considering the General Index as well as that referring only to the heading of Foods.

B. DISTRIBUTION OF INCOME AND TOTAL DISPOSABLE FAMILY SPENDING 1969-1970.

Although it is not necessary to develop this theme in particular, it is worthwhile to describe, even superficially, the outstanding characteristics of the distribution of income in Chile.

The importance of considering this variable not only becomes obvious when it is related to general consumption, but also involves a content that explains very well the essential characteristics of the economic rationale which we are presently trying to modify; that is, it constitutes a backdrop that clearly indicates the concentration of wealth, the basis of use and the destination of the economic surpluses and of the natural resources, the purchasing power exercised by the different human conglomerates of the country, the basis of their expectations and limitations on consumption for the satisfaction of their needs.

During the years 1969 and 1970 the distribution of income has not varied, as we gather from the following table, which demonstrates a concentration of 45.5 percent of the income in the hands of only 7.1 percent of the Chilean families. The addition of the families of more than 8 sueldos vitales would indicate a situation in which 49.4 percent of the income is controlled by 8.9 percent of the total population, as opposed to the 54.3 percent that controls only 17.2 percent of the income.

Table 24

Distribution of total available income in 1969-1970. (In millions of Escudos, 1970)

Span of Average Family Income (SV)	1969				1970			
	Number of homes (thousands) (%)		Total Income (millions)(%)		Number of homes (thousands) (%)		Total Income (millions)(%)	
0-2	1,023	54.3	10,108	17.2	1,043	54.3	10,500	17.2
2-4	483	25.7	10,990	13.7	492	25.7	11,416	18.7
4-6	156	8.3	5,759	9.8	159	8.3	5,983	9.8
6-8	52	2.8	2,879	4.9	53	2.8	2,991	4.9
8-10	34	1.8	2,292	3.9	35	1.8	2,381	3.9
10 & more	134	7.1	26,741	45.5	136	7.1	27,776	45.5
	1,882	100.0	58,769	100.0	1,918	100.0	61,047	100.0

Table 25

Average Available Family Income in 1969-1970. (In Escudos of 1970)

Span of Average Family Income (SV)	Number of homes		1969 Average Income per Family		1970 Average Income per Family		Variation Percentage %
	1969	1970	Escudos	Equival. of 1970 in SV	Escudos of 1970	Equival. in SV	
0-2	1,023	1,043	9,881	1.33	10,067	1.36	1.9
2-4	483	492	22,754	3.07	23,203	3.13	1.9
4-6	156	159	36,917	4.98	37,629	5.08	1.9
6-8	52	53	55,365	7.47	56,434	7.62	1.9
8-10	34	35	67,412	9.10	68,029	9.18	1.9
10 & more	134	136	199,560	26.93	204,235	27.56	1.9
	1,882	1,918	*31,227	4.21	*31,828	4.29	1.9

*Weighted Average

The rest, which is where the bulk of the middle class is concentrated, represents 36.3 percent of the families controlling a similar proportion of the income (33.4 percent).

The proportions indicated become more concrete when they are expressed in terms of average family income or its equivalent in sueldos vitales. It has not been possible to get a good idea with respect to the dispersion of income that exists in each one of the strata, so that we have to make do with a simple average which at least gives us some idea of the situation. Naturally, in the case of the highest income stratum, because it is an open stratum, the average is the least indicative, since it shows the average incomes elevated only to secure levels. While they will not form a majority proportion, they do reach a level far above that indicated in the respective table. (See Table 25.)

In said table there are two elements that merit attention. In the first place, the difference that exists between levels of incomes; and secondly, the measure of increase between 1969 and 1970. As we can observe, this increase is constant in all the strata, which surely does not reflect the reality of the situation. The projection has started from the assumption that the variations in income have been influenced by the growth of the economic product and that there were no significant changes in the form or proportion in which the different social groups appropriated it.

The modest size of the increase in product and the evidence that in this period there were no specific policies of redistribution lead us to presuppose the validity of the above assumption. The important thing is to show that there have not been changes in the redistribution of the income, but that its level has in fact been slightly increased.

It is interesting to observe that 80 percent of the population (income strata 0 to 2 and 2 to 4) does not attain a level that even remotely approximates the average income of the Chilean society, which in turn is very far removed from the average reached by the families of higher income. Furthermore, the majority of the population reaches an average level of income that represents 33 percent of the general average and scarcely 5 percent of the highest average income.

The analysis of the preceding facts explains very well the reason why the lowest income stratum has such a high rate of indebtedness as 64.0 percent. However, in spite of that the families of this stratum cannot match their total level of expenditure, basically induced by the "demonstration effect" of the other groups, since they in turn are influenced by the families of high incomes for the same reason. Thus they do not reach even 50 percent of the average level of expenditure that is carried out in the Chilean society.

Indebtedness is, then, a common characteristic in almost all the family strata, with the exception of the families of the highest stratum, who have a margin of savings of 30.4 percent of their total available income. The general balance of this situation indicates that the total number of families has a rate of indebtedness of 4.7 percent in 1969 which rises to 4.9 percent in 1970.

Apparently this tendency towards consumption is basically influenced by the demonstration effect exercised by the high income strata through their standards of living, their apparel, and especially their consumption of luxuries. Otherwise we could not explain the reason why the medium strata should have to go into debt, since if it were a matter of nutritional necessities, as we saw in the preceding chapter, they would have sufficient margin to increase their spending on food, even in terms of their available income alone. This in turn explains the fact that the lowest strata of 0-2 and 2-4 sueldos vitales have a rate of indebtedness of 63.0 percent and 29.0 percent respectively.

Indebtedness has an explanation at the level of the national commercial system, since a mechanism was developed in the country that granted incentives to the consumer so that he could buy his goods on credit and on convenient terms.

As we can see in Table 27, the levels of consumption have risen in a similar way, since it is the same hypothesis that was used for the projection of income.

In spite of the fact that the relative position of the lowest income stratum improves, since the highest stratum does not use all its available income for consumption, one can continue to appreciate a very great difference between the levels of consumption reached by each one of these family groups, with the difference that the majority of the population that is in the lowest income stratum has incurred an important rate of indebtedness that is compromising for the future, without reaching an adequate level of consumption. Thus more than 50 percent of the families continue to consume a little more than 10 percent of the amount consumed by the families of higher income, and scarcely attain half the level of the national average. If we add to this group the other family group of 2 to 4 sueldos vitales, while their average consumption may be on the upper margin, 4.04 sueldos vitales, it is still very far removed from that of the remaining families of higher income (see Table 27).

Table 26

Total consumption by income strata in 1969-1970.
(In millions of Escudos, 1970)

Span of Average Family Income (SV)	1969		1970		1969	1970
	Consumption in millions	Total (%)	Consumption in millions	Total (%)	Savings & Indebtedness (-) (%) Savings Income	Savings & Indebtedness (-) (%) Savings Income
0-2	16,527	26.8	17,115	26.7	- 63.0	(-) 63.0
2-4	14,184	23.0	14,727	23.0	- 29.0	(-) 29.0
4-6	6,475	10.5	6,725	10.5	- 12.4	(-) 12.4
6-8	3,268	5.3	3,395	5.3	- 13.5	(-) 13.5
8-10	2,590	4.2	2,702	4.2	- 13.5	(-) 13.5
10 & more	18,623	30.2	19,367	30.3	+ 30.4	(+) 30.3
	61,667	100.0	64,031	100.0	- 4.7	(-) 4.9

Table 27

Total average family consumption in the years 1969-1970. (In Escudos of 1970)

Span of Family Income (SV)	Average Number of homes (thousands)		1969 Average Consumption per Family In Escudos 1970 Equival. in SV		1970 Average Consumption per Family In Escudos 1970 Equival. in SV		Variation Percentage (..)
	1969	1970					
0-2	1,023	1,043	16,155	2.18	16,409	2.21	1.9
2-4	483	492	29,366	3.96	29,932	4.04	1.9
4-6	156	159	41,506	5.60	42,295	5.71	1.9
6-8	52	53	62,846	8.43	64,052	8.65	1.9
8-10	34	35	76,176	10.28	77,213	10.42	1.9
10 & more	134	136	138,978	18.76	142,351	19.21	1.9
	1,882	1,913	*32,767	4.42	*33,388	4.51	1.9

*Weighted Average

CHAPTER TWO: METHODOLOGY FOR THE PROJECTION OF CONSUMPTION AND ANALYSIS OF THE TENDENCY TOWARDS CONSUMPTION

A. METHODOLOGY FOR THE PROJECTION.

Using as a basis the "Poll [survey] of Family Budgets," we proceeded to select the nutritional products that make up the most habitual Chilean diet.

The consumption of foods has been stratified in accordance with different levels of income, which were grouped in terms of the sueldos vitales that the families received. The stratification is the same as that used in the case of the distribution of income.

Since the survey records the spending carried out by each one of the families under the different nutritional headings, it was necessary to derive from that information the respective quantities consumed. For that purpose we took the prices effective in December of 1969, since it is shortly after that date that one can count on a more complete series of prices. Also, since the survey was carried out between September of 1968 and August of 1969, we assumed that the average variation in prices between the period of the survey and December of 1969 was 16.96 percent; therefore we deflated all the prices of December, 1969, by 1.1696, obtaining in this way the prices implicit in the survey.

The results obtained in qualitative terms really correspond to Greater Santiago, since the surveys that were used refer to this area. Hence the limitation of these results for carrying out their projection on a national level. However, on the basis of the results and of their consistency with the available supply for the years of the survey, we have been able to obtain a pattern of consumption that would reflect a tendency within which it would be possible to determine the consumption per family on a national level.

The pattern of consumption thus obtained has served as a basis for calculating the variations in consumption provoked by the redistribution of income in the year 1971.

Previously we started from the hypothesis that, since there were no changes in the distribution of income between 1969 and 1970, it would be possible to accept the idea that the pattern of consumption detected by the survey would remain constant until the last year mentioned. Since there is no series of facts on consumption by income strata that includes more than one period, in order to be able to observe the variations in consumption in terms of the changes in income, we decided to study the changes in spending for products, experienced in proportion as we passed through the different levels of total expenditure carried out by the family strata. That is, we calculated the inter-strata elasticities of spending, corresponding to a given pattern of consumption, which was that resulting from the survey.

Having calculated the different elasticities of spending, we calculated the variation in spending experienced by each income stratum between the years 1969 and 1971. We included the variation between 1969 and 1970 in order to take into account the influence of their small increase when it is considered within the total variation.

Therefore, the quantities demanded by each family stratum for 1971 were projected by using the following equations:

$$C_1 (SI) = C_0 (SI) \quad 1 + E (SI) \cdot \Delta G (I)$$

$$C_0 (SI) = \frac{\frac{G (SI + 1)}{G (SI)} - 1}{\frac{G (I + 1)}{G (I)} - 1}$$

where

C_1 is the projected consumption (1971)

C_0 is the consumption of the survey (1968/1969)

$C_1 (SI)$ is the quantity demanded per family of the product S in the stratum I corresponding to the year of the projection

$C_0 (SI)$ is the quantity demanded per family of the product S in the stratum I corresponding to the year of the survey

$E (SI)$ is the elasticity of spending for the product S between a certain stratum (I) and the stratum immediately above it. For this reason we assumed that the highest income stratum of the survey has an elasticity equal to 0.

$G (SI + 1)$ is spending on the product S corresponding to the next-highest stratum

$G (SI)$ is the spending on the product S corresponding to a determined stratum

$G (I + 1)$ is the total family spending corresponding to the stratum following stratum (I)

$G (I)$ is the total family spending corresponding to a determined stratum

$\Delta G (I)$ is the variation in the family spending of stratum I between 1969 and 1971.

On the basis of the pattern of consumption of the survey and of that projected for 1971, we proceeded to analyze the conduct of the total demand in the period from 1969 up to and including 1971. Also we calculated the pattern of consumption per person⁵ corresponding to each income stratum.

The projection of the total demand for the years 1969 and 1970 was made on the basis of the pattern of consumption detected by the survey. That of the year 1971 was projected on the basis of the elasticities of spending and the increase in the total consumption between 1969 and 1971. While it is possible that the pattern of consumption has been distorted since the end of 1972, due to the inflationary process and the speculative disruption of the mechanisms of commercial distribution of nutritional goods [Trans.Note: i.e., the black market], there can be no doubt that the aspirations to maintain and rise above the levels reached by the popular strata of the population during 1971, will be for a long time the starting point on the basis of which all their expectations regarding wages and social position will be outlined.

Between the years 1969 and 1970, as well as after 1971 we considered in the projection of total demand only the increases that arise from the natural increase of the population. Naturally the period between 1970 and 1971 is an exception, since there are substantial changes due to the redistribution of income.

Both the pattern of consumption and the total consumed obviously had to be contracted with the available supply, for the year of the survey, as well as for the year 1971. However, this balance the object of which was to verify the consistency of the results of the survey, since it was not possible to consume goods that were not available, did not prove to be completely satisfactory.

For one thing, as we indicated, the projection of total demand on the basis of the pattern of consumption shown in the survey, as well as that calculated for 1971, strictly speaking represent the situation of Greater Santiago, which means not taking into account the characteristics of consumption in other zones or regions of the country linked to special traditions, habits, and conditions. Also, due to the fact that we only have simple averages for the income strata and the dispersion of families in each one of them is unknown, we could probably be over- or underestimating the total demand in some cases.

In addition, the consistency of the facts on the available supply is really rather debatable. In spite of the fact that efforts were made to rely on production figures that were compatible among different sources, doubt has remained that that was really the case. Therefore one has to take the facts set forth above in the capacity of orders of magnitude subject to better adjustment through a more specific investigation.

⁵Since the knowledge of family composition existing in the different strata is not very reliable, we decided to take the general average for the country (5.1 members per family).

For the reason indicated, the balance between supply and total demand must be considered with due caution, since it has to do more with a comparison between two orders of magnitude obtained in separate and autonomous ways. This has the advantage that for the first time an effort is made to separate the calculation of the demand from that of the total supply. In the past, when "apparent consumption" was spoken of, the only thing that was being measured was the supply and not the demand.

In those cases in which the results of the survey were extremely incompatible with the available supply, we decided to maintain the same pattern, but adjusted to the supply. Thus, while we may have been dealing with apparent consumption, at least we took into account the variations in consumption between the strata.

As regards the supply, we have relied on all the existing sources of information for the purpose of balancing the different figures that exist in the country for a single product. In some cases the figures have been obtained directly from the agro-industrial enterprises, which by their nature have absolute control over a determined product (as in the case of IANSA with beets), or at least are the most important influence (as in the case of CONARSA with olive oil).

B. ANALYSIS OF THE TENDENCY TOWARDS INTERSTRATA CONSUMPTION 1968-69.

We calculated the elasticities of spending for 49 nutritional products (S=1, . . . 49) and for 4 levels of income (I=1, . . . 4), from 0-2; 2-4; 4-6; and 6-8 sueldos vitales.

The method used to calculate elasticities of spending in this study implies a series of assumptions:

a) For each income stratum we obtained an average consumption or expenditure for the product in question, by adding up all the observations of spending for that stratum and then dividing by the number of observations. Consequently, we did not consider the size of the family surveyed, and therefore we did not know the effect that this variable could have on the level of spending in any one level of income. Therefore, implicit in the elasticity of spending will be the elasticity of the size of the family, for which we do not have information regarding the existing bias.

In proportion as the family size increases one might expect that the spending for a determined product would remain constant or diminish (elasticity of family size is negative or near zero) if that good is a luxury product at that level of income, and that it will increase (elasticity is positive and near 1) if the product is a basic necessity.⁶

⁶ Romualdo Roldán, Análisis Econométrico de Presupuestos Familiares. Una estimación por estratos de ingreso, Thesis to obtain the title of Commercial Engineer, University of Chile, 1971, p. 38.

b) We are also ignorant of the effect on the level of spending for a product brought about by such variables as: levels of education, regional habits of consumption, etc. It has been assumed that the differences observed in the levels of spending upon passing from one stratum to another are explained exclusively by higher levels of income. The same assumption is made within each stratum upon averaging the levels of spending for the different families surveyed. This assumption together with assumption a) cause the elasticities of spending obtained to include other effects apart from the effect of income on the level of expenditure.

c) It has been assumed that when the level of income of a determined stratum increases, whether it is through growth of the total income or through a redistribution of the income in its favor, the level of spending of the families of that stratum for the different products follows the same pattern as that of the average family of the next highest stratum.

d) It has been assumed that the elasticities of spending of the average family of the stratum of 8 or more sueldos vitales are equal to zero. The necessity for this assumption arises from the lack of information necessary to calculate the respective elasticities of spending (one would need to know the levels of spending of a higher stratum, for which in turn one would not have available the information necessary to calculate its elasticities of spending) beyond a theoretical rationalization with regard to the values of these elasticities.

This is an assumption that one must keep in mind when studying the values obtained for the average elasticities of spending for the different products, as well as for the average elasticities of spending per group of products. With the exception of those cases in which this income stratum might have negative elasticities of spending, this assumption would result in less than real average elasticities.

e) The calculations of the elasticities of spending were made with the facts corresponding to Greater Santiago, and therefore the elasticities are representative of the preferences of these consumers. However in the projection they were used as representative of the preferences of the consumers of the entire country, since they were used to project the quantities demanded by income strata for the total number of families within each stratum. The regional differences in the values of the elasticities of spending in some cases may tend to compensate one another in proportion as they go in opposite directions, but there is no reason to expect that that has happened.

f) Elasticities of income were not calculated, only elasticities of spending. Two considerations are important in this regard: on the one hand this means that the greater or lesser facility of access to credit and the cost of credit are going to influence the levels of spending, affecting as a result the values of the elasticities of spending, since for any one level of income the level of spending will be greater when the sources of credit are cheaper and more accessible. On the other hand, the variable income can be considered as an exogenous variable within this analysis, since it cannot be maintained with regard to total expenditure, which fact would introduce an additional bias to the calculation of the elasticities.

g) In all the calculations the changes in quality of the products consumed by the different income strata are unknown, the assumption being made that the same prices are paid for identical products. The elasticities of spending thus calculated will differ from those calculated with facts on spending in physical terms or from those calculated after an adjustment for changes in quality.

h) We have only considered the spending for certain foods (49 products in all) and the elasticities in spending have been calculated with regard to the total spending on these products.

The criterion for judging the assumptions that have been used ought to depend on the use made in this work of the elasticities in spending thus calculated. What we are interested in knowing is the levels of demands for the different products that would have been produced during 1971 as a result of the redistribution of income that took place in that year.

In this section an analysis will be made of the results obtained for the values of interstrata elasticities of spending for individual products, as well as for groups of products. It is interesting to analyze the values of these elasticities for each stratum, as well as their inter-strata differences. A comparison will also be made with the results obtained in other studies.

Considering all the limitations of the elasticities of spending calculated here and the fact that the choice of the nutritional products that were included was based on a criterion of basic or essential products, one might expect the analysis of the elasticities of spending to fulfill the following relations:

- For the strata of lower incomes, the elasticities of spending for the basic products would be greater or near 1, (and less than those of the goods of basic consumption) for the luxury items. The reverse is likely to be true for the higher income strata.⁷ It is assumed that at the levels of the lower income strata the minimum requirements for the basic products have not been satisfied.

- Among strata the comparison ought to show that the elasticities of spending for the goods of basic consumption should be greater for the low income strata; and in the case of nonessential goods, the elasticities should be greater for the high income strata.⁸

These two propositions would be valid if we accept that assumption of diminishing marginal utility, independence of the preferences and habits of the consumer, and perfect knowledge and rationality of the consumer;⁹ in other words, they reflect the neoclassic hypotheses on the behavior of the consumer.

⁷Ibid., pp. 4-5.

⁸Ibid.

⁹Ibid.

It is possible that, given the more or less basic character of all the products included, these differences might not be significant in the elasticities calculated and consequently the propositions might not be met, and not necessarily because the behavioral assumptions are not fulfilled.

The elasticities of spending for the different products according to income strata have been divided into three categories:

1) Negative elasticities of spending, that is, inferior goods whose consumption diminishes in absolute terms as the level of spending increases.

2) Elasticities of spending between 0 and 1, that is, normal goods whose consumption increases as the level of spending increases, but less than proportionally (which means that their proportion within the total expenditure is diminishing). Neoclassic theory postulates that the majority of foods belong in this category.

3) Elasticities of spending greater than 1, luxury goods, that is, those whose consumption increases more than proportionally as the level of spending increases, so that their participation within the total increases.

In order to be able to make a more general analysis, the products, and as a result the elasticities of spending, have been combined into the following 10 groups of goods:

- Group 1: flours and starches
- Group 2: meats (beef, pork, and lamb, excepting rump roast, loin, and fillet)
- Group 3: meats, rump roast, loin, and fillet
- Group 4: chicken
- Group 5: fish
- Group 6: oils
- Group 7: eggs and dairy products
- Group 8: greens and fruits
- Group 9: sugar
- Group 10: others (includes: instant coffee, tea, tomato sauce, beverages, etc.)

The analysis of the percentages of total spending that the different income strata designate according to categories of elasticities of spending, permits us to make the following generalizations (see Table 28).

a) The strata of 2-4 and 4-6 present a high percentage of their total spending on goods with negative elasticity: 21 percent and 32 percent, respectively. This compares with 2 percent for the stratum of 0-2 and 4 percent for that of 6-8.

b) The strata of 2-4 and 4-6 present an equal percentage of their total spending (56 percent) on products with elasticities of spending between 0 and 1, which is considerably lower than the percentages presented by the stratum of 0-2 (with 39 percent) and that of 6-8 (with 92 percent).

c) In the category of elasticities between 1 and 2, the stratum of 2-4 has the highest percentage of its spending on this type of goods (with 12 percent), while that of 6-8 has only 2 percent. The strata of 0-2 and 4-6 have similar behavior with 3 percent and 6 percent, respectively.

d) The same situation repeats itself if one considers the percentages of spending on products with elasticities greater than 1 (that is, those with elasticities between 1 and 2 and greater than 2). The stratum of 2-4 has the highest percentage with 20 percent, and that of 6-8 has the lowest with 4 percent, while those of 0-2 and 4-6 both have 9 percent.

Table 28

Percentage of the total spending by categories of elasticities, for the different income strata

Categories of elasticities	Income strata			
	0-2	2-4	4-6	6-8
Negative	2	21	32	4
Between 0 and 1	89	59	59	92
Between 1 and 2	8	12	6	2
Greater than 2	1	8	3	2
Total	100	100	100	100
Greater than 1	9	20	9	4

Source: Calculation based on the facts of the Poll of Family Budgets of INE, 1968-69.

Table 29

Percentages of the number of products, by categories of elasticities, for the different income strata

Categories of elasticities	Income strata			
	0-2	2-4	4-6	6-8
Negative	8	31	45	12
Between 0 and 1	66	37	39	66
Between 1 and 2	13	10	6	14
Greater than 2	13	22	10	8
Total	100	100	100	100
Greater than 1	26	32	16	22

The situation described in Table 28, complemented by Table 29, shows us the following:

- That the behavioral hypothesis proposed, which indicates that for the low income strata the essential products would have elasticities of spending greater than 1 (or near 1) and in any case greater than those of the non-essential goods, would not be fulfilled in this case. We can affirm this because, for the stratum of 0-2, the majority of the products included

(indicated by the percentages of the total spending and of the number of products) falls within the category of 0-1 elasticities greater than 1.0. In addition this is confirmed by analyzing the type of goods that fall within these two categories of elasticities. As an alternative explanation to this hypothesis one could consider that this stratum has risen above certain minimal levels of consumption of these goods (especially because of the high level of indebtedness that at present permits it to reach levels of consumption higher than those its level of income alone would permit). In addition, given that all the goods included are foods (and relatively essential), one could consider that they would fall within the classifications of normal goods (elasticities between 0 and 1) and luxury items (those with elasticities greater than 1). The percentage represented by the inferior goods could be explained by this same alternative hypothesis.

This same alternative hypothesis could explain the behavior of the highest income group, that of 6-8 sueldos vitales. For this stratum, 66 percent of the products are in the category of 0-1 with 92 percent of the total spending. It presents a greater percentage of the expenditure and of the number of products in goods with negative elasticity (greater than the stratum of 0-2) and a lower percentage of spending and number of products in goods with elasticity greater than 1.

In general, the patterns of spending of the strata 0-2 and 6-8 by categories of elasticities are fairly similar. In addition to the fact that the levels of indebtedness tend to make the situation more similar for these two strata than what one would expect given their differences of income, another element that could help to explain this similarity is the demonstration effect on consumption (which the neoclassic theory assumes to be absent). This effect is possibly more important for the explanation of similar behavior in the consumption of goods other than nutritional ones, but it could be present here.

The strata of 2-4 and 4-6 present a rather different situation. It is difficult to explain the high percentages, in spending as well as in the number of products, of the goods with negative elasticities for these two strata. If the percentages of 31 and 45 percent of the number of products for these strata corresponded to a greater percentage for the stratum of 6-8, accompanied by a diminishing percentage of the spending on this type of product (that is, greater for the stratum of 0-2 and lower for that of 6-8), the alternative hypothesis would permit us to explain this behavior, since in proportion as the income rises there would be numerous products that could change from being essential goods to being inferior, but on which the family spends lower proportions of its income. But this does not happen.

In addition, the percentages of spending and of number of products of luxury goods are greater for the stratum of 2-4 than for the other three strata, again in opposition to the alternative hypothesis proposed.

For these two intermediate strata, the primitive hypothesis of behavior would permit the explanation of more than the alternative. It has not been possible for us to find a behavioral hypothesis that would explain the behavioral variants of the four income strata simultaneously.

Table 30

Percentages of spending on the different groups of products, by categories of elasticities, for the different income strata

Group of products	Categories of elasticities	Negative elasticities				Elasticities between 0 and 1				Elasticities greater than 1			
		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8
Group 1		-	45	36	10	100	55	64	90	(*)	(*)	-	(*)
Group 2		3	26	18	5	90	15	35	85	7	59	47	10
Group 3		-	-	-	-	33	-	100	88	67	100	-	12
Group 4		-	-	-	-	-	-	100	100	100	100	-	-
Group 5		-	100	100	-	100	(*)	-	(*)	(*)	(*)	(*)	100
Group 6		-	-	(*)	-	100	100	100	100	(*)	(*)	-	(*)
Group 7		-	-	-	-	100	79	100	100	-	21	-	-
Group 8		9	10	89	13	91	90	-	87	-	-	11	-
Group 9		-	-	100	-	100	100	-	100	-	-	-	-
Group 10		-	22	67	(*)	80	78	33	100	20	-	(*)	-

Source: Calculation based on the facts of the Poll of Family Budgets of INE, 1968-69.
 (*) not significant percentage of the total spending on that group of products.

Note:

$$\sum_{k=1}^3 A_{ijk} = 100 \quad \text{for } i = 1, \dots, 10$$

$$k = 1 \quad \quad \quad j = 1, \dots, 4$$

$$\quad \quad \quad \quad \quad k = 1, \dots, 3$$

i = group of products
 j = income stratum
 k = category of elasticities
 [1 = negative, 2 = between 0 and 1
 3 = greater than 1.]

Table 30 shows the percentages of spending on the different groups of products, by categories of elasticities, for the different income strata. Consequently it gives us a more precise idea of which are the groups of products that are represented in the different categories of elasticities, as well as how their spending is broken down among the different categories and how these percentages differ according to income strata.

Some generalizations that can be made are:

- a) In the category of negative elasticities, only groups 2 and 8 show products for all the strata.
- b) Only for the strata of 2-4 and 4-6, fish (group 5) falls within this category of negative elasticities, and even though this group is also represented in other categories of elasticities for these strata, it is not represented with significant percentages of the spending on that group for the respective stratum.
- c) Sugar has negative elasticities only for the stratum of 4-6.
- d) Of the groups 3, 4, and 7 there is not a single product in this category of negative elasticities, for any stratum. Of group 6 only margarine has negative elasticity of spending, for the stratum of 4-6.
- e) For the category of elasticities between 0 and 1, that is, normal goods, almost all the groups of products are represented for all the strata. In addition, some groups are represented practically in their entirety in this category, for some strata (or for all).
- f) Only group 2 is represented in this category, for two income strata, in percentages lower than 50 percent.
- g) In the category of elasticities greater than 1 (superior or luxury goods), only group 2 is represented for all the strata. Group 3 as well as group 4 have an important representation, although not for all the strata. The other groups have practically no representation in this category of elasticities.

It is also interesting to know the differences in the values of the elasticities of spending for groups of products among strata, as well as the differences in their orders within each stratum. For this purpose, two types of calculations were made:

- 1) For groups of products ($i = 1, \dots, 10$), the average elasticities of spending for each stratum were calculated, ($J = 1, \dots, 4$) = \bar{E}_{ij} , using the following formula:

$$\bar{E}_{ij} = \frac{\sum_{s=1}^{t_i} E_{sij} \cdot G_{sij}}{\sum_{s=1}^{t_i} G_{sij}} \quad \text{for } i = 1, \dots, 10 \text{ and } j = 1, \dots, 4$$

where

E_{sij} = elasticity of the product S, of group i, for stratum j

G_{sij} = spending on the product S, of group i, for stratum j.

t_i = number of products of group i.

Then an average elasticity of spending was calculated (averaging across the strata) for groups of products: \bar{E}_i

$$\bar{E}_i = \frac{\sum_{j=1}^5 \bar{E}_{ij} \cdot N_j}{\sum_{j=1}^5 N_j} \quad \text{for } i = 1, \dots, 10$$

where N_j = number of families for stratum j
 $\sphericalangle \bar{E}_{ij} = 0$ for all the i .

Finally, $\sphericalangle \bar{E}_{ij}$, that is, the standard deviation of the \bar{E}_{ij} , was calculated according to the following formula:

$$\sphericalangle \bar{E}_{ij} = \sqrt{\frac{\sum_{j=1}^5 (\bar{E}_{ij} - \bar{E}_i)^2 \cdot N_j}{\sum_{j=1}^5 N_j}} \quad \text{for } i = 1, \dots, 10$$

where $\bar{E}_{i5} = 0$ for all the i .

To get an idea of the relative dispersion for groups of products, the following expression was used:

$$\sphericalangle \bar{E}_{ij} / \bar{E}_i$$

that is, it was used to measure the standard deviation in relation to the average.

The \bar{E}_{ij} permit us to compare the average elasticities of spending for groups of products for the different income strata. In this way one can get an idea not only of the absolute values reached by these elasticities (in relation to key values like 0, 1, or greater than 1), but also of how they compare to one another among strata. The order of the \bar{E}_{ij} is important for observing the extent of fulfillment of the hypothesis that for the lower income strata the elasticities of spending for basic products should be near 1 and greater than those of the luxury goods, and vice versa for the higher income strata. In the inter-strata comparison of the \bar{E}_{ij} it is interesting to see if the average elasticities of spending for basic products are greater for the lower income strata than for the higher income strata, and vice versa for the luxury products. The use of the expression $\sphericalangle \bar{E}_{ij} / \bar{E}_i$ gives a certain idea of the relative dispersions, but it does not permit us to say if the observed differences among the \bar{E}_{ij} , for any one i , are significant or not (in a statistical sense), although it does show for which group of products these differences are most important.

2) In addition we calculated the average value of the elasticities of spending of the different groups of products, by categories of elasticities, for the different income strata: $= E_{ijk}$ according to the following formula:

$$\bar{E}_{ijk} = \frac{\sum_{s=1}^{rik} E_{sijk} \cdot G_{sijk}}{\sum_{s=1}^{rik} G_{sijk}} \quad \begin{array}{l} \text{for } i = 1, \dots, 10 \\ j = 1, \dots, 4 \\ k = 1, \dots, 3 \end{array}$$

where:

E_{sijk} = elasticity of spending of product s , belonging to group i , for stratum j , within the category of elasticities k .

G_{sijk} = spending on product s , of group i , for stratum j , within the category of elasticities k .

rik = products of group i , for the category of elasticities k .

$k = 1$ = negative elasticities

$k = 2$ = elasticities between 0 and 1

$k = 3$ = elasticities greater than 1.

In addition, we calculated an average elasticity of spending per stratum, for each category of elasticities: \bar{E}_{jk} according to the following formula:

$$\bar{E}_{jk} = \frac{\sum_{i=1}^{10} E_{ijk} \cdot G_{ijk}}{\sum_{i=1}^{10} G_{ijk}} \quad \begin{array}{l} \text{for } j = 1, \dots, 4 \\ k = 1, \dots, 3 \end{array}$$

where:

G_{ijk} = spending on group i , for stratum j , in the category of elasticities k .

The values of \bar{E}_{ijk} permit us to compare by categories of elasticities for the different strata (not compensating, therefore, the difference in elasticities of spending among products, as for the \bar{E}_{ij}). They permit us to analyze by categories of elasticities the order of the different groups of products that is produced within each stratum, as well as the inter-strata comparisons. Therefore, they permit us to observe at a lower level of compensation than the \bar{E}_{ij} , whether or not the two behavioral hypotheses outlined at the beginning are fulfilled.

We will analyze the results of these calculations in the following pages:

Table 31 shows the \bar{E}_{ijk} .

Table 31

Average elasticities of spending for groups of products, for the different income strata
Eijk

Groups of Products	Income strata	0-2	2-4	4-6	6-8	\bar{E}_i *
Group 1		.38	.18	.14	.22	.27 (.30)
Group 2		.75	1.43	1.30	.28	.89 (.98)
Group 3		1.17	3.02	.83	1.02	1.51 (1.66)
Group 4		1.46	1.20	.44	.39	1.15 (1.26)
Group 5		.55	.63	1.61	1.53	.64 (.70)
Group 6		.40	.13	.53	.14	.30 (.33)
Group 7		.53	.81	.51	.23	.54 (.60)
Group 8		.21	.39	.15	.14	.23 (.25)
Group 9		.32	.08	-.01	(0.11)	.20 (.22)
Group 10		.45	.51	.10	.23	.39 (.43)
TOTAL		.49	.54	.41	.28	.45 (.49)

Note: the figures for \bar{E}_i between parentheses are calculated according to the following formula:

$$\bar{E}_i = \frac{\sum_{j=1}^4 \bar{E}_{ij} \cdot N_j}{\sum_{j=1}^4 N_j}$$

that is, a weighted average of the elasticities of spending for $j = 1, \dots, 4$, without considering $\bar{E}_{i5} = 0$.

Source: calculations based on the facts of the Poll of Family Budgets of the INE, 1968-69.

The arrangement from higher to lower of the elasticities of spending for groups of products (\bar{E}_{ij}) shows group 3 in a range of values between 0.75 and greater than 1.0 for all the strata, having elasticity greater than 1 for all of them with the exception of the stratum of 4-6. For the two strata of lower incomes, the groups of products in the range of 0.75 to greater than 1.0 are the same: 2, 3, and 4 (although not in the same order). For the higher income strata, in this range of values we find groups 3 and 5, and for the stratum of 4-6 group 2 is also present. For the two strata of higher incomes, group 5 is the one that presents the highest elasticity of spending.

Consequently, if we accept the hypothesis that for the lower income strata the basic products have elasticities of spending greater than those of the luxury products (and near 1), with the opposite situation existing for the high income groups, we would have to conclude that: groups 2, 3, and 4 would be basic products for strata 0-2 and 2-4, and at the same time nonessential products (groups 2 and 3) for strata 4-6 and 6-8. This conclusion would be in opposition to the expected, that is, that a luxury product for a low income stratum should come to be basic for the higher income stratum, but not vice versa.

Now, if the last four places in the order of the \bar{E}_{ij} are considered, the groups of lowest elasticities of spending are in agreement for the strata of 0-2, 2-4, and 6-8 (they are: 1, 6, 8, and 9), and for the stratum of 4-6, three of the four are the same (1, 8, and 9). In this case, luxury goods (in relative terms) for the lower income strata come to be basic goods for the higher income strata. The problem here is due to the type of goods involved, since one would expect them to be essential goods for all the strata, or essential goods for the low income strata and inferior goods for those of high incomes, instead of the situation that is outlined.

Therefore, it could be concluded that the behavioral hypothesis outlined is not fulfilled (given the characteristics of essential goods presented by all the products included), or is fulfilled only for the high income strata and not for those of low incomes, or there could exist a problem of aggregation. In order to see how the situation changes if we regroup the strata, average elasticities of spending for groups of products were calculated for: strata 0-2 and remainder, and strata 0-4 and remainder. Calculations were made for the remainder (in both cases) taking into consideration the income stratum of 8 and more sueldos vitales, which we assumed has elasticities of spending equal to 0 by hypothesis. This regrouping also facilitates the inter-strata comparison.

As Table 32 indicates, the regrouping delivers the same results with regard to the order of the E_{ij} as the more aggregated grouping. In fact the order is more similar for the two sets of groupings than in the more aggregated case. Obviously, when the stratum of 8 and more is not considered in the "remainder," the values of the elasticities of spending are higher but keep the same order (these last elasticities are the ones presented in Table 32).

The alternative behavioral hypothesis suggests that the order should be the same for all the income strata (since the differences in the levels of income tend to be compensated for by the different levels of indebtedness): If we accept this hypothesis, the same groups of products would be basic and the same would be nonessential for all the strata, and this would come basically through the absolute values of the elasticities with respect to the value 1.0. For the low income stratum (0-2), groups 2, 3, and 4 would be nonessential. For the "remainder" (not including that of 8 and more), group 5 is added to these three groups.

When they are grouped from 0-4 and remainder (including that of 8 and more), groups 2, 3, and 4 are luxury products for stratum 0-4, and the remainder does not present groups of products with elasticities of spending near or greater than 1. When the stratum of 8 and more is not considered in the remainder, groups 2 and 5 are luxury products for the remainder.

Table 32

Average elasticities of spending for groups of products

Groups of products	Income strata		Remainder (without 8 & +)	
	0-2		0-4	
Group 1	.38	.17	.32	.16
Group 2	.75	1.31	.97	1.05
Group 3	1.17	2.37	1.76	.88
Group 4	1.46	.97	1.38	.43
Group 5	.55	.92	.58	1.59
Group 6	.40	.22	.31	.43
Group 7	.53	.70	.62	.44
Group 8	.21	.32	.27	.15
Group 9	.32	.06	.24	.02
Group 10	.45	.40	.47	.13
TOTAL	.49	.49	.51	.38

Source: Calculations based on the facts of the Poll of Family Budgets of the INE, 1968-69.

All the remaining groups would be basic or essential products, and at this level of aggregation (by groups of products) there are no groups of inferior goods.

The comparison between the \bar{E}_{ij} for the different strata, for groups of products, is intended to verify whether or not the second behavioral hypothesis is fulfilled, that is, that the elasticities of spending of the goods of basic consumption should be greater for the low income strata, and those of the nonessential goods should be greater for the high income strata. According to the orders in each stratum and the absolute values of the \bar{E}_{ij} , the groups of basic products would be groups 1, 6, 7, 8, 9, and 10, while groups 2, 3, and 4 would be nonessential goods. Group 5 constitutes a basic good for stratum 0-2, and a luxury good for the remainder.

It is more convenient to carry out this comparison among the \bar{E}_{ij} on the basis of the information presented in Table 32 than on that presented in Table 31, since it is difficult to draw conclusions from the latter information, especially for the behavior shown by stratum 6-8.

When we analyze the values of the elasticities of spending for the grouping 0-2 and remainder (not including the sector 8 and more) we see that the hypothesis would be fulfilled for groups 1, 2, 3, 6, 9, and 10, and not for groups 4, 7, and 8, with group 5 being a special group, since it is basic for the income stratum of 0-2 and nonessential for the remainder (the other strata).

For the grouping of 0-4 and remainder (not including the sector of 8 and more), the hypothesis is fulfilled for groups 1, 2, 7, 8, 9, and 10, but not for groups 3, 4, and 6.

For the grouping of 0-2 and remainder (without 8 and more), the values of the expression \bar{E}_{ij} (see Table 33) show that groups 10, 7, 4, and 8

present the lowest relative dispersions. Of these groups, groups 7, 4, and 8 do not fulfill the hypothesis, and it is possible that the differences are not significant. When the grouping of 0-4 and remainder is considered, the values of the expression $\sum E_{ij}$ are lower for groups 2, 7, 6, 3, and 1. The hypothesis is not fulfilled for groups 3 and 6.

Therefore, it is more difficult to conclude that the differences might not be significant and that that would explain why the hypothesis is not fulfilled. When the sector of 8 and more is considered in the remainder, and consequently one is speaking of the elasticities of spending used implicitly in the projections of demand, the hypothesis is fulfilled for groups 1, 2, 3, 6, 9, and 10, and not for groups 4, 7, and 8; that is, the situation is the same as for the grouping of 0-2 and remainder when the sector of 8 and more is not considered.

For the grouping of 0-4 and remainder, including the sector of 8 and more, the hypothesis is fulfilled for groups 1, 6, 7, 8, 9, and 10, and not for groups 2, 3, and 4, differing, therefore, from the case in which the sector of 8 and more is not included in the remainder.

When the expressions of relative dispersion are analyzed, including the stratum of 8 and more, we see that for the grouping of 0-2 and remainder the lower values correspond to groups 7, 4, 8, 5, 10, and 2; that is, they include all the groups for which the hypothesis is not fulfilled. For the grouping of 0-4 and remainder, the lower values of relative dispersion correspond to groups 6, 4, 2, and 5; that is, they include two of the three groups for which the hypothesis is not fulfilled.

Table 33
Average elasticities of spending for groups of products

Groups of products	Income strata	0-2	Remainder (with 8 & more)	0-4	Remainder (with 8 & more)
Group 1		.38	.14	.32	.09
Group 2		.75	1.06	.97	.58
Group 3		1.17	1.91	1.76	.49
Group 4		1.46	.78	1.38	.24
Group 5		.55	.74	.58	.89
Group 6		.40	.18	.31	.24
Group 7		.53	.56	.62	.28
Group 8		.21	.26	.27	.08
Group 9		.32	.05	.24	.01
Group 10		.45	.32	.47	.07
TOTAL		.49	.40	.51	.21

Source: Calculations based on the Poll of Family Budgets of the INE, 1968-69.

Table 34

Expressions of relative dispersion of the average elasticities of spending for groups of products

$\Delta \bar{E}_{ij}$

Groups of products	Groupings by income	\bar{E}_{ij} (w/o 8 & more)	\bar{E}_{ij} (w/8 & more)	0-2/re-maind. (w/o 8 & +)	0-2/re-mainder (w/8 & more)	0-4/re-mainder (w/o 8 & +)	0-4/re-mainder (w/8 & more)
Group 1		.340	.479	.344	.443	.174	.336
Group 2		.343	.478	.280	.173	.027	.175
Group 3		.510	.628	.355	.244	.173	.335
Group 4		.262	.417	.191	.029	.246	.125
Group 5		.476	.587	.259	.154	.471	.193
Group 6		.417	.538	.268	.379	.120	.094
Group 7		.237	.404	.139	.008	.098	.281
Group 8		.352	.482	.216	.112	.187	.329
Group 9		.587	.690	.580	.698	.328	.460
Group 10		.267	.422	.057	.172	.258	.409
TOTAL		.105	.330	.00	.103	.087	.186

Source: Calculations based on the facts of the Poll of Family Budgets of the INE, 1968-69.

Table 34 also shows the values of the expression $\Delta \bar{E}_{ij}$ calculated for the four income strata and not for the groupings of strata. The group that shows the lowest relative dispersion is group 7, followed by groups 4, 1, and 2.

An interesting fact to point out is that this expression presents values greater than those of the same expression for groupings of strata. This situation also occurs when the stratum of 8 and more is included.

As a conclusion of the analysis of the \bar{E}_{ij} and the $\Delta \bar{E}_{ij}$ expressions one can say that the alternative hypothesis will better explain the behavior described by the survey and the criterion utilized in the projections of demand in this study. With respect to the hypothesis regarding inter-strata behavior, it could be said that in general the hypothesis outlined is fulfilled when the results for groupings of strata are analyzed, especially for the grouping of 0-2 and remainder (including and not including the stratum of 8 and more).

Table 35 shows the results of the calculation of the \bar{E}_{ijk} , that is the average elasticities of spending of the different groups of products by categories of elasticities, for the different income strata. From the information given in this table we find that at the level of average in the inter-strata comparison, with the exception of the negative elasticities, the strata 0-2, 2-4, and 4-6 conform to what is expected for the category of elasticities greater than 1.0, but the stratum of 6-8 does not, while for the elasticities between 0 and 1 it is the stratum of 4-6 that does not conform to the expected values.

Table 35

Average elasticities of spending for groups of products, by categories of elasticities, for the different income strata.

\bar{E}_{ijk}

Groups of products	Categories of elasticities	Negative elasticities				Elasticities between 0 and 1				Elasticities greater than 1			
		0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8	0-2	2-4	4-6	6-8
Group 1		-	-.04	-.03	-.01	.37	.34	.23	.20	10.67	3.12	-	1.33
Group 2		-.17	-.05	-.06	-.02	.62	.72	.49	.15	2.62	2.32	2.48	1.94
Group 3		-	-	-	-	.91	-	.84	.83	1.27	3.02	-	2.65
Group 4		-	-	-	-	-	-	.44	-	1.46	1.20	-	-
Group 5		-	-.19	-.11	-	.27	.68	.50	.35	2.06	5.97	4.6	1.87
Group 6		-	-	-.59	-	.39	.12	.54	.14	21.29	1.90	-	1.03
Group 7		-	-	-	-	.52	.65	.51	.23	-	1.37	-	-
Group 8		.04	-.09	-.01	-.05	.24	.42	-	.15	-	-	1.36	-
Group 9		-	-	-.01	-	.32	.08	-	.11	-	-	-	-
Group 10		-	-.08	-.03	-.11	.26	.26	.34	.25	1.08	-	1.35	-
Average		-.10	-.05	-.03	-.03	.39	.39	.50	.25	1.48	2.03	2.40	2.02

Source: Calculations based in the facts of the Poll of Family Budgets of the INE, 1968-69.

With regard to the values of the \bar{E}_{ijk} for groups of products, the same situation as that of the \bar{E}_{ij} is presented for the four strata, aggravated by the fact that the further breakdown by categories of elasticities makes it impossible to verify whether or not the proposed behavioral hypotheses are fulfilled.

Therefore, we will stay with the \bar{E}_{ij} , grouped in 0-2 and remainder (including and not including the stratum of 3 and more), with conclusions noted regarding the two hypotheses.

When the situation is analyzed at the level of individual products, for the values of the E_{sij} and the expression of relative dispersion, one can appreciate that the differences among strata are much greater and therefore the expression of relative dispersion also assumes values on a much higher level (from 33.6 percent for liquid milk to 407.7 percent for fish). The higher values for the ΔE_{i5} expression occur for products belonging to different groups, and therefore part of that information is lost in the aggregation. A comparison by strata of the differences and behaviors of the E_{sij} would be very lengthy, but one can conclude that the aggregation by groups of products (like any average) obscures differences. For the standard of production, which ought to be given at the individual product level, these differences are fundamental, justifying a method of projection of demand at the individual product level and in physical terms, in order to then balance it, with the supply, also in physical terms.

Finally, we will include a comparison of the values of the elasticities of spending for groups of products obtained here with those of the study of R. Roldán, using a log-log function in the adjustment. The values obtained are fairly different, especially for eggs, fruits, and greens for the stratum of 0-2, and for fruits and greens, sugar, eggs, and meats for the remainder. We can not determine the level of significance of these differences. The study of Roldán determined that the inter-strata differences were significant only for fruits, although he applied the test to the elasticities of spending and of family size simultaneously. Another important point here is the degree of aggregation at which the elasticities were calculated, which at least with the methodology employed in this study tends to diminish the dispersion in proportion as the elasticities are grouped together, with the dispersion being much greater at the level of individual products.

Table 36

Products	Elasticities for spending for groups of products				
	Strata (log-log)	Roldán 0-2 (log-log)	Study 0-2 (log-log)	Roldán 2 & + (log-log)	Study 2 & + (w/o 3 & +)
Flours	.190	.38	.213	.17	.14
Meats	.909	.75	.753	1.31	1.06
		1.17		2.37	1.91
Fish	.400	.55	.604	.92	.74
Oils	.274	.40	.235	.22	.18
Eggs	.734	.04	.633	1.10	.88
Fruits	1.172	.21	.708	.32	.26
Greens	.366		.294		
Sugar	.221	.32	.275	.06	.05
Tea, coffee, bevs.	.427	.45	.483	.40	.32

Source: Roldán, "Análisis Econométrico," p. 43. Present study: Calculations based on Poll of Family Budgets of the INE, 1968-69.

Table 37

Elasticities of spending for groups of products

Products \ Strata	Roldán 0-2 (semi-log)	Study 0 - 2	Roldán 2 & + (semi-log)	Study 2 & + (w/o 8 & +)	Study 2 & + (with 8 & +)
Flours	.436	.38	.545	.17	.14
Meats	1.767	.17	1.839	1.31	1.06
		1.17		2.37	1.91
Fish	.744	.55	1.645	.92	.74
Oils	.472	.40	.865	.22	.18
Eggs	1.651	.04	1.653	1.10	.88
Fruits	2.026	.21	1.706	.32	.26
Greens	.800		.707		
Sugar	.493	.32	.954	.06	.05
Tea, coffee, bevs.	.733	.45	1.195	.40	.32

Source: Roldán, "Análisis Econométrico," p. 44.
ODEPLAN, Idem Table 36

Table 37 shows the results obtained in the study of Roldán, but utilizing a semi-log function in the adjustment. This adjustment provides higher values of elasticities than the log-log adjustment. In this case, the most important differences in the estimated values in both studies appear for meats, eggs, fruits, and others for the stratum of 0-2, and for flour, fish, oils, eggs, fruits and greens, sugar, and others for the remainder.

The differences are always in favor of the values calculated by Roldán, which could indicate that the slants of the values of the elasticities of spending calculated here could present, given the methodology employed, a downward tendency, manifesting itself in an under-estimation of these values. For this adjustment the study of Roldán shows significant inter-strata differences (for the two elasticities calculated simultaneously) for meats, fish, eggs, and fruits, although the author advances the hypothesis that only for fish would the difference in the elasticities of spending be what would determine the significance of the differences encountered. For the other three groups, the differences in the elasticities of family size, among strata would determine a significant difference for the two elasticities simultaneously. These inter-strata differences would not coincide with those shown by the present study, for which the major differences (measured by the relative dispersion) would be for flours, meats, fish, eggs, and sugar, coinciding therefore only for fish. An additional fact to be mentioned here, apart from the fact that the test was applied to the two elasticities simultaneously, is that of the products considered within each group. In addition, the elasticities of spending calculated in this study implicitly represent the elasticity of family size.

The conclusion of this comparison as it refers to the existence of significant inter-strata differences is that it would seem that the present study shows greater differences in the values of the inter-strata elasticities of spending, although we cannot determine their significance.

With regard to the comparison of the values obtained as such, important differences can be seen, although the change in the function used in the study of Roldán substantially modifies the values obtained. As we have already indicated, part of that difference could be explained by the elasticity of family size, although it is doubtful by how much they are always in the same direction.

One of the conclusions of the study of Roldán would be a lack of significant differences in the values of the inter-strata elasticities of spending. As we have already indicated, that could be explained by the degree of aggregation with which the study was carried out. The differences found in our study at the individual product level are much greater than at the level of groups of products, and the latter are most important in a study of this type.

CHAPTER THREE: THE REDISTRIBUTION OF INCOME, THE NEW PATTERN OF CONSUMPTION, AND THE VARIATION IN REAL SPENDING ON ESSENTIAL FOOD GOODS

A. REDISTRIBUTION OF DISPOSABLE FAMILY INCOME 1970-1971.

During the year 1971 there occurred a redistribution of income that was accompanied by profound structural changes in the national economy and by an unprecedented increase in spending for the Gross National Product.

Between 1970 and 1971, the spending of the Gross National Product grew by 8.3 percent, which means 6.4 percent in terms of spending per person. In the previous year the same indicators reached only 3.7 percent and 1.8 percent, respectively.

The redistribution of income has come about principally through the readjustments of wages and salaries, which were increased by 35 percent, so that during the year 1971 the Consumer Price Index was reduced to 20.1 percent.

Another of the factors that influenced the new situation was the increase in employment, which reached a level of 225,000 new occupations.

In the case of family allowances, pension funds, and minimum wages, their readjustment was greater than the 35 percent mentioned above, and in some cases it was probably more than 50 percent, that is, more than double the amount by which prices rose at the retail level. The general effects of this policy were manifested in the rise in the proportion of consumption by people in the economy as a whole. While in 1970 family consumption was 69.1 percent of the total spending of the Gross National Product, in 1971 this amount rose to 73.6 percent.

In terms of income, the redistribution that was carried out permitted wage earners to participate in 65 percent of the national income, while this participation had reached only 53 percent in the past.

In terms of the stratification by levels of income, measured in sueldos vitales, this phenomenon takes shape in the following table. There one can observe that 80 percent of the families came to possess 41.3 percent of the total income (families of 0-2 and 2-4 sueldos vitales), while the minority group of a higher level of income descended from 49.4 percent to 43.0 percent of the total available income. (Families of more than 8 sueldos vitales.) The intermediate group also increased its relative participation from 14.7 percent to 15.7 percent.

The effect of the redistribution of income is really spectacular if it is analyzed from the point of view of the average disposable family income.

The family group that experienced the greatest increase was that of the lowest income. The proportion by which it rose is on the order of 39.5 percent, and that proportion has been particularly influenced by higher employment of the salaried class, a phenomenon which is also reflected in the remainder of the family groups, although to a lesser extent. As we can see in Table 39, while the impact on income is diminished, the lowest significant rate corresponds to the group of families of 8 to 10 sueldos vitales, with an 18.9 percent increase. The intermediate groups reached an increase of more than 20 percent, and the group of 2 to 4 sueldos vitales reaches almost 30 percent.

From the point of view of spending, the redistribution has had a double effect: on the one hand the level of indebtedness was reduced, and on the other hand the level of spending was increased.

From the point of view of indebtedness, it would seem that the intermediate strata found themselves balanced in their expectations, since their level of indebtedness was reduced to a slightly relevant proportion, and their spending increased by from 9.0 percent to 15.9 percent (strata of 8-10 and 4-6).

In spite of the fact that the lower strata reduced their rate of indebtedness, it still remains at a high level. The reason is that the increase in their spending was also important, with 24.2 percent in the lowest stratum and 18.6 percent in that of 2-4 sueldos vitales.

Table 38

Distribution of total available income in the years 1970-1971. (In millions of Escudos of 1970)

Strata of average Family income (SV)	1970			1971		
	Number of homes (thousands)	Total (mill.)	Total %	Number of homes (thousands)	Income (mill.)	Total %
0-2	1,043	10,500	17.2	1,061	14,904	20.6
2-4	492	11,416	18.7	501	14,980	20.7
4-6	159	5,983	9.8	162	7,559	10.5
6-8	53	2,991	4.9	54	3,746	5.2
8-10	35	2,381	3.9	36	2,911	4.0
10 and more	136	27,776	45.5	138	28,229	39.0
Total	1,918	61,047	100.0	1,952	72,329	100.0

Table 39

Redistribution of income. Average disposable family income in 1970-1971.
(In Escudos of 1970)

Strata of average family income (SV)	Number of homes (thousands)		1970		1971		Percentage of Variation (%)
	1970	1971	Average income per family		Average income per family		
			E of 1970	Equiv.SV	E of 1970	Equiv.SV	
0-2	1,043	1,061	10,067	1.36	14,047	1.90	39.5
2-4	492	501	23,203	3.13	29,900	4.04	28.9
4-6	159	162	37,629	5.08	46,660	6.30	24.0
6-8	53	54	56,434	7.62	69,370	9.36	22.9
8-10	35	36	68,029	9.18	80,861	10.91	18.9
10 and more	136	138	204,235	27.56	204,558	27.61	0.2
	1,918	1,952	*31,828	4.29	*37,054	5.00	16.4

*Weighted average

Table 40

Total consumption by income strata in 1970-1971. (In millions of Escudos, 1970)

Strata of average family income (SV)	1970		1971		1970	1971
	Consumption (millions)	Total (%)	Consumption (millions)	Total (%)	Savings(+) Debt (-)	Savings(+) Debt (-)
					(%) Savings Income	(%) Savings Income
0-2	17,115	26.7	21,618	29.2	- 63.0	- 45.0
2-4	14,727	23.0	17,786	24.1	- 29.0	- 18.7
4-6	6,725	10.5	7,941	10.7	- 12.4	- 5.1
6-8	3,395	5.3	3,937	5.3	- 13.5	- 5.1
8-10	2,702	4.2	3,030	4.1	- 13.5	- 4.1
10 and more	19,367	30.3	19,644	26.6	+ 30.3	+ 30.6
Total	64,031	100.0	73,956	100.0	- 4.7	- 2.2

Table 41

Total average family consumption in 1970-1971. (In Escudos of 1970)

Strata of average family income (SV)	Number of homes (thousands)		1970		1971		Percentage of Variation
	1970	1971	Average consumption per family		Average consumption per family		
			E of 1970	Equiv.SV	E of 1970	Equiv.SV	
0-2	1,043	1,061	16,409	2.21	20,375	2.75	24.2
2-4	492	501	29,932	4.04	35,501	4.73	13.6
4-6	159	162	42,295	5.71	49,020	6.62	15.9
6-8	53	54	64,052	8.65	72,907	9.84	12.6
8-10	35	36	73,213	10.42	84,162	11.36	9.0
10 and more	136	138	142,351	19.21	142,351	19.21	0.0
	1,918	1,952	33,382*	4.51*	37,887	5.11	13.5

* Weighted average

B. THE NEW PATTERN OF CONSUMPTION.

Tables 42, 43, 44, and 45 show the changes that probably took place in the pattern of consumption as a result of the redistribution of income. There are two variables involved in carrying out the projection of the new pattern of consumption: the tendency towards consumption of the families according to their level of income, and the increase in spending carried out by these families on the average. In fact we are dealing with a "potential consumption" whose measurement should be managed within certain limits of error, which unfortunately could not be calculated. Therefore we are not dealing with final results whose exactitude is indisputable, but rather with orders of magnitude around which it would be reasonable to determine a more realistic policy with regard to the consumption of foods.

The enumeration of each one of the results obtained would be very lengthy. In addition it would be impossible at this time to carry out a comparison with the highest income stratum since it was assumed that the consumption of this stratum would remain constant, as its elasticity of spending on foods was considered equal to 0. (See Tables 42, 43, 44, and 45.)

What we are interested in analyzing in the present chapter are some of the important results, or in other words, the impact caused by the change in the pattern of consumption.

From the point of view of the available supply, the modification in the pattern of consumption has demanded an impressive additional effort, which is even greater if one takes into account the traditionally modest growth of agricultural production. Taking into account the available supply of each one of the goods that are shown in Table 46 (rice, wheat, beef and chicken, olive oil, potatoes, and sugar), we will be able to observe not only the increase that is represented, but also the direction of the change.

As we will see, the lowest rate corresponds to sugar, due to the fact that we took into account the direct supply as well as the industrial, which in this case represents an important proportion. In all the other cases we would have to subtract the amount for consumption outside the home, which varies according to the product. It does not involve as great a magnitude as in the case of sugar, but nevertheless it would slightly increase the percentages presented in Table 46, so that the situation would be even more complicated from the point of view of the supply.

As we will see later, the tendency towards an increase in consumption occurs in the meat products, which are chicken and beef. In the first case the increase in consumption represented 17.3 percent of the total available supply of the year 1970, followed by the consumption of beef with 14.3 percent of the total. The rest of the products selected also presented an important jump, particularly rice and olive oil. In these cases the increase in consumption represented 13.1 percent and 12.0 percent, respectively, of the total available supply of 1970.

The way in which a balance was achieved between supply and demand will be explained in the appropriate chapter. For the moment what we have tried to show is the impact that the policy of redistribution of income has had on

consumption. The selection of goods made for this purpose is not arbitrary. In the first place, they are the most important as far as increases are concerned; and in the second place they are precisely those foods that have presented critical situations in recent years, from the point of view of supply.

In order to present a more integral view of the phenomenon being discussed, we present Tables 47, 48, 49, 50, 51, 52, 53, and 54, which show the consumption of calories and proteins per person, originating from the consumption of different products and groups of products. Tables 55 and 56 sum up the total consumption of calories and protein arising from the consumption of the different types of foods.

Table 42

Cereals and Legumes: Annual consumption per family in each income stratum. (In units)

Income strata (SV)	0-2	2-4	4-6	6-8	8 & more	Weighted average
1. Rice (kg)	56.3	63.5	86.8	69.1	68.9	62.2
2. Wheat (its derivatives)						
- Unbleached flour(kg)	28.9	39.0	42.6	35.4	63.5	35.9
- Cake flour (kg)	0.6	2.4	3.2	3.6	9.3	2.1
- Pastas (package)	102.9	117.4	111.9	103.7	121.2	109.0
- Common bread (kg)	245.1	271.9	181.2	133.0	112.3	231.7
- Special bread (kg)	244.6	330.4	367.1	406.2	478.8	302.1
3. Chickpeas (kg)	1.27	2.13	1.80	1.35	2.26	1.62
4. Lentils (kg)	5.1	5.6	3.9	3.4	4.5	5.0
5. Dried beans (kg)	27.2	30.4	21.6	18.5	24.2	27.3

Table 43

Meats, Fish, and Seafood: Annual consumption per family in each income stratum. (In units)

Income strata (SV)	0-2	2-4	4-6	6-8	8 & more	Weighted average
6. Beef (kg)						
- Boneless meat	31.4	63.7	104.9	154.0	190.3	63.7
- Stew meat	22.8	30.1	27.9	27.8	26.3	25.5
- Soup bone & shanks	4.8	6.9	10.2	15.0	34.5	8.7
- Lard	1.5	2.1	2.7	0.7	0.8	1.7
7. Lamb (kg)						
- Stew meat	3.7	4.3	3.6	2.8	4.2	3.9
- Chops	0.5	1.3	1.9	2.4	4.3	1.2
- Sirloin	1.3	1.7	2.0	2.6	4.0	1.7
8. Pork (kg)						
- Stew meat	0.9	1.0	1.3	1.2	2.0	1.1
- Chops	0.9	1.8	3.6	5.8	6.1	1.9
- Rib roast	0.4	1.3	1.7	1.6	3.1	1.0
9. Poultry (chicken)(kg)	18.4	36.6	47.2	56.6	74.8	31.6
10. Fish (kg)						
- Congor eel	--	1.1	2.9	4.5	14.0	1.9
- Hake	15.4	16.0	14.9	16.8	29.7	16.8
11. Shell fish (kg)						
- Clams	4.0	4.9	7.5	15.3	30.3	7.2
- Mussels	2.2	3.5	5.6	9.5	12.3	3.9
- Abalone (ea.)	0.4	1.4	5.3	15.1	29.4	4.1

Table 44

Dairy Products, Oils and Fat Products, Eggs: Annual consumption per family in each income stratum. (In units)

Income strata (SV)	0-2	2-4	4-6	6-8	8 & more	Weighted average
12. Milk						
- Liquid (liters)	131.2	215.5	278.0	353.9	478.3	202.3
- Powdered (jar)	13.0	19.4	25.1	35.1	39.0	18.5
- Condensed (jar)	13.4	22.1	27.5	32.9	39.0	19.6
13. Butter (kg)	10.2	14.6	15.9	17.2	20.3	12.9
14. Margarine (kg)	0.07	0.27	0.30	0.26	0.47	0.18
15. Eggs (ea.)	337.3	443.3	598.2	704.8	631.0	422.8
16. Cooking oil (liters)	48.3	59.4	74.3	79.3	88.9	57.8

Table 45

Various products: Annual consumption per family in each income stratum. (In units)

Income strata (SV)	0-2	2-4	4-6	6-8	8 & more	Weighted average
17. Onions (kg)	65.5	63.8	58.1	47.2	41.5	61.8
18. Potatoes (kg)	252.3	295.8	317.4	278.6	311.0	274.9
19. Sugar (kg)	108.5	128.4	130.4	121.7	133.2	118.0
20. Bananas (kg)	22.3	34.3	46.9	65.6	74.6	33.3
21. Coffee (jar)	8.9	15.7	19.4	22.1	25.4	13.4
22. Tomato sauce (jar)	50.3	60.6	56.2	55.5	79.5	56.2
23. Tea						
- Bags (box)	37.4	44.6	47.1	43.8	51.0	41.5
- Loose (kg)	8.2	9.8	10.3	9.7	11.8	9.2
24. Salt (package)	24.7	26.7	26.8	24.1	21.2	25.1
25. Beer						
- Ale (bottles)	7.5	8.2	8.7	9.3	7.1	7.8
- Beer (bottles)	15.2	21.5	16.8	24.2	32.4	18.7

Table 46

Impact of the increase in consumption on the available supply of 1970.

	Available supply 1970 (thousands tons)	Increase in consumption 1970-71 (thousands tons)	Percentage in relation to available supply
Rice	74.0	9.7	13.1
Wheat	1,339.9	115.8	8.6
Beef	193.1	28.7	14.8
Chicken	62.2	10.8	17.3
Cooking oil	71.2	8.6	12.0
Potatoes	463.7	31.7	6.8
Sugar ¹	279.8	14.1	5.0

¹ Includes both direct and industrial supply

Table 47

Consumption of calories per person. (Calories per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
1. Rice	108.5	122.4	167.3	133.2	132.7	119.8
2. Wheat	858.3	1,045.2	971.1	937.7	1,090.0	933.2
3. Chickpeas	2.3	3.8	3.2	2.5	4.1	3.0
4. Lentils	10.4	11.5	8.1	7.0	9.3	10.4
5. Dried beans	51.2	56.1	40.0	34.2	45.0	50.4
	1,030.7	1,239.0	1,189.7	1,114.6	1,281.1	1,116.8

Table 48

Consumption of protein per person. (Grams of protein per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
1. Rice	1.93	2.18	2.98	2.37	2.36	2.13
2. Wheat	20.89	25.67	23.85	23.03	26.73	23.41
3. Chickpeas	0.12	0.20	0.17	0.13	0.22	0.15
4. Lentils	0.65	0.71	0.50	0.43	0.50	0.64
5. Dried beans	3.06	3.36	2.39	2.04	2.67	3.02
	26.65	32.12	29.89	28.00	32.48	28.90

Table 49

Consumption of protein. per person. (Grams of protein per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd. aver.
6. Beef	4.47	8.13	11.99	16.70	21.50	7.93
7. Lamb	0.27	0.37	0.40	0.42	0.69	0.35
8. Pork	0.07	0.15	0.25	0.33	0.42	0.14
9. Chicken	1.06	2.12	2.73	3.28	4.33	1.83
10. Fish	0.99	1.08	0.44	1.33	2.68	1.19
11. Shellfish	0.18	0.26	1.12	0.90	1.56	0.38
	7.94	12.11	16.93	22.96	31.18	11.82

Table 50

Consumption of calories per person. (Calories per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
6. Beef	34.6	59.8	86.5	108.3	139.0	56.9
7. Lamb	4.1	5.4	5.6	5.8	9.3	5.1
8. Pork	1.5	3.0	4.7	5.6	8.1	2.8
9. Chicken	5.3	10.6	13.6	16.4	21.6	9.1
10. Fish	4.5	4.9	5.0	5.6	12.0	5.3
11. Shellfish	0.9	1.4	2.2	4.4	7.6	2.0
	50.9	85.1	117.6	146.1	197.6	81.2

Table 51

Consumption of calories per person. (Calories per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
12. Milk	65.2	104.7	134.6	169.1	220.8	98.0
13. Butter	40.0	57.3	62.5	67.6	79.7	50.6
14. Margarine	0.3	1.0	1.1	1.0	1.8	0.7
15. Eggs	13.5	17.8	24.1	28.4	25.4	17.0
16. Cooking oil	229.5	282.1	352.5	376.4	422.1	274.5
	348.5	462.9	574.8	642.1	749.8	440.8

Table 52

Consumption of protein per person. (Grams of protein per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
12. Milk	3.53	5.65	7.28	9.20	12.05	5.31
13. Butter	0.03	0.04	0.05	0.05	0.06	0.04
14. Margarine	--	--	--	--	--	--
15. Eggs	1.27	1.66	2.24	2.64	2.37	1.58
16. Cooking oil	--	--	--	--	--	--
	4.83	7.35	9.57	11.89	14.48	6.93

Table 53

Consumption of calories per person. (Calories per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
17. Onions	7.9	7.7	7.0	5.7	4.9	7.5
18. Potatoes	72.6	85.1	91.3	80.1	88.5	79.1
19. Sugar	223.6	264.8	268.8	250.9	274.6	243.3
20. Bananas	7.1	11.0	15.1	21.0	23.9	10.7
	311.2	368.6	382.2	357.7	391.9	340.6

Table 54

Consumption of protein per person. (Grams of protein per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
17. Onions	0.24	0.23	0.21	0.17	0.15	0.23
18. Potatoes	3.38	3.97	4.26	3.74	4.17	3.69
19. Sugar	--	--	--	--	--	--
20. Bananas	0.10	0.14	0.20	0.28	0.32	0.14
	3.72	4.34	4.67	4.19	4.64	4.06

Table 55

Consumption of calories per person. (Calories per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
Cereals and Legumes	1,030.7	1,239.0	1,189.7	1,114.6	1,281.1	1,116.8
Meat, Fish and Seafood	50.9	85.1	117.6	146.1	197.6	81.2
Dairy Products, Oil, Eggs	348.5	462.9	574.8	642.1	749.8	440.8
Onions, Potatoes, Sugar, Bananas	311.2	268.6	382.2	357.7	391.9	340.6
Various Products	5.7	19.4	19.7	21.5	24.6	17.6
	1,747.0	2,175.0	2,284.0	2,282.0	2,645.0	1,997.0

Table 56

Consumption of protein per person. (Grams of protein per day)

Income Strata (SV)	0-2	2-4	4-6	6-8	8 & +	Wtd.aver.
Cereals and Legumes	26.65	32.12	29.89	28.00	32.48	28.90
Meat, Fish and Seafood	7.04	12.11	16.93	22.96	31.18	11.82
Dairy Products, Oil, Eggs	4.83	7.35	9.57	11.89	14.48	6.93
Onions, Potatoes, Sugar, Bananas	3.72	4.34	4.67	4.19	4.64	4.06
Various Products	0.56	0.68	0.64	0.76	1.02	0.59
	42.80	56.60	61.70	67.80	83.80	52.30

Table 57

Increase in the contribution of calories due to greater consumption.
(In percentages)

Income Strata (SV)	0-2	2-4	4-6	6-8	Weighted average
Cereals and Legumes	10.0	3.3	5.9	3.1	5.9
Meat, Fish and Seafood	16.7	26.8	15.0	6.1	16.1
Dairy Products, Oil, Eggs	12.9	7.1	9.4	2.8	3.9
Onions, Potatoes, Sugar, Bananas	7.4	3.3	0.5	1.7	10.5
	9.6	4.8	6.2	3.0	6.7

Table 58

Increase in the contribution of protein due to greater consumption.
(In percentages)

Income Strata (SV)	0-2	2-4	4-6	6-8	Weighted average
Cereals and Legumes	8.4	3.0	4.4	3.3	5.5
Meat, Fish and Seafood	20.9	24.8	17.8	6.7	16.9
Dairy Products, Oil, Eggs	14.7	19.9	11.6	4.1	12.3
Onions, Potatoes, Sugar, Bananas	4.4	8.5	2.1	7.1	5.7
	10.8	9.4	3.4	4.4	8.9

In order to analyze in a unified way this group of tables that are only mentioned in the text, we have put together Tables 57 and 58, which show the increase in the consumption of calories and proteins that each income stratum has experienced.

It is apparent that the improvement has been general, since it has favored all the income strata. In addition, when the phenomenon is analyzed from the point of view of spending, we will see that spending is increased in real terms, without practical variation in the proportion between total spending and spending on foods, which would mean that they ate more and at the same time disposed of the same margin of income as they had previously to defray other expenses. This margin also increased in terms of their purchasing power (see the chapter on the redistribution of income).

In order to get a unified view of the variations in consumption, we have calculated the increase for each group of products. For this purpose the quantities of each individual heading will be expressed in terms of calories and proteins, since it turned out to be a homogeneous unit and was therefore easily summarized. The conversion of consumption in terms of calories and proteins, besides giving an idea of the magnitude and direction of the change, also measures the qualitative variation in the consumption of foods. This fact becomes apparent in the calculation of the consumption of proteins, which is where we see reflected the magnitude of the change in the consumption of goods such as meats, dairy products, and oils.

On the average, the increase in consumption has signified an additional caloric contribution of 6.7 percent, while for proteins the increase was 8.9 percent.

These increases manifest themselves in all the income strata. That is, there was greater consumption of goods high in protein value. However, we should not lose sight of the protein contribution of those goods whose nature is rather to produce calories, as in the case of the cereals. With this fact in mind we wish to point out the importance of the consumption of cereals and legumes, as contributors of protein, particularly in the lower income groups, where their relative importance is significant. (63.6 percent in 1968-69 and 62.3 percent in 1971.)

The increase in calories as well as in proteins was greatest in the stratum of lowest disposable income. However, it is interesting to note the difference in the rates of increase in the next-highest stratum, since the consumption of calories increased by 4.8 percent, while that of proteins increased by 9.4 percent. This was especially due to the consumption of beef (boneless meat) which increased by 40 percent in this stratum, and to the consumption of chicken, which increased by 25 percent.

The consumption of meat in the other strata was also important, especially in the stratum of 0-2 sueldos vitales, and in that of 4-6, in which the rates of increase were 27 and 28%, respectively. In the consumption of chicken, the increase in the stratum of 4 to 6 sueldos vitales was not large, reaching only 8 percent; on the other hand, in the next-lowest stratum this increase

was 38 percent. On the average the consumption of meat¹⁰ (boneless) increased by 20 percent and that of chicken by 19.2 percent.

The consumption of cereals and legumes increased in all cases, especially for the families of low income, who by this means increased their caloric and protein contribution by 10.0 percent and 8.4 percent, respectively. These percentages, which are highest under this heading, show that these products are important in popular consumption and that the level of consumption they have reached is far from the saturation point. In spite of the increases indicated, the low income families consume 489.7 kilos of bread per family each year, in contrast to the families of higher income, who consume 591.1 kilos per family in a year.

The increases that are observed in each case could lead us to make extensive comments, and therefore we consider it much more useful for the reader to make a careful study of the information presented.

We must continue to insist on the fact that the major part of the population is still deficient in calories, and only the lowest income stratum is deficient in protein. The impact of the redistribution of income effectively cut the extent of the deficit in this area, but this stratum still finds itself very poorly off as far as calories are concerned, in spite of the absolute increase that occurred.

Table 59

Income strata (SV)	Variation in calorie consumption per person (calories/day)			Variation in protein consumption per person (grams of protein/day)		
	1968/69	1971	Variation	1968/69	1971	Variation
0-2	1,593.0	1,747.0	154	38.60	42.80	4.2
2-4	2,074.0	2,175.0	101	51.70	56.60	4.9
4-6	2,149.0	2,284.0	135	56.90	61.70	4.8
6-8	2,214.0	2,282.0	68	64.90	67.80	2.9
Weighted aver.	1,871.0	1,997.0	126	48.00	52.30	4.3

Recommended: 2,390.0 calories; 46.0 grams (UPN=60) of protein.

In this consideration one has to take into account what was indicated in the previous chapter, in the sense that it would be necessary to add the contribution of calories and proteins made by the consumption of greens and fruits.

¹⁰This refers to all those cuts that have no bone, such as roasts, loin, fillet, etc. The other would be stew meat, shank, soup bone.

Under these conditions it is possible that, beginning with the stratum of 2-4 sueldos vitales, the recommended levels are reached. In no case would this be valid for the lowest income stratum, which reached a level of consumption per person of 1,747 calories per day. If we add to that a maximum of 10 percent contributed by the consumption of greens and fruits, the consumption of calories would be on the order of 1,912.7 calories per day, that is, 80 percent of the recommended level. On the other hand, where the consumption of proteins is concerned, without taking into account the contribution of greens and fruits, we have an average level that represents 93 percent of the recommended level.

C. VARIATION IN REAL SPENDING ON ESSENTIAL NUTRITIONAL GOODS BETWEEN 1970 AND 1971.

The spending of the families was calculated according to their income stratum, taking into account the quantities demanded in the period 1968-69-70, according to the Poll of Family Budgets, and then the quantities demanded as they were projected for 1971 through the elasticities of spending, taking into account the redistribution of income that took place during that period. These quantities demanded by the average family for the different income strata were valued at the average prices of the year 1970, in order to determine the increase in real spending, or in other words, to determine how much the consumption of the families actually increased between 1970 and 1971 with the redistribution of income.

The results obtained were the following:

Income strata (SV)	Demand 1970 (at average prices of 1970)	Demand 1971	Variation
0-2	4,560.09	5,140.88	12.7
2-4	6,381.64	7,192.27	12.7
4-6	7,844.27	8,590.29	9.5
6-8	9,327.59	9,856.77	5.7
8 and more ¹	12,293.02	12,293.02	--
x	6,093.07	6,723.53	10.3

¹ It was hypothetically assumed that in real terms the families of the highest income stratum of 8 and more sueldos vitales did not increase their spending on essential foods, because it was considered that their elasticity of spending was equal to 0.

The above Table shows that the policy of redistribution of income resulted in the lowest income families increasing their real spending on essential foods by 12.7 percent. This fact is also valid for the other income strata, which, with the exception of the family stratum of 2-4 sueldos vitales which grew at the same rate as the family group already mentioned, increased their consumption by 9.5 and 5.7 percent (income strata of 4 to 6 and of 6 to 8 sueldos vitales).

We should point out that on the average the real spending on essential foods increased by 10.3 percent. This large increase in demand may explain to some extent the beginning of the problems of supply which become apparent starting in 1972. Further explanation lies in the monopolizing and speculation that exist in various products. Also, the poor conditions in the market place provoked by the low domestic production of some products has contributed to a deepening of the problem. Of course the attempt has been made to lessen this distortion with imports; but in spite of this, it has not been possible to regulate the market through the normal functioning of the traditional mechanisms of distribution.

The effect of the distribution of income is apparent when we note that, in spite of the real increase in consumption that took place, the proportion of spending on essential foods in relation to disposable income and total spending diminished in relative terms. Consequently, this fact explains the increase in consumer pressure with respect to other goods, for which the elasticity of spending is certainly much greater.

Hence the disappearance of stocks of goods of industrial consumption, which were the basis on which the financiers who sold this type of goods were functioning.

As we can see in the following Table, the proportion of spending in relation to disposable income diminished in the lowest income stratum from 45.3 percent to 36.6 percent, and in relation to total spending from 27.8 percent to 25.2 percent. In the remaining income strata the decrease is not so spectacular as in the first case, but is important nevertheless.

Table 60

Income strata (SV)	Relation between spending on essential foods and disposable income. (In Escudos of 1970)		Relation between spending on essential foods and total spend- ing. (In Escudos of 1970)	
	1970 (%)	1971 (%)	1970 (%)	1971 (%)
0-2	45.3	36.6	27.8	25.2
2-4	27.5	24.1	21.3	20.3
4-6	20.8	18.4	18.5	17.5
6-8	16.5	14.2	14.6	13.5
8 & more	7.0	6.9	9.5	9.4
Weighted average	19.1	18.1	18.2	17.7