

**INSTITUTO LAUREANO FIGUEROLA  
DE HISTORIA ECONÓMICA**



**WORKING PAPER SERIES**

**Nº 05-03**

Disaggregated Productivity Growth and Technological Progress in  
the interpretation of Spanish Economic Growth, 1958-1975

M<sup>a</sup> Teresa Sanchis Llopis

April 2005

SOURCES OF LONG RUN GROWTH SERIES nº 01

<http://www.uc3m.es/uc3m/inst/LF/work.htm>

UNIVERSIDAD CARLOS III DE MADRID

C/ Madrid, 126- 28903 Getafe (Spain)

# **Disaggregated Productivity Growth and Technological Progress in the interpretation of Spanish Economic Growth, 1958-1975 \***

M<sup>a</sup> Teresa Sanchis Llopis  
Dpto Análisis Económico  
Área de Historia e Instituciones Económicas  
Universidad de Valencia  
<mailto:M.Teresa.Sanchis@uv.es>

## ***Abstract***

Spanish economic records in terms of GDP growth and convergence to European levels in the sixties, provide an excellent opportunity to look at a central question underlying in the interpretation of any process of economic growth. The relevance of industrial specific technological progress is confronted to a general and multifaceted productivity change coming from a variety of sectors and causes. This paper exploits sectoral growth accounting methodology in two different ways in order to answer this crucial question revisited recently by historiography with reference to British Industrial Revolution and to Information and Telecommunications Technologies. First, we calculate TFP growth following the Kendrick approach (1961) and using four *input-output* tables corresponding to 1958, 1962, 1970 and 1975 disaggregated at 25 productive branches. And Second, we examine the impact of electricity and electric machinery and equipment as a General Purpose Technology (GPT) in Spanish economic growth.

María Teresa Sanchis, Department of Economic Analysis, University of Valencia and Instituto Laureano Figuerola, Universidad Carlos III de Madrid. The Spanish Ministry of Education (Grant SEC 2002-01595) supports this research.

---

\* This work has been presented at the II<sup>nd</sup> Iberometrics held in Sigüenza in march 2005. Since its origin in a previous work published in the Revista de Historia Industrial in 2001, this work has enriched and evolved to a more wide vision of the economic process thanks to the comments of Leandro Prados and Joan Ramón Rosés. However, any errors are my exclusive responsibility.

## **1. Introduction**

One salient feature of the Spanish economic growth during the post-war period is that occurred in the absence of convergence to European levels until the end of the fifties but experienced a rapid catching-up since then. As a consequence, GDP per capita ran from 47% of the average of the french, german, british and italian level at 1950 to a 67% of that average in 1973<sup>1</sup>.

Spanish case seems to provide an opportunity to contrast that the catch-up was possible only when institutional conditions were favourable to technological inflows. While European countries had been experiencing a catching-up to the United States since early post-war recovery, Spain only could benefit from its relative technological backwardness after its shy but irreversible openness to Europe in 1959<sup>2</sup>.

In this sense, there are pioneering researches on the sources of Spanish economic growth during the sixties that indirectly attributed a prominent role to inflows of technological progress. But the growth process is too complex to settle on just one underlying cause of productivity growth. In this paper we make an attempt to explain the disaggregate pattern of TFP industrial growth. We try to capture that part of TFP progress linked to industrial specific technological progress and its spread to others sectors. But at the same time, to stand that productivity advance

---

<sup>1</sup> Prados de la Escosura (2003).

<sup>2</sup> Before then Spain didn't take advantage of this backwardness. Catalán, J. (2003), pp. 151, analiza el potencial de crecimiento de la economía española, dado su nivel de atraso relativo en Europa, y estima que dado el punto de partida en 1949 le hubiera correspondido crecer a un 4,44% anual entre 1949-1959 frente al 3,77 al que creció.

spilled widely and unevenly across the economy and could proceed from different sources, not only from industrial specific technological change<sup>3</sup>.

The debate on British industrial ascendancy during the first half of the 19<sup>th</sup> century offers an excellent reference to look into the sectoral dynamic of economic growth. A substantial part of the literature on this topic has been discussing whether the whole span of modernizing sectors was narrow or broad. The traditional historiography sees Industrial Revolution as broadly based, while growth accounting approaches present mixed results. The calculations run from 46% of the transformation arising outside the “modernized sectors”<sup>4</sup>, to only 9,8% or 3,6%<sup>5</sup>. In this last interpretation play a crucial role technological change in pioneering sectors (localized in cotton, iron or both of them)<sup>6</sup>, and their interindustry linkages and spillovers effects. But these effects have been considered insufficient to explain the magnitude of the transformation because interindustry linkages were limited<sup>7</sup>. In a recent paper, Oxley and Greasley (2000), adopted an intermediate position, and consider that there were a small number of common trends driving industrialization and individual industries were influenced in a variety of ways by these technological shocks. Although there were important influences coming from iron and cotton, technological progress did not originate exclusively in these sectors.

---

<sup>3</sup> Harberger (1998), considers that is *mind-set* to settle on just one underlying cause of total factor productivity growth. In this sense, he considers that modern endogenous growth models, in trying to endogenize the residual within a specified model did not represent very well the multifaceted nature of it.

<sup>4</sup> McCloskey (1981).

<sup>5</sup> Harley (1993).

<sup>6</sup> Crafts and Harley(1992), technological progress was localized in a few modern industries.

<sup>7</sup> O'Brien (1993).

In terms of Harberger<sup>8</sup> analogy between growth and a mushroom process, productivity growth tend to be highly concentrated in a relatively few industries, but these industries tend to shift from decade span to decade span. And even the sources of innovation may have been located in particular industries, TFP improvements spilled widely across the economy coming from a wide variety of sources.

Explaining the disaggregate pattern of Spanish industrial growth, we will provide evidence on the pervasiveness of productivity increases and, at the same time, we will stand out the importance of some specific industries. Those industries that embody technological progress and could spread it across the economy given the size of their interindustry transactions.

This paper uses growth-accounting in two different ways in order to provide evidence on both aspects: the pervasiveness of total factor productivity growth and at the same time, the impact of a specific technology, electricity, on Spanish economic growth. In the *second section* we use traditional growth accounting trying to capture the sectoral pattern of technological change through Total Factor Productivity (TFP). We calculate TFP growth following the Kendrick approach (1961). This approach consists on comparing output volume indexes with inputs volume indexes. For this purpose we have used a method based on the comparison of successive *input-output* tables (Pulido and Fontela(1991) and Courbis y Temple (1975)). We use four *input-output* tables corresponding to 1958, 1962, 1970 and 1975 disaggregated at 25 productive branches.

---

<sup>8</sup> Harberger (1998).

In the *third section* we attempt to examine the impact of electricity and electric machinery and equipment as a General Purpose Technology (GPT) in Spanish economic growth<sup>9</sup>. The initial impact of a GPT on overall productivity is typically minimal and the realisation of its potential may take several decades. We consider that the sixties represent in Spain the top spread of electricity technologies across the economy. We use a variant of the growth accounting methodology developed by Oliner and Sichel (2000) for USA information technologies and recently employed by Crafts for steam in British Industrial Revolution and Crafts and Mills for the British climacteric. Following this variant of growth accounting, capital is divided in two types: capital linked to electricity (installed capacity in electrical industry and machinery and equipment stock) and other types of capital.

## **2. Industry Total Factor Productivity Growth, 1958-1975.**

Spanish economy expanded rapidly with TFP rising sharply since 1958 to 1975. *Table 1* shows annual cumulative rates of change of 3,43%, 4,20% and 2,82% during 1958-1962, 1962-1970 and 1970-1975 respectively. The increasing weight of machinery and equipment industry in GDP could draw a process lead by industrial specific technological change. It is essential, however, to disaggregate estimates of economic growth to the industry level to identify the sources driving aggregate trends.

---

<sup>9</sup> A GPT can be defined as “a technology that initially has much scope for improvement and eventually comes to be widely used, to have many uses, and to have many Hicksian and technological complementarities” (Lipsey et al, 1998).

Productivity growth, the ability to produce more outputs from the same inputs, differs widely between industries. For the economy as a whole, negative productivity growth in one industry can offset positive productivity growth in another. As a result, aggregate production function can mask important differences between industries. For avoiding the limitations of an aggregate measure of productivity we decompose Spanish TFP growth by sectors for three successive periods, 1958-1962, 1962-1970 and 1970-1975. This enables us to isolate the underlying sources of productivity growth and provide a better understanding of the forces driving the general transformation.

*Table 1* reports the annual cumulative rates of growth of total factor productivity by industrial and services branches. These rates of variation of TFP are sensibly higher than those obtained in a previous work<sup>10</sup>. The new results are more consistent with output growth and similar to those obtained by other authors for a similar period. In this work annual TFP rate of growth is 4,2 per cent for the period 1962-1975, while Myro<sup>11</sup> and Suarez<sup>12</sup> obtained a rate of growth of 4,1 and 3,9 per cent respectively for 1964-1975.

---

<sup>10</sup> Sanchis (2001) carried out a similar application for sectoral TFP growth, using a "dual approach", in which variations in TFP were obtained from changes in goods prices with relation to factor prices, while output and inputs quantities were considered fixed at a base year. The calculations presented in this work have been obtained through the "primal approach", in which output and inputs prices stay constant along the whole period, while changes in output and input quantities are computed. In theory, these two approaches should give similar results under the assumptions of perfectly competitive markets of goods and factors. However, markets are not perfectly competitive and the changes in prices don't use to pick up overall productivity increases. Therefore the "dual approach" tends to undervalue productivity growth in front of the computation of the "primal approach". In this work we follow the primal approach.

<sup>11</sup> Myro (1983).

<sup>12</sup> Suarez (1992).

The aggregate TFP rate of growth is obtained as a weighted average of industry productivity growth rates. Each sector is pondered according to its participation in total output of any base year: 1958 for 1958-1962, 1962 for 1962-1970 and 1970 for 1970-1975. It is observed that the highest rates of growth corresponded to the industry (6,2 %) during the period 1962-1970. Gandoy(1988) carried out estimates of the global productivity for 28 industrial branches during the period 1964-1974, reaching a similar result (6,5% for total industry).

The results show the importance of high technology industries like machinery, motor vehicles and transportation equipment, chemical products and electric utilities which grew rapidly in both output and productivity. It's also highlighting the productivity advance in communications, industries derived from paper and "miscellaneous manufacturing". The last one includes industries very different, which combine traditional industries to industries linked to technical change as apparatuses of precision. The result is an increase in productivity that is above the average growth of total industry. Slowly growing sectors include the most part of services, food and tobacco products, textiles and apparel which show below-average output growth and low or even negative productivity growth.

The results presented in *table 1* also highlight the wide variation among industries. The growth rate of total output ranges from 1,5 in railroads to 23 percent in motor vehicles and transportation equipment in 1958-1962, from 0,5 in railroads to 20 percent in rubber and plastics during the second period and from 1,12 in electricity, gas and water to 11 percent in industrial machinery and equipment.

**Table 1. TFP growth by sector, 1958-1975**

(Annual rates of variation, in %)

	1958-1962		1962-1970		1970-1975	
	TFP	OUTPUT	TFP	OUTPUT	TFP	OUTPUT
Energy, unless electricity	1,58	18,09	9,61	16,08	5,70	8,49
Electricity, gas and water	7,80	10,27	11,72	18,30	1,64	1,12
Metal and non-metallic mining	2,28	3,43	7,52	8,28	8,16	3,02
Primary transformation of metals	5,60	17,25	3,49	11,21	1,28	1,76
Nonmetallic minerals industry	8,54	14,84	9,41	15,84	4,31	9,56
Chemical industries	9,52	16,77	6,58	13,06	2,06	6,45
Industrial machinery and equipment	14,25	19,29	10,01	17,24	3,91	11,06
Transport equipment	10,57	22,93	7,05	14,37	4,04	12,89
Food and tobacco products	2,25	7,97	2,11	7,38	0,75	4,76
Textil Mill Products	6,37	20,48	2,88	3,35	1,84	1,94
Apparel and show	-4,28	6,36	2,54	11,02	2,03	3,49
Lumber, wood and furnitures	-0,15	3,43	7,10	11,41	3,45	4,90
Paper products, printing and publishing	5,85	15,73	7,70	14,32	5,11	11,44
Rubber and plastic	1,96	39,50	16,21	20,81	3,42	5,81
Miscellaneous manufacturing	4,17	23,67	5,38	8,22	6,95	14,88
Construction	1,94	8,31	-1,28	10,02	5,17	12,41
Trade	4,07	6,63	3,65	5,76	1,95	7,07
Hotels, restaurants and bars	-1,53	13,93	1,56	14,88	2,27	4,45
Railroad transport	1,50	1,50	4,61	0,54	7,47	2,18
Land transport	-4,22	6,67	7,31	10,05	2,67	4,45
Sea transport	3,28	8,29	6,91	10,74	5,08	3,97
Air transport	-6,59	21,73	-1,43	23,11	6,16	4,03
Communications	4,23	13,20	1,06	6,74	8,27	10,64
Financial services	1,54	3,85	-13,65	2,76	5,32	6,68
<b>INDUSTRY</b>	<b>4,92</b>	<b>13,50</b>	<b>6,20</b>	<b>12,14</b>	<b>2,88</b>	<b>6,77</b>
<b>SERVICES</b>	<b>1,41</b>	<b>6,92</b>	<b>2,23</b>	<b>8,97</b>	<b>3,08</b>	<b>5,06</b>
<b>TOTAL OUTPUT</b>	<b>3,43</b>	<b>11,28</b>	<b>4,20</b>	<b>10,09</b>	<b>2,82</b>	<b>6,40</b>

*Notes:* Spanish Input-output tables for 1958, 1962, 1970 and 1975 are used for calculations. (a) TFP growth is calculated following the Kendrick (1961) approach taking input-output information (Pulido y Fontela(1993)). (b) OUTPUT growth is the average annual growth in gross output (intermediate plus final output). (c) Total output aggregation according to the ratio of industry gross output to aggregate total output for any benchmark year (1958 for 1958-1962, 1962 for 1962-1970, and 1970 for 1970-1975).

This is not surprising since these industries produce different outputs, face changing consumer and business demands, and respond differently to evolving technologies. Similarly, productivity growth ranges from -6,5 in financial services to

14 percent in industrial machinery and equipment in 1958-1962, from -13 in financial services to 16 percent in rubber and plastics in 1962-1970, and from 0,75 in food and tobacco industries to 8,25 percent in communications services in the last period.

The interpretation of aggregate TFP growth is complex when it reflects such disparate trends within industries. We observe also that some industries experience negative productivity growth. Some of these are declining industries like “apparel and shod” or “lumber, wood and furnitures”, but others include new fast growing sectors like land and air transport services. The most striking fact is that most industries and services present positive TFP growth along the whole period, and aggregate TFP growth comes from either sector of the economy but within a wide range of variation.

## **2.2. Interpreting economic growth: “*Yeast versus mushrooms*”.**

In tables 2, 3 and 4<sup>13</sup> we try to represent the degree of concentration of TFP improvements. Column (1) presents the measure of the percentage by which TFP grew during the successive periods (the percentages apply to each period as a whole; they are not annual rates). Industries are ordered in decreasing order in terms of annual TFP rates of growth. In column (3), to turn these percentages in pesetas of TFP gains, one multiplies them by each base period real total output. In the

---

<sup>13</sup> This tables are built following Harberger(1998), table 2, pp.5.

following columns the cumulative sums of total output and TFP are expressed in millions of pesetas (columns 4 and 5) and in percentages (6 and 7).

Following the analogy of Harberger<sup>14</sup>, “yeast versus mushrooms” in interpreting economic growth, the results of our calculations could point to a “mushroom” interpretation: “This analogy comes from the fact that yeast causes bread to expand very evenly, like a balloon being filled with air, while mushrooms have the habit of popping up in a fashion that is not easy to predict”. A “mushroom” process fits more readily with a vision such as that emerging of our results, in which TFP increases stem from different sectors and causes, although we can observe a tendency to TFP improvements to concentrate in a few industries. For 1958-1962, the top 14 percent of industries account for 47 percent of total TFP increase, for 1962-1970, 16 percent of industries explains 53 percent of TFP increase and for the last subperiod the percentages were 26 to 53 percent. For 75 percent of TFP increase, total output concentration still remain high: 36 percent, 28 percent and 50 percent respectively in each subperiod.

Not only were the contributions to TFP increase very concentrated in a relatively few industries, these industries are also very different when one shifted from one period to another. But, it's possible to find certain degree of persistence among the group of leaders in TFP improvements. Among the top 50 percent of TFP increase stayed during the first and the second periods: "machinery and equipment industry", "electricity, gas and water", "material of transport" and "rubber and

---

<sup>14</sup> Harberger (1998), pp. 4.

plastics industry". If one considers 75 percent of the transformation, "miscellaneous manufactures", "chemical industry" and "communications" could be added to the group.

The persistence during the first two periods of those industries among the leader group in TFP improvements brings evidence in favour of the hypothesis that technological change was a central element in global modernization. The external effects derived from the incorporation of new technologies are not exhausted in a single period, and they caused a high correlation between the residual and the persistence of high rates of output and productivity growth in the following periods and to the rest of sectors. Along these years, technological change was linked to the diffusion of electric machinery and their appliances, to the automobile industry and linked industries and to new communications (telephony and television)<sup>15</sup>. The image that could emerge of these results would be that of a "mushroom process" among industries, in which the challenge for particular industries to experiencing a rapid TFP growth depended on the technological gap they maintained with the most advanced countries<sup>16</sup>. The new technology would spread almost evenly among the firms of the sector along a relatively wide period.

---

<sup>15</sup>Along the sixties, simultaneously several sectors were leading the Spanish "catching-up" process. Spain incorporated the technologies developed in the leader country, the United States along several decades. According to Harberger(1998) the general impression is the 1920's are the decade of cars and the rubber industry, the 1930's the decade of refrigerators, the 1940's that of pharmaceutical products and the 1950's that of television. Part of European growth after the Second World War has been attributed to technological convergence with the United States, (Crafts and Tonniolo(1996)). Spain had a wide technological gap in several industries with a diverse range of technologies.

<sup>16</sup> Crafts and Tonniolo (1996), Europe experiences a technological "catch-up" to the United States after the Second World War, based on the development of technologies linked to the consumption of electricity and petroleum that United States had developed during the interwar years.

Although the findings here place some industries at the heart of the transformation, it does not follow, that technological progress was localized in a few modern industries. Evidence tells us a more complex story. In spite of the high concentration of the transformation, one can observe that 93 percent of total output in the first subperiod, 91 percent in the second and 100 percent in the last subperiod experienced positive TFP increases. It's difficult to believe that industry interdependence through input-output transactions or technological spillovers linked the leader sectors account for the global transformation. As we will see in the next section interrelationships among specific leading industries and the rest of the economy were limited and declining. The complexities of disaggregate industrial growth records suggest that individual industries were influenced in a variety of ways by technological changes or other sources that cause TFP improvements, like organizational changes, scale economies linked to the increase in demand, access to abroad markets of goods and factors,...

**TABLE 2.- Concentration of TFP Growth Among Spanish Industries, 1958-1962**  
**(1958 millions pesetas)**

	TFP Growth over period (1.0=100)	TOTAL OUTPUT 1958 millions ptas	TFP ABSOLUT INCREASE (1)?(2) millions ptas	CUMULATIVE SUM OF OUTPUT 1958	CUMULATIVE SUM OF TFP INCREASE 1958 to 1962	CUMULATIVE SUM OF OUTPUT (in %)	CUMUL. SUM OF TFP (in %)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Industrial machinery and equipment	0,70	39859,0	28059,3	39859,0	28059,3	0,04	0,20
Transport equipment	0,49	28025,9	13868,9	67884,9	41928,3	0,07	0,29
Chemical industries	0,44	34241,7	15027,1	102126,6	56955,4	0,11	0,40
Nonmetallic minerals industries	0,39	12240,2	4750,3	114366,8	61705,7	0,12	0,43
Electricity, gas and water	0,35	17131,0	6002,1	131497,8	67707,8	0,14	0,47
Textil industries	0,28	54362,2	15238,0	185860,0	82945,8	0,20	0,58
Paper products, printing and publishing	0,26	14938,5	3813,2	200798,5	86758,9	0,22	0,61
Primary transformation of metals	0,24	38189,3	9304,8	238987,8	96063,7	0,26	0,67
Communications	0,18	4603,5	828,9	243591,3	96892,6	0,26	0,68
Miscellaneous manufacturing	0,18	6680,1	1186,1	250271,4	98078,7	0,27	0,69
Trade	0,17	79870,3	13832,7	330141,7	111911,4	0,36	0,78
Sea Transport	0,14	8518,2	1174,7	338659,9	113086,0	0,37	0,79
Metal and non-metallic mining	0,09	6413,4	604,1	345073,3	113690,1	0,37	0,80
Food and tobacco products	0,09	149155,6	13914,4	494228,9	127604,6	0,53	0,89
Agricultura	0,09	203806,4	18759,3	698035,3	146363,9	0,75	1,02
Rubber and plastic industries	0,08	3718,4	301,0	701753,7	146664,9	0,76	1,03
Construction	0,08	57318,3	4581,1	759072,0	151245,9	0,82	1,06
Energy, unless electricity	0,06	14292,7	924,7	773364,7	152170,7	0,84	1,07
Financial services	0,06	30837,2	1938,1	804201,9	154108,8	0,87	1,08
Railroads transports	0,06	12548,4	769,9	816750,3	154878,7	0,88	1,08
Lumber, wood and furnitures	-0,01	22132,1	-133,8	838882,4	154744,9	0,91	1,08
Hotels, restaurants and cofees	-0,06	19396,1	-1163,7	858278,5	153581,1	0,93	1,08
Land transports	-0,16	31811,1	-5040,3	890089,6	148540,9	0,96	1,04
Apparel and show	-0,16	33731,2	-5417,6	923820,8	143123,3	1,00	1,00
Air transport	-0,24	1172,2	-279,7	924993,0	142843,6	1,00	1,00

**TABLE 3.- Concentration of TFP Growth Among Spanish Industries,, 1962-1970**  
**(1962 millions pesetas)**

	TFP Growth over period (1.0=100)	TOTAL OUTPUT 1962 Millions ptas	TFP ABSOLUTE INCREASE (1)?(2)	CUMULATIVE SUM OF OUTPUT 1962	CUMULATIVE SUM OF TFP INCREASE 1962 to 1970	CUMULATIVE SUM OF OUTPUT (in %)	CUMULT SUM OF TFP (in %)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rubber and plastic industries	2,33	15493,8	36043,7	15493,8	36043,7	0,01	0,07
Electricity, gas and water	1,43	23766,3	33909,1	39260,1	69952,8	0,03	0,14
Industrial machinery and equipment	1,15	60307,3	69054,6	99567,4	139007,4	0,07	0,29
Energy, unless electricity	1,08	30433,7	32976,7	130001,1	171984,1	0,09	0,35
Nonmetallic minerals industries	1,05	19419,9	20443,5	149421,0	192427,6	0,10	0,40
Paper, printing and publishing	0,81	26210,5	21220,4	175631,5	213648,0	0,12	0,44
Metal and non-metallic mining	0,79	8302,5	6529,0	183934,0	220176,9	0,12	0,45
Land transports	0,76	48774	37010,9	232708,0	257187,8	0,16	0,53
Lumber, Wood and furnitures	0,73	30315,8	22173,2	263023,8	279361,0	0,18	0,57
Transport equipment	0,72	55146,5	39948,0	318170,3	319309,0	0,21	0,66
Sea transport	0,71	11822,2	8348,3	329992,5	327657,3	0,22	0,67
Chemical industries	0,66	53377,2	35469,9	383369,7	363127,2	0,26	0,75
Miscellaneous manufacturing	0,52	16877,1	8791,4	400246,8	371918,7	0,27	0,76
Railroad transports	0,43	15087,1	6549,1	415333,9	378467,8	0,28	0,78
Trade	0,33	121660,3	40441,6	536994,2	418909,4	0,36	0,86
Primary transformation of metals	0,32	72841	23024,9	609835,2	441934,3	0,41	0,91
Textil industry	0,25	103495,1	26360,1	713330,3	468294,4	0,48	0,96
Apparel and show	0,22	51286,9	11383,2	764617,2	479677,6	0,51	0,99
Food and tobacco products	0,18	219063,2	39738,3	983680,4	519415,9	0,66	1,07
Hotels, restaurants and cafes	0,13	39946	5281,1	1023626,4	524697,0	0,69	1,08
Communications	0,09	8846,05	780,5	1032472,5	525477,6	0,69	1,08
Agriculture and fishing	-0,01	330692,7	-1859,4	1363165,2	523618,1	0,91	1,08
Construction	-0,10	84670,3	-8275,4	1447835,5	515342,7	0,97	1,06
Air transport	-0,11	2957,3	-322,5	1450792,8	515020,2	0,97	1,06
Financial services	-0,69	41183,1	-28452,6	1491975,9	486567,7	1,00	1,00

**TABLE 4.- Concentration of TFP Growth Among Spanish Industries, 1970-1975**  
**(1970 millions pesetas)**

	TFP Growth over period (1.0=100)	TOTAL OUTPUT 1970	TFP	CUMULATIVE	CUMULATIVE	CUMULATIVE SUM OF OUTPUT (in %)	CUMULATIVE SUM OF TFP (in %)
			ABSOLUTE INCREASE (1)X(2)	SUM OF OUTPUT 1970	SUM OF TFP INCREASE 1970 to 1975		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Communications	0,49	27431	13389,9	27431,0	13389,9	0,01	0,02
Metal and non-metallic mining	0,48	24807	11918,2	52238,0	25308,1	0,01	0,04
Railroads Transports	0,43	20244	8772,2	72482,0	34080,4	0,02	0,06
Miscellaneous manufacturing	0,40	35284	14095,1	107766,0	48175,5	0,03	0,08
Air Transports	0,35	28137	9810,2	135903,0	57985,7	0,03	0,10
Energy, unless electricity	0,32	115654	36952,2	251557,0	94937,9	0,06	0,16
Financial services	0,30	121843	36062,5	373400,0	131000,4	0,09	0,22
Construction	0,29	317991	91106,1	691391,0	222106,5	0,17	0,38
Paper, printing and publishing	0,28	96871	27388,6	788262,0	249495,0	0,19	0,43
Sea Transport	0,28	30874	8671,6	819136,0	258166,6	0,20	0,44
Nonmetallic minerals industries	0,23	78544	18442,9	897680,0	276609,6	0,22	0,47
Transport equipment	0,22	166835	36504,0	1064515,0	313113,5	0,26	0,53
Industrial machinery and equipment	0,21	257637	54524,1	1322152,0	367637,6	0,32	0,63
Lumber, wood and furniture	0,18	81410	15039,5	1403562,0	382677,1	0,34	0,65
Rubber and plastic industries	0,18	67388	12357,7	1470950,0	395034,8	0,36	0,67
Land transport	0,14	156897	22082,0	1627847,0	417116,8	0,40	0,71
Hotels, restaurants and cafes	0,12	215761	25593,6	1843608,0	442710,4	0,45	0,76
Chemical industries	0,11	187686	20167,7	2031294,0	462878,1	0,50	0,79
Apparel and shoe	0,11	165297	17507,0	2196591,0	480385,1	0,54	0,82
Trade	0,10	349725	35469,1	2546316,0	515854,2	0,62	0,88
Textile industries	0,10	147829	14121,4	2694145,0	529975,6	0,66	0,90
Electricity, gas and water	0,08	111105	9407,0	2805250,0	539382,6	0,68	0,92
Primary transformation of metals	0,07	239471	15687,3	3044721,0	555069,9	0,74	0,95
Food and tobacco products	0,04	519125	19874,0	3563846,0	574943,9	0,87	0,98
Agriculture and fishing	0,02	538875	10674,0	4102721,0	585617,9	1,00	1,00

### **3. Electricity and Electrical Machinery and Equipment as a General Purpose Technology, 1958-1975**

In recent years there has been an upsurge of interest among economist in General Purpose Technologies (GPTs). These are defined as “a technology that initially has much scope for improvement and eventually comes to be widely used, to have many uses, and to have many Hicksian and technological complementarities<sup>17</sup>”. Electricity is among the most important examples. These Technologies imply that the growth process may be subject to episodes of sharp acceleration and deceleration. Their initial impact on overall productivity growth is minimal and the realisation of their potential may take several decades.

In the previous section we have underlined the high contribution of a few group of industries like electricity, machinery and equipment, transport equipment or chemistry in the explanation of the aggregate TFP increase. Among these industries, the production of electricity and machinery and equipment industry could be linked to what we have called GPTs. In this section we will attempt to examine the impact of electricity on Spanish economic growth.

There are several reasons to draw our attention on electricity. First, electricity together with petroleum were consolidated as hegemonic energies in Spain during the fifties and the sixties. Second, the consumption of electricity can be linked to capital deepening in the rest of the economy. The acquisition of electric machinery and equipment was the way of embodying new technologies. And third, the high rates of electricity and machinery and equipment TFP growth put them between the leader sectors.

---

<sup>17</sup> Lipsey et al (1998), pag. 43.

This work uses growth-accounting to assess the contribution of electricity to overall transformation. In particular, it is of interest to ask whether there is evidence of an electricity-driven transformation. We explore the argument by examining electricity's impact as a proximate cause of GDP *per capita* growth. We follow a similar method to those recently employed in evaluating the contribution of Information and Communications Technologies to recent American productivity growth<sup>18</sup> and the contribution of Steam Technologies to British Industrial Revolution<sup>19</sup> and climacteric<sup>20</sup>. This methodology can identify the contributions to the growth of output *per capita* coming from capital deepening and from technological progress in the provision and application of electricity, using appropriate weights to reflect the relative importance of capital in electrical machinery and in the provision of electricity.

With the Standard Cobb-Douglas production function and under competitive assumptions, the Solow residual is computed as:

$$\Delta A/A = \Delta Y/Y - s_k \Delta K/K - s_l \Delta L/L \quad [1]$$

where  $s_k$  y  $s_l$  are the income shares of capital and labour respectively. A straightforward generalization of this is used by Oliner and Sichel (2000) which features different varieties of capital. In this work the contribution of innovations in electricity is captured through two components<sup>21</sup>: additional capital inputs ( $K_e$ ) and extra TFP growth ( $A_{elec}$ ). For this purpose we distinguish two kinds of electrical capital ( $K_e$ ): electrical machinery and equipment and electrical capacity installed, whose growth contributions are weighted by their shares in

---

<sup>18</sup> Oliner and Sichel (2000).

<sup>19</sup> Crafts (2004).

<sup>20</sup> Crafts and Mills (2004)

income. By the same way, the contribution of innovations in electricity ( $A_{elec}$ ) is captured through two components: TFP growth linked to the production of electrical machinery and equipment and TFP linked to the production of electricity, both weighted by their output shares, as part of the overall residual. Thus the growth accounting equation is written as:

$$\begin{aligned} & \Delta Y/Y = s_L \Delta L/L + s_{k_0} \Delta K_0/K_0 + s_{K_e} \Delta K_e/K_e \\ & + \Delta A/A_{elec} + \Delta A/A_{no\text{-}elec} \end{aligned} \quad [2]$$

Where the subscript “ $o$ ” indicates other capital, the subscript “ $e$ ” indicates electrical capital, the subscript  $elec$  indicates electrical manufactures (electrical machinery and equipment plus production of electricity), and  $non-elec$  the rest of the economy, while  $\Delta$  and  $\Delta$  are the gross output of these sectors as a share of total output<sup>22</sup>.

Table 5 displays the estimates of TFP growth of table 1 combined with the contributions of the two types of electrical capital into a consolidate aggregate. The overall machinery and equipment effect ( $I+2$ ) is estimated to have been 1,14 percentage points per year in 1958-1962, 0,89 in 1962-1970 and 0,55 in 1970-1975. This contribution comes from TFP growth in machinery and equipment production (1) and from the adquisition of new electrical capital by the rest of sectors (2).

---

<sup>21</sup> We take this decomposition from Crafts (2002) estimation of electricity impact in U.S. 1920's economic growth.

<sup>22</sup> There are so-called Domar weights which sum to greater than 1. For an algebraic justification of this procedure see Hulten (1978).

**TABLE 5.- Electricity Contribution to Growth  
In Spain, 1958-1975**

	1958-1962	1962-1970	1970-1975
1.1. TFP Growth in Machinery and Equipment	14,25	10,01	3,91
1.2. Output Share	0,04	0,04	0,05
<b><i>1. TFP contribution of Machinery and equipment</i></b>	<b>0,57</b>	<b>0,36</b>	<b>0,20</b>
2.1. Capital Stock Growth in machinery and equipment	14,25	8,75	5,55
2.2. Income Share	0,04	0,06	0,06
<b><i>2. Capital Deepening Contribution of Machinery and Equipment</i></b>	<b>0,57</b>	<b>0,53</b>	<b>0,33</b>
3.1.TFP Growth of Electrical Power Industry	7,80	11,72	1,64
3.2. Output Share	0,04	0,02	0,02
<b><i>3.TFP Contribution of Electrical Power Industry</i></b>	<b>0,31</b>	<b>0,21</b>	<b>0,03</b>
4.1. Capital Stock Growth in Electrical Capacity	2,66	10,35	7,28
4.2. Income Share (1958,1962,1970)	0,02	0,02	0,02
<b><i>4.Capital Deepening Contribuition of Electric Power Industry</i></b>	<b>0,05</b>	<b>0,22</b>	<b>0,16</b>
Total Electricity Contribution (1+2+3+4)	1,51	1,31	0,72
GDP growth (%)	6,32	7,32	5,31
Total Electricity Contribution (as % GDP growth)	23,82	17,95	13,59

NOTE: Per cent.

SOURCES: (1) Electrical Machinery and equipment TFP growth is assumed to be equivalent to "Total Machinery and equipment industry". Domar-weights are used as is habitual in the literature on GPTs. (2) The machinery and equipment stock of capital growth from National Accounts. This component is weighted by the share of machinery and equipment in total capital weighted by the share of capital in income. (3) Electrical power industry TFP growth corresponds to "electricity, gas and water". (4) For capital stock growth in the production and distribution of electricity we take the increase in capacity in electric power stations valued in KVA, published in the Statistical Annals of INE. The weight of electric industries in total capital stock is obtained from the stock of capital by sectors published by BBV.

Thus the innovations of electricity could have impacts on growth both through an embodied capital-deepening effect (1+2) and through disembodied TFP growth (not computed separately). The spillovers resulted from the widespread adoption of electric unit drive, are generally thought to have been substantial during the productivity growth linked to the diffusion of electricity. They consist on substantial improvements in factory design and associated capital saving, the achievement of which is based on learning externalities. This effect hasn't been captured in our computations and we consider it would be part of the TFP increase of any particular industry that adopted electrical technologies.

The contribution of electric power industry to GDP per capita growth is presented in rows 3 and 4. Row 3 reports TFP growth of the electric industry, and row 4 the increase in the stock of capital linked to the production of electric power.

A high contribution of electricals to GDP growth is observed in the period 1958-1962, (23 percent). This was the result of the TFP growth of machinery and equipment industry(7%), plus the incorporation of electrical machinery and equipment by other industries (9%), plus the TFP growth of electrical power industry (5%) and the increase of the capacity installed in the electric sector (1%). Like it can be noticed, the improvements derive almost similarly from higher efficiency in the two sectors(13%) and from the deepening in the stock of capital linked to the production, distribution and application of electricity (10%).

Taken at face value in the following subperiods the message of Table 5 is quite clear: electricity impact on economic growth was noticeable but decreasing during the whole period considered. From 23 per cent of GDP growth at 1958-1962, it decreased to 17,95 in 1962-1970 and to 13,59 per cent in 1970-1975. At the same time, in terms of its impact on the

annual rate of productivity growth through capital-deepening and own TFP growth electricity had a decreasing impact through TFP improvements. This contribution to GDP growth decreased to 8 per cent in 1962-1970 and to 4 per cent in 1970-1975, while the capital-deepening contributions were of 10 and 9 per cent respectively. These results suggest that once incorporated technological change in the production of machinery and electrical power, the widespread of new technologies through capital-deepening became the main force of the transformation.

These records are not worthless, although are slightly below those obtained by Crafts for U.S. economy during 1920's for electricity. Possibly Spanish economy was experiencing the top realisation of electricity potential at the ending of the fifties and the beginning of the sixties, after two decades of stagnation in the diffusion of electricity and its applications.

It is possible that a higher opening to foreign markets since 1959 facilitated the access to modern machinery and equipment and offered new opportunities for the renovation and modernization of the capital stock. Electricity, among other technologies, was clearly favoured in this process. But investment in machinery and the improvements in productivity in the industry of producer goods wouldn't have been possible if there had not been any previous increase in the power capacity installed. External inflows of capital goods were preceded since the second half of the fifties by a strong rhythm of electric power stations construction. This increase became evident after a painful energetic situation in 1940's<sup>23</sup>. The restrictions in the electricity supply began to take place in 1944 and they lasted until 1954. The electric power stations built before the war didn't have any incentive to increase the

---

<sup>23</sup> Sudrià (1987), pag. 332 considers "painfull" the Spanish energetical situation during 1940's and part of the 1950's..

installed power, for the drops of electric tariffs and for difficulties to import inputs and equipment for these stations.

The change in the rhythm of construction of new electric power stations was linked to relationships to abroad, mainly to the American help that was materialized in imports of material for the electricity production<sup>24</sup>, and also to the change in the industrial legislation, especially with reference to the establishment of new electric rates in 1953<sup>25</sup>. Starting then a very remarkable expansion of the installed power was observed and continued at a very high rhythm along the sixties (10,35 % yearly).

Along the whole period, the electricity impact on GDP growth was decreasing, while GDP was well-sustained through till 1975. These results reinforced the point highlighted in the previous section that the impetus to growth came from several sources at the same time and was not exclusively related to any industrial specific technological change, although some industries, like electrical goods, had a noticeable role. The decreasing contribution to growth of electricity is compatible with the results showed in tables 2, 3 and 4. The industries with a positive contributions increased along the tree successive subperiods and almost sectors experienced a positive productivity growth.

---

<sup>24</sup> Calvo (1999).

<sup>25</sup> Sudrià (1987).

#### **4. Conclusions**

The performance of the Spanish economy in the sixties has been nothing short of phenomenal. After two decades of economic stagnation and divergence to European levels, accelerating total factor productivity growth and capital deepening led to a remarkable growth resurgence.

The results of our calculations using the Kendrick approach for TFP reveals a tendency to TFP growth concentration in a few industrial branches and a high degree of persistence among the leader industries. Electricity and machinery and equipment industries were in this group. The GPT approach corroborates the importance of these two branches in the interpretation of general economy transformation. These industries, that jointly represented 8% of total output in 1958, could explain 24 % of GDP growth in the period 1958-1962. Their contribution decreased to 18% and 13,6% at the two following periods. These results allow us to make some assertions about the significant but limited role played by these specific industries in general progress. Following Harberger analogy, these specific industries are part of a “mushrooms process”. They had the chance to fill in their technological gap with the technological leader and could grow faster than others and widespread their improvements through the rest of the economy. Possibly other industries made the same through the embodiment of other kinds of technological change, as was the case of equipment of transport, chemicals, rubbers, communications, etc...

The application of GPT's methodology to electricity gives us clear but modest results. It allows us to identify a source of technological progress that located in particular industries spilled widely across the economy through capital-deepening. But part of the bottle remains

unfilled. Table 1 tells us how to fill it. Although the finding here place some industries at the heart of the transformation because of its rapid TFP growth and its high contribution to overall transformation, it does not follow that technological progress was localized in a few modern industries. The existence of a wide number of industries with high TFP growth, jointly with the renovation in each subperiod of an important part of the group of top 50 percent of TFP increase, suggest several technological waves spreading across the Spanish economy among the whole period. And possibly individual industries were influenced in a variety of ways by these technological changes.

## References

- Barciela, C.(ed.)(2003), *Autarquía y mercado negro. El fracaso económico del primer franquismo, 1939-1959*, Barcelona, Ed. Crítica.
- Buesa, M.(1986), “Política industrial y desarrollo del sector eléctrico en España, (1940-1963)”, *Información Comercial Española*, junio, pp. 121-135.
- Calvo, O. (2001), “¡Bienvenido Mr. Marshall! La ayuda económica americana y la economía española en la década de 1950”, *Revista de Historia Económica*, vol. XIX, número extraordinario.
- Catalán, J.(2003), “La reconstrucción franquista y la experiencia de Europa”, cap. 5, en C. Barciela (ed.).
- Courbis, R. y Templé, P. (1975): *La méthode des comptes de surplus et ses applications macroéconomiques*, INSEE, serie C, núm. 35, París.
- Crafts, N. (2002), “The Solow Productivity Paradox in Historical Perspective”, CPER Discussion Paper, No. 3142, Jannuary.
- Crafts, N. (2004), “Steam as a General Purpose Technology: A Growth Accounting Perspive”, *The Economic Journal*, 114(april) pp. 338-351.
- Crafts, N. and N. Harley C.K. (1992), “Output Growth and the British Industrial Revolution”, *Economic History Review* 45, pp. 703-730.
- Crats, N. and Mills, T. (2004), “Was 19<sup>th</sup> century British growth steam-powered?: the climacteric revisited”, *Explorations in Economic History* 41, pp. 156-171.
- Crafts, N. Y G. Toniolo (1996), “Postwar growth: an overview”, en Crafts, N. y G. Toniolo (eds), cap. 1, pp.1-37.
- Crafts,N. Y G.Toniolo (1996)*Economic Growth in Europe since 1945*, Center for Economic Policy Research, Cambridge, Cambridge University Press.

- Hulten, C. (1978) "Growth accounting with intermediate inputs", *Review of Economic Studies*, vol 45, pp. 511-518.
- Gandoy, R.(1987) "Producción y productividad en la industria española, 1964-1981", *economía Industrial* , nº 256, pp. 33-46.
- (1988): *Evolución de la productividad global de la economía española. Un análisis desagregado*, Tesis Doctoral, Universidad Complutense de Madrid, Facultad de Ciencias Económicas y Empresariales, Madrid.
- Harberger, A. (1998), "A Vision fo the Growth Process", *The American Economic Review*, pp.1-32, march.
- Harley, C.K.(1993), "Reassessing the Industrial Revolution: A Macro View", J. Mokyr (ed), *The British Industrial Revolution: An Economic Perspective*. Boulder CO: Westview.
- Hulten, C. (1978), "Growth accounting with intermediate inputs", *Review of Economic Studies*, vol. 45, pp. 511-518.
- Jorgenson, D.W. y Z. Griliches (1967), "The explanation of productivity change", *Review of Economic Studies*, 34(3), pp. 245-284.
- Jorgenson, Gollop y Fraumeni (1987), *Productivity and US economic Growth*, Cambridge, MA: Harvard University Press.
- Lipsey, R.G., Bekar, C. and Carlaw, K.(1998), "What requires explanation?", in (E. Helpman ,ed.) *General Purpose Technologies and Economic Growth*, pp. 15-54, Cambridge, MA: MIT Press.
- McCloskey, D.N.(1998), "Bourgeois Virtud and the History of P and S", *Journal of Economic History*, 58, pp. 297-317.
- Myro, R.(1983), "La evolución de la productividad global de la economía española en el período 1965-1981", *Información Comercial Española*, febrero, pp. 115-127.
- Nadal, J., Carreras, A. y Sudrià, C. (1987), *La economía española en el siglo XX. Una perspectiva histórica*, Ariel, Barcelona.
- O'Brian P.K. (1993), "Introduction: Modern Conception of the Industrial Revolution" in P.K. O'Brian and Quinault (eds) *The Industrial Revolution and British Society*, Cambridge, Cambridge University Press.
- Oliner, S.D. and Sichel, D.E.(2000), "The resurgence of growth in the late 1990's: is information technology the story?", *Journal of Economic Perspectives*, vol. 14(4), pp. 3-22.
- Prados de la Escosura, L. y J. Sanz(1996), "Growth and macroeconomic performance in Spain, 1939-93", en Crafts, N. y G. Toniolo, capítulo 12, pag. 355-387.
- Prados de la Escosura, L. (2003), *El progreso económico de España*, Fundación BBVA, Madrid.
- Pulido, A. y E. Fontela (1993): *Análisis cuantitativo input-output*, Madrid, Pirámide.
- Sanchis, M.T. (2001), "Transferencias intersectoriales de productividad y crecimiento en la economía española, 1958-1975", *Revista de Historia Industrial*.
- Sudrià, C. (1987) , "Un factor determinante: La energía", cap.12, pp.313-363, en Nadal, Carreras y Sudrià (1987).
- Suárez, F.J. (1992), "Economías de escala, poder de mercado y externalidades: medición de las fuentes del crecimiento español", *Investigaciones Económicas* (Segunda Época), vol XVI, nº 3, pp. 411-441.

## Statistical sources

Confederación Española de Cajas de Ahorro (1979), "La estructura productiva española. Tabla input-output de 1975 y análisis de la interdependencia de la economía española en el siglo XX", Fondo para la Investigación Económica y Social de las Cajas de Ahorro Confederadas.

- Dirección General de Aduanas, *Estadística del Comercio Exterior de España*, several years, Madrid.
- Instituto Nacional de Estadística (1960), *Indice de Precios al por Mayor. Nuevo sistema de números índice, año 1955=100*, Madrid.
- Instituto Nacional de Estadística (varios años), *Boletín Mensual de Estadística*, años 1963 a 1972, Madrid.
- Instituto Nacional de Estadística (1961), *Boletín de Estadística*, noviembre, nº 203, Madrid.
- Instituto Nacional de Estadística (1973): *Contabilidad Nacional de España. Años 1964 a 1971 y avance de 1972*, Madrid.
- Instituto Nacional de Estadística (1992): *Contabilidad Nacional de España. Serie enlazada, 1964-1991. Base 1986*, Madrid.
- Instituto Nacional de Estadística, *Salarios*, quartely publications for 1963-1973.
- Instituto Nacional de Estadística y Ministerio de Economía(1973), *Contabilidad Nacional de España. Años 1964 a 1971 y avance de 1972*, Madrid.
- Instituto Nacional de Estadística y Ministerio de Economía (1979): *Contabilidad Nacional de España. Base 1970. Años 1964-1976, 1977 provisional y avance de 1978*.
- Instituto Nacional de Estadística y Ministerio de Economía (1979): *Tablas de Correspondencia entre las Clasificaciones Nacionales de Actividades Económicas de 1974 y 1952*, Madrid.
- Instituto Nacional de Estadística Y Ministerio de Planificación y Desarrollo (1975): *Clasificación Nacional de Actividades Económicas*, Madrid.
- Instituto de Estudios Fiscales (1969): *La Contabilidad Nacional de España, 1954-1964*, Madrid.
- Ministerio de Economía y Hacienda: *Estadísticas del Comercio Exterior de España*, Dirección General de Aduanas, varios años: 1950-1975.
- Ministerio de Planificación y Desarrollo (1975), “Tablas input-output de la economía española. Año 1970”.
- Organización Sindical Española (1962), “Tablas input-output de la Economía Española, año 1962” (2 volumen).
- Servicio Sindical de Estadística, *Estadística de la Producción Industrial*, varios años, Madrid.

## **APPENDIX A**

### **Aggregation of Spanish Input-output tables (1958, 1962, 1970 and 1975) according to 1970 Spanish National Accounts's classification.**

The Spanish input-output tables for the years 1958, 1962, 1970 and 1975 are the quantitative information used for the empiric analysis of this work. These tables show a great divergence in their classification of productive branches. The number of productive branches included runs from 207 at 1958 table to 86 at 1962 input-output table. We can observe 137 branches at 1970 table and 127 at 1975 table. In order to make information homogeneous, we have aggregate all the tables at the level of 25 branches established in 1970 Spanish National Accounts.

The detailed process of aggregation of the intermediate consumptions, primary inputs and vectors of final employments is described in Sanchis (2000). In the *table A.I* we present the equivalences among different tables.

### **Deflation of Spanish Input-Output Tables**

The objective has been to build an index of prices weighted by the share of national and imported inputs in the intermediate and final consumptions of each sector. The result is an average weighted price for each cell of the input-output table.

This appreciation is interesting since in the analyzed period we assisted to a progressive openness of the Spanish economy. This fact affected the composition of intermediate inputs, with an increasing participation of imports.

The series of domestic prices used as deflators for domestic consumption of goods and services are the following:

- ? *Agriculture*: The *Indice de precios percibido por los agricultores*, published by the Ministry of Agriculture, equivalent to the productor prices at which the tables are valued.
- ? *Industry*: *Indice de Precios al por Mayor* at 1955 base (IPM-55). In Sanchis (2000), there have been settled down equivalences between branches of CNE-70 and IPM-55.
- ? *Construction and services*: It has been difficult to obtain appropriate deflators. For this reason we use the Value Added deflators. This means to accept that their prices

vary in a similar way as their respective values added. The hypothesis is reasonable for those services more intensive in labour in which the value added is the most important component of overall cost. But for those services, as transports and communications, with a composition of inputs consumption and costs more complex, this deflator is less suitable.

- ? *Prices of imports:* It has been necessary to elaborate an index of imports prices, using two kinds of series of imports: imports in values and imports in fiscal quantities. The data used are the series of values and quantities of imports summarized by the Instituto Nacional de Estadística in its *Anuarios Estadísticos*, for several years. The original source is the *Estadística del Comercio Exterior de España* de la Dirección General de Aduanas.
- ? *Labour input:* The remuneration of labour has been deflated using the *Salarios* enquiry published by the INE, where we can find salaries for several branches of the industry and the services since 1963. For the previous years we have taken the salaries published in the *Estadística de la Producción Industrial* by the Servicio Sindical de Estadística.
- ? *Capital input:* For the Gross Remuneration of Capital has been built a series of the user cost of capital for any branch of the economy. We have built a deflator of capital for any branch of the economy that is a weighted average of machinery and equipment deflator and non-residential construction deflator. We also have taken into account depreciation rates and the nominal interest rate.

For deflating we proceed as follows,

1. After establishing the composition of the consumption, between domestic and imported goods, we obtain a different deflator for any cell of the tables.
2. We take as base year for each table, the year in which is expressed the foregoing table. So, 1962 input-output table is expressed in 1958 prices, the 1970 table in 1962 prices and the 1975 table in 1970 prices. We consider that it is more appropriate to compare successive years in order to obtain more precise results for TFP growth.

In the annexes we present input-output tables aggregated at the same level and expressed at current and constant prices.

**ANNEXE I:**  
**AGGREGATED INPUT-OUTPUT TABLES AT CNE-70**  
**AT CURRENT PRICES AND CONSTANT PRICES**

1958 INPUT-OUTPUT TABLE		0.1	0.2	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
At current millions pesetas		Agriculture, Cattle raising	Fishing	Energy, Electricity	Electricity, gas, water	Metal and non metal	Primary transformat	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1 Agriculture and cattle raising	37.007,80	3,3	96	3,4	25,4	33,4	113,6	858,9	13,9	0,7	
0.2 Fishing	0	0	0	0	0	0	0	3,1	0	0	
1.1 Energy, unless utilities	761	662,5	2.094,50	2.283,60	121,5	2.068,90	1.277,20	870,9	229,4	196,8	
1.2 Electric, gas and water utilities	994,8	0,7	428,4	714,6	245,8	1.118,60	493,9	1.213,90	371	164	
2.1 Metal and non-metallic mining	0,9	19,4	132,5	1,1	0	1.997,00	723,8	830,1	0,2	0	
2.2 Primary transformation of metals	2,4	8	5,4	14,5	0	17.884,20	59,1	172,1	10.956,20	6.125,20	
2.3 Nometallic minerals industry	3,9	3,5	0,2	0,5	0	38,4	488,9	192	196,8	88,7	
2.4 Chemical industries	3.590,30	169,6	185,2	39,4	268,1	151,2	268,9	9.344,30	640	523,8	
3.1 Industrial machinery and equipment	871,4	10,5	256,5	70,4	48,8	2.013,70	90,2	244,6	3.222,20	997,7	
3.2 Transport equipment	0	0	0	0	0	0	0	0	125	4.271,70	
4.1 Food and tobacco products	10.921,60	1,5	3,4	3,3	1,2	12,1	13,7	2.104,50	1,7	1,8	
4.2 Textil mill products	471,4	397,4	13,3	0,9	22,7	8,2	14,4	315,9	119,6	85,7	
4.3 Apparel and show	102,9	1	13,6	0,5	4,8	12,8	6,5	15,9	22,7	33,7	
4.4 Lumber, woods and furnitures	1.370,00	79,6	32,3	6,7	54,9	3,9	15,1	156,6	192,6	364,2	
4.5 Paper products, printing and publishing	213,5	3,8	15,1	42,4	12,7	13,1	542,6	753,2	74,9	19,8	
4.6 Rubber and plastics	0	5,3	9,8	2,7	3,6	0	0	271,6	505,3	339,3	
4.7 Miscellaneous manufacturing	296	0	0	0	0	0	0	4,4	6,8	77,5	
5 Construction	712,6	0	33,5	52,5	21,6	44	14,5	57,7	36,3	43,3	
6.1 Trade services	1.406,70	76,9	55	60,4	51,5	429,7	165,9	619,2	1.739,80	447,9	
6.2 Hotels, restaurants and bars	0	0	0	0	0	0	0	0	0	0	
7.1 Railroad transpot	519,6	6,4	49,2	182,5	222,2	268,9	226,8	470,9	232,6	140,5	
7.2 Land transport	831,9	13,7	94,6	99	68,5	439,8	439,2	613,5	339,7	226,5	
7.4 Sea transport	62,1	26,2	182,3	84,4	30	337	57,5	32,5	83,5	98,4	
7.5 Air transport	0	0	0	0	0	0	0	0	0	0	
7.6 Communications	53,7	9	27,3	4,1	17,6	24	7,4	47,1	48,5	26,1	
8.1 Finnancial services	2.490,30	172	612,3	288,3	513,2	481,2	329,5	825,7	715,6	522,7	
9.1 Housing to rent	503,1	17,1	81,7	75,9	14,6	157,2	67,8	245,9	210,5	137,2	
9.2 Education and health services	0	0	0	0	0	0	0	0	0	0	
9.4 Domestic and Firm services	1.089,80	31,2	89,8	68,8	44,6	119,5	235,8	909,7	625,8	226,1	
10 Other services	0	0	0	0	0	0	0	0	0	0	
Intermediate inputs	64277,7	1718,6	4511,9	4099,9	1793,3	27656,8	5652,3	21174,2	20710,6	15159,3	
Labor input remuneration	83475,5	3213	5838,2	2636,4	2806,2	4110,9	3791,1	4479,1	11346,2	7412,2	

Gross capital remuneration	47831,2	1178,1	3582,7	9810,4	1643,4	5302,9	2603,4	7321,6	7009,3	4623,7
Net indirect taxes	1613,8	495,2	314,7	582,3	128,2	1100,8	140,7	786,5	785,9	804,7
Gross Value Added at Productor Prices	131306,7	4391,1	9420,9	12446,8	4449,6	9413,8	6394,5	11800,7	18355,5	12035,9
TOTAL OUTPUT	197198,2	6604,9	14247,1	17129	6371,1	38163,3	12187,5	33761,4	39852	27999,9

### 1958 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber and plastics	Miscellaneous	Construction	Trade	Hotels, restaurant
0.1 Agriculture and cattle raising	75.466,9	4.847,3	31,7	4.979,9	282,8	0,7	3,9	5,8	44,3	57,9
0.2 Fishing	1.735,8	0	0	0	0	0	0	0	0	0
1.1 Energy, unless utilities	659,3	307,1	12,9	37,1	196,2	45,6	6,1	252,6	148,9	195,5
1.2 Electric, gas and water utilities	629,7	424,7	63,5	177,2	352,7	75,7	36,1	322,3	463,9	410,9
2.1 Metal and non-metallic mining	29,8	0	0,5	0	18,3	0,9	0,3	684	2,3	0
2.2 Primary transformation of metals	262,3	10	1,9	25,3	22,7	40	173,6	2.417,8	0	0
2.3 Nometallic minerals industry	238,7	0	11,3	39,7	3,7	1	61,7	8.942,1	0	133,2
2.4 Chemical industries	468	3.404,2	464,2	362,1	445,9	373,6	58	1.273,6	836,3	435,9
3.1 Industrial machinery and equipment	463,7	58,5	149,2	367,9	25,7	42,3	44,3	3.077,7	19	4,3
3.2 Transport equipment	0	0	0	0	0	0	0	0	0	0
4.1 Food and tobacco products	30.807,5	52,6	1.253,4	21,6	14,5	1,6	1,2	109,6	2	10,7
4.2 Textil mill products	747,2	23.048,6	16.512,2	171,3	115,4	531,7	2,1	84,9	157,3	85
4.3 Apparel and show	57,4	411,8	3.035,1	14,1	25,2	5,5	35,1	3,7	0	41,8
4.4 Lumber, woods and furnitures	526,4	20,7	73,9	5.263,3	1,2	0,1	16,8	3.559,7	214,9	33,8
4.5 Paper products, printing and publishing	576,7	53	143,8	7,3	5.431,50	35,2	7,2	121,6	686,6	48,2
4.6 Rubber and plastics	16,5	2,4	286,6	1,3	1	105,5	2,6	35,2	0,6	0,2
4.7 Miscellaneous manufacturing	48,8	0	5,2	8	0	0	8,9	0	0	0
5 Construction	222,3	59	41,7	21,3	24,1	7,5	3	0	282,2	152,2
6.1 Trade services	1.868,2	410,7	1.852,1	271,8	332,7	60,6	75,8	2.143,4	2.818,7	865,5
6.2 Hotels, restaurants and bars	0	0	0	0	0	0	0	0	0	0
7.1 Railroad transpot	603,7	228,4	69,5	163,1	311,7	54,2	10,6	429,7	70,4	67,7
7.2 Land transport	1.672,9	610,1	154,6	845,1	177,7	47,9	7,8	2.167,2	104,1	193,7
7.4 Sea transport	63,2	33,5	35,7	32,3	17	5,1	2,8	232,6	14,4	3,6
7.5 Air transport	0	0	0	0	0	0	0	0	0	0
7.6 Communications	91,1	73,4	41,4	27,1	48,2	8,9	3,3	46,9	449,6	145,8
8.1 Financial services	1.526,2	899,8	569,8	607,2	336,6	108,5	79	2.911,9	3.544,2	579,4
9.1 Housing to rent	837,5	330	142,1	104,2	121,5	37,8	33,5	79,9	3.849,9	2.459,9

9.2 Education and health services	0	0	0	0	0	0	0	0	0
9.4 Domestic and Firm services	1.498,9	1.011,3	433,1	142,2	362,5	89,7	72,5	908,2	978,9
Intermediate inputs	121118,7	36297,1	25385,4	13690,4	8668,8	1679,6	746,2	29810,4	14688,5
Labor input remuneration	9901,2	8021,9	8783,1	5623	2785,1	846,9	1241,3	15778,8	24424,2
Gross capital remuneration	15212,6	8328,1	3116,7	2455,1	2868,5	1025,3	884,9	11009,1	39216,1
Net indirect taxes	1948,1	1286	199,5	143	531,1	161,1	54,2	540,9	1541,5
Gross Value Added at Productor Prices	25113,8	16350	11899,8	8078,1	5653,6	1872,2	2126,2	26787,9	63640,3
TOTAL OUTPUT	148180,6	53933,1	37484,7	21911,5	14853,5	3712,9	2926,6	57139,2	79870,3

### 1958 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas	7,1	7.2 & 7.3	7,4	7,5	7,6	8,1	9,1	9.2 & 9.3	9,4
	Railroad Transports	Land Transports	Sea Transports	Air Transports	Communica- tions	Rent Housing	Financial Services	Personal services	Other Services
0.1 Agriculture and cattle raising	5,2	247,8	2,4	0	0,8	4,7	29,7	26,5	177,5
0.2 Fishing	0	0	0	0	0	0	0	0	0
1.1 Energy, unless utilities	1938,5	2217,5	438,3	111,3	5,4	71,2	296,6	127,5	112,2
1.2 Electric, gas and water utilities	307,9	303,1	53,9	25,1	128,1	102,8	140,9	122,5	222,8
2.1 Metal and non-metallic mining	0	0	0	0	0	0	0	0	0
2.2 Primary transformation of metals	0	0	0	0	0	0	0	0	0
2.3 Nometallic minerals industry	0	0	0	0	0	0	0	5,6	0,6
2.4 Chemical industries	55,3	49,1	74,4	1,9	4,1	18,2	137,5	450,5	453,9
3.1 Industrial machinery and equipment	5,3	5,1	4,2	0,9	13,3	2,2	20	1,5	49,6
3.2 Transport equipment	48,2	4.084,2	29,5	29,5	0	0	0	1,2	0
4.1 Food and tobacco products	2,5	33,2	1,2	0,1	0	0	0	14,1	1,8
4.2 Textil mill products	2,7	11,6	39,1	0,2	0,2	0,2	0	75,8	5,2
4.3 Apparel and show	0	5,7	0	0	1,4	0	0	16,2	39,3
4.4 Lumber, woods and furnitures	17	9,5	6,9	0,4	1,7	0,6	0	27,2	14,8
4.5 Paper products, printing and publishing	33,4	26	12,1	5,3	27,7	125,6	1,4	101,1	905,8
4.6 Rubber and plastics	0,2	0	0,2	0	0,3	0	0	2,5	1,4
4.7 Miscellaneous manufacturing	0	0	0	0	0	0	0	0	0
5 Construction	66,4	13,7	8	1,3	43	39,7	718,2	55	90,2
6.1 Trade services	135,3	430,8	43	10,6	22,4	127,3	69,8	300,1	189,4
6.2 Hotels, restaurants and bars		0				0		0	0
7.1 Railroad transpot	454,2	140,4	29,6	2,4	4,1	28,3	82,3	48	24,3
7.2 Land transport	187,3	478	46,4	20,8	84,2	18,6	47,7	37,4	89,4

7.4 Sea transport	12,5	67	684,4	1,5	8,2	2,3	30	2	1,1
7.5 Air transport		0		14,1	23,6	0		0	1,9
7.6 Communications	6,4	19,6	35,5	5,5	2,2	203,8	3,4	37,3	859,5
8.1 Financial services	170,8	800,5	423,6	39,9	14,4	1.913,4	850,9	59,1	184,6
9.1 Housing to rent	187,2	315,9	73,5	5,7	173	892,8	5	809	2.063,6
9.2 Education and health services	0	0	0	0	0	0	0	0	0
9.4 Domestic and Firm services	34,2	195,9	61,3	13	96,6	143,5	112,8	95	794,7
Intermediate inputs	3670,5	9454,6	2067,5	289,5	654,7	3695,2	2546,2	2415,1	6283,6
Labor input remuneration	5844,8	10006	2587,4	314,2	2529,1	7877,1	825,5	6814,7	16653,8
Gross capital remuneration	2269,1	7331,9	2979,8	220,3	1374,6	18955,5	25409,3	1491,9	3158,3
Net indirect taxes	443	4923,2	580,7	308,3	33,3	309,4	394	47	939,4
Gross Value Added at Productor Prices	8113,9	17337,9	5567,2	534,5	3903,7	26832,6	26234,8	8306,6	19812,1
TOTAL OUTPUT	12227,4	31715,7	8215,4	1132,3	4591,7	30837,2	29175	10768,7	27035,1

### 1958 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Fixed Capital Formation	Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	124372,2	57762,5	2794,1	6531,5	26,8	8240,1	75355	199727,2
0.2 Fishing	1738,9	4679,2	216,6	0	0	78,8	4974,6	6713,5
1.1 Energy, unless utilities	17746,1	1801,1	361,8	0	263,9	1676,1	4102,9	21749
1.2 Electric, gas and water utilities	10109,5	5921,9	1153,9	0	0	48	7123,8	17233,3
2.1 Metal and non-metallic mining	4441,1	85,3	3,7	0	406	1486,2	1981,2	6422,3
2.2 Primary transformation of metals	38180,7	0	0	0	810,2	939	1749,2	39929,9
2.3 Nometallic minerals industry	10450,5	955,4	81,6	598,4	147,2	180,1	1962,7	12413,2
2.4 Chemical industries	24547,5	9138,2	1079,9	95,8	#VALOR!	942,3	12269,3	36816,8
3.1 Industrial machinery and equipment	12180,7	14477,3	8178	2784,4	28690,3	2430,1	40871	28690,3
3.2 Transport equipment	8589,3	10106,6	4810,4	3055,5	21368,2	2928,2	29957,5	21368,2
4.1 Food and tobacco products	45392,4	93625,7	3722	0	2722,5	7324,8	107395	152787,4
4.2 Textil mill products	43040,2	1104,7	11874,4	1229,2	15505,2	779,3	58545,4	15505,2
4.3 Apparel and show	3906,7	210,9	31996	385,5	34005,9	1245,4	37912,6	34005,9
4.4 Lumber, woods and furnitures	12064,8	5742,1	433,3	3200,7	399,4	661,5	10437	22501,8
4.5 Paper products, printing and publishing	10040,6	0	3211,3	311,9	5696,5	1549,9	15737,1	5696,5

4.6 Rubber and plastics	1594,1	1154,7	1545	73,2	3077,5	223,5	4671,6	3077,5
4.7 Miscellaneous manufacturing	455,6	954	1099,2	172,9	2519,7	239,4	2975,3	2519,7
5 Construction	2864,8	2189	12038,3	40807,9	0	0	55035,2	57900
6.1 Trade services	17081,2	58680,8	1848,3	2260	0	0	62789,1	79870,3
6.2 Hotels, restaurants and bars	0		19424,9		19424,9		19424,9	19424,9
7.1 Railroad transpot	5142,2	381,2	5376,2		7406,2	1648,8	12548,4	7406,2
7.2 Land transport	10157,3	920,5	19816,1	0	21653,8	917,2	31811,1	21653,8
7.4 Sea transport	2243,1	1003,1	263,7	140,3	0	4868	6275,1	8518,2
7.5 Air transport	39,6		604,7		1132,6	46,9	1172,2	1132,6
7.6 Communications	2373,7	1755,7	474,1				2229,8	4603,5
8.1 Financial services	22570,6	0	2797,1	0	8266,6	5469,5	30837,2	8266,6
9.1 Housing to rent	14033		13906,5		15170,9	1264,4	29203,9	15170,9
9.2 Education and health services	0	0	10789	0	10789	0	10789	10789
9.4 Domestic and Firm services	10795,3	15458,4	665,9	226,3	0	55,4	16406	27201,3

1962 SPANISH INPUT-OUTPUT TABLE

	At current millions pesetas	0.1	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
		Agriculture, Cattle raising	Energy, unless Electricity	Electricity, gas, water	Metal and non metal	Primary transformat	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1	Agriculture and cattle raising	91505,4	95,8	3,0	45,0	15,2	123,6	1455,0	7,4	2,6
1.1	Energy, unless utilities	2068,3	3886,0	3087,0	181,1	4416,6	1668,6	1902,8	311,5	240,5
1.2	Electric, gas and water utilities	1320,0	772,5	311,5	348,2	1888,4	796,8	1455,3	577,9	264,1
2.1	Metal and non-metallic mining	430,4	9914,4	4,8	0,0	4176,4	1211,5	2188,2	17,6	0,0
2.2	Primary transformation of metals	58,8	15,0	62,1	5,1	36994,6	237,7	278,2	18815,4	11524,7
2.3	Nometallic minerals industry	11,9	6,1	33,3	0,0	182,9	989,4	471,9	356,4	260,2
2.4	Chemical industries	8744,1	358,5	39,2	444,1	681,4	399,6	16449,9	784,4	378,1
3.1	Industrial machinery and equipment	253,5	42,7	115,5	29,9	103,2	74,9	289,8	6417,3	4405,8
3.2	Transport equipment	237,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	11446,1
4.1	Food and tobacco products	18857,3	4,4	3,8	1,2	4,5	12,8	2521,0	1,6	3,1
4.2	Textil mill products	1830,5	26,4	0,0	26,3	9,4	15,3	423,0	124,0	195,6
4.3	Apparel and show	86,5	3,6	1,3	2,6	25,0	4,6	18,8	34,4	51,2
4.4	Lumber, woods and furnitures	2290,5	48,8	21,0	42,6	16,9	55,2	169,5	844,7	1184,1
4.5	Paper products, printing and publishing	323,4	23,5	88,9	9,2	42,4	781,0	1113,7	173,3	61,0
4.6	Rubber and plastics	61,4	15,4	4,9	10,9	27,5	1,4	465,2	1230,2	1553,8
4.7	Miscellaneous manufacturing	1808,6	481,0	84,4	48,8	4902,7	42,3	106,5	334,5	280,4
5	Construction	921,0	23,1	137,1	2,9	110,2	20,1	70,6	56,2	48,2
6.1	Trade services	3852,3	83,9	20,9	71,2	606,3	214,6	731,1	1944,0	631,6
6.2	Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1	Railroad transpot	754,8	228,7	85,2	366,9	402,5	227,1	524,3	310,0	207,7
7.2	Land transport	1375,3	156,9	103,0	193,3	800,4	469,7	896,8	788,8	433,6
7.4	Sea transport	147,7	467,8	22,5	20,5	635,3	304,6	164,0	67,8	83,5
7.5	Air transport	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.6	Communications	111,7	78,1	37,5	28,1	43,9	11,6	73,2	57,7	37,8
8.1	Finnancial services	4456,0	1020,3	420,8	602,0	647,8	401,0	1077,0	922,2	985,0
9.1	Housing to rent	778,3	160,2	115,3	18,4	268,9	89,6	363,7	191,3	364,8
10	Other services	4789,9	560,0	166,7	111,5	307,4	275,4	1390,7	883,6	643,1
	Intermediate inputs	147074,8	18473,1	4969,7	2609,8	57309,8	8428,4	34600,2	35252,5	35286,5
	Labor input remuneration	36500,4	6505,0	3572,2	3088,8	7162,5	4975,4	6636,5	12836,7	10519,9

Gross capital remuneration	145595,5	5032,8	13790,6	2248,3	6647,2	5280,2	11133,5	11328,3	8855,7
Gross Value Added at Factor Prices	182095,9	11537,8	17362,8	5337,1	13809,7	10255,6	17770,0	24165,0	19375,6
Net indirect taxes	1522,0	422,8	1433,8	355,6	1721,5	735,9	1007,0	889,8	484,4
Gross Value Added at market prices	183617,9	11960,6	18796,6	5692,7	15531,2	10991,5	18777,0	25054,8	19860,0
TOTAL OUTPUT	330692,7	30433,7	23766,3	8302,5	72841,0	19419,9	53377,2	60307,3	55146,5

### 1962 SPANISH INPUT-OUTPUT TABLE

	At current millions pesetas									
	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber and plastics	Miscellaneous	Construction	Trade	Hotels, restaurant
0.1 Agriculture and cattle raising	112197,9	11208,2	46,0	5947,7	666,2	2,3	16,0	38,0	51,5	154,4
1.1 Energy, unless utilities	849,1	426,4	24,7	41,2	246,9	80,7	35,4	697,5	189,5	387,1
1.2 Electric, gas and water utilities	907,3	859,0	155,2	212,9	517,8	208,6	89,4	361,1	645,5	798,1
2.1 Metal and non-metallic mining	68,7	0,2	0,6	0,0	18,5	23,2	0,5	796,9	2,8	0,0
2.2 Primary transformation of metals	1247,3	18,3	3,9	111,1	33,5	50,2	1122,8	5216,7	0,0	0,0
2.3 Nometallic minerals industry	510,2	0,7	15,2	60,7	4,7	3,9	144,1	15094,4	0,0	259,2
2.4 Chemical industries	1616,4	5702,3	482,7	644,9	762,9	3273,5	87,8	1788,5	1077,7	678,9
3.1 Industrial machinery and equipment	790,4	30,5	217,6	593,1	18,6	82,5	3534,7	6673,4	35,4	225,0
3.2 Transport equipment	0,0	0,0	0,0	0,0	0,0	0,0	286,1	0,0	0,0	0,0
4.1 Food and tobacco products	44996,1	40,5	2565,6	30,7	14,6	137,5	10,4	81,5	2,0	2,3
4.2 Textil mill products	1300,4	45264,5	21458,4	331,1	86,6	1037,0	182,9	109,0	284,2	206,3
4.3 Apparel and show	54,8	342,7	4149,8	133,8	11,5	1,7	148,1	5,3	0,0	0,0
4.4 Lumber, woods and furnitures	836,6	50,5	103,0	6671,0	3,1	12,2	256,6	5094,4	185,0	167,5
4.5 Paper products, printing and publishing	1246,2	134,2	278,0	16,1	10609,4	115,3	119,1	355,2	775,4	282,3
4.6 Rubber and plastics	83,6	181,0	860,5	270,0	23,4	2597,2	300,3	363,3	17,2	123,1
4.7 Miscellaneous manufacturing	235,2	878,4	72,9	86,7	689,8	457,4	499,7	81,0	34,1	38,4
5 Construction	223,4	69,5	38,8	24,8	29,2	13,8	23,5	0,0	414,3	461,2
6.1 Trade services	2083,0	1908,9	2267,9	407,6	476,6	191,4	169,4	2569,4	5715,6	1807,6
6.2 Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1 Railroad transpot	834,3	400,9	61,5	217,4	320,6	139,9	283,3	483,0	93,9	221,5
7.2 Land transport	2763,7	918,0	213,1	1298,4	291,9	169,7	190,2	2940,0	157,2	422,5
7.4 Sea transport	85,0	33,1	36,3	384,3	248,4	9,3	234,9	233,3	8,6	4,9
7.5 Air transport	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,6
7.6 Communications	138,0	114,9	47,1	46,0	81,3	18,9	14,6	77,5	764,3	304,6
8.1 Finnancial services	2081,2	1590,4	613,7	702,5	593,0	277,1	153,6	3547,0	4922,4	1210,0

9.1	Housing to rent	1107,7	477,4	356,9	174,0	208,0	88,9	224,1	116,6	5003,8	5137,6
10	Other services	2748,1	2029,2	827,2	333,1	578,1	303,8	149,1	2521,1	2078,9	1059,9
	Intermediate inputs	179004,6	72679,8	34896,6	18739,1	16535,2	9296,0	8276,6	49244,1	22459,3	13954,0
	Labor input remuneration	9739,6	14016,2	6796,9	5148,7	4356,7	2242,6	4122,0	23184,4	13666,6	7866,9
	Gross capital remuneration	23467,7	15200,6	9313,0	6231,4	4427,4	3513,4	4203,3	11003,4	67089,9	17787,6
	Gross Value Added at Factor Prices	33207,3	29216,8	16109,9	11380,1	8784,1	5756,0	8325,3	34187,8	80756,5	25654,5
	Net indirect taxes	6851,4	1598,5	280,4	196,6	891,2	441,7	275,6	1238,4	18444,5	337,5
	Gross Value Added at market prices	40058,7	30815,3	16390,3	11576,7	9675,3	6197,7	8600,9	35426,2	99201,0	25992,0
	TOTAL OUTPUT	219063,3	103495,1	51286,9	30315,8	26210,5	15493,7	16877,5	84670,3	121660,3	39946,0

**1962 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	7.1	7.2 & 7.3	7.4	7.5	7.6	8	9.1	10
	Railroad Transport	Land transport	Sea transport	Air Transport	Communica-Tinos	Finnancial Services	Housing to rent	Other services
0.1 Agriculture and cattle raising	4,8	530,5	1,6	0,0	0,8	6,2	118,4	374,9
1.1 Energy, unless utilities	1848,8	3756,8	833,0	511,7	8,6	90,6	405,0	826,3
1.2 Electric, gas and water utilities	336,9	413,1	11,4	3,1	187,1	161,0	196,1	1019,9
2.1 Metal and non-metallic mining	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2.2 Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2.3 Nometallic minerals industry	1,0	0,0	0,0	0,0	0,0	0,0	0,0	21,8
2.4 Chemical industries	93,1	154,1	82,8	2,6	6,5	50,6	174,5	1736,2
3.1 Industrial machinery and equipment	28,2	30,1	18,3	3,1	22,5	3,4	18,4	520,4
3.2 Transport equipment	162,3	7127,3	124,0	229,0	0,0	0,0	0,0	389,5
4.1 Food and tobacco products	8,1	27,8	6,6	0,1	0,0	0,0	0,0	48,3
4.2 Textil mill products	43,0	23,3	45,8	0,5	0,4	0,4	0,0	297,0
4.3 Apparel and show	4,5	8,7	0,0	0,0	1,2	0,2	0,0	46,8
4.4 Lumber, woods and furnitures	342,8	25,9	14,2	3,0	13,0	24,6	0,0	137,5
4.5 Paper products, printing and publishing	81,4	59,7	18,9	13,2	51,2	862,0	14,3	3986,8
4.6 Rubber and plastics	11,0	23,4	0,8	2,0	0,3	0,0	0,0	190,3
4.7 Miscellaneous manufacturing	4,7	7,7	5,7	1,3	16,9	3,5	43,1	73,0
5 Construction	114,0	35,9	4,2	1,4	60,0	121,2	950,0	1176,2
6.1 Trade services	690,8	6089,0	565,1	128,4	35,8	179,5	97,9	2789,7
6.2 Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1 Railroad transpot	564,7	254,3	39,5	4,8	6,1	49,4	109,8	235,8
7.2 Land transport	325,7	702,4	1044,7	264,7	136,5	32,6	64,3	413,7
7.4 Sea transport	9,0	352,3	70,6	1,2	11,5	5,3	24,0	90,2
7.5 Air transport	0,0	0,0	0,0	21,2	37,7	0,0	0,0	108,9
7.6 Communications	108,9	166,5	472,1	115,8	3,5	345,9	35,7	1719,7
8.1 Finnancial services	368,5	1570,5	575,0	127,4	16,7	510,2	1218,3	7495,7
9.1 Housing to rent	273,0	657,1	67,5	34,8	276,8	1420,7	7,0	5965,7
10 Other services	194,6	1238,0	592,4	238,6	186,5	357,4	380,4	5224,5
Intermediate inputs	5619,8	23254,4	4594,2	1707,9	1079,6	4224,7	3857,2	34888,8
Labor input remuneration	7383,6	11051,7	3158,3	624,0	2537,7	11231,1	948,1	71957,3
Gross capital remuneration	1827,2	13884,8	3798,5	560,3	4445,2	24955,6	45842,0	23403,6

Gross Value Added at Factor Prices	9210,8	24936,5	6956,8	1184,3	6982,9	36186,7	46790,1	95360,9
Net indirect taxes	256,5	583,7	271,1	65,1	783,5	771,7	416,8	969,1
Gross Value Added at market prices	9467,3	25520,2	7227,9	1249,4	7766,4	36958,4	47206,9	96330,0
<b>TOTAL OUTPUT</b>	<b>15087,1</b>	<b>48774,6</b>	<b>11822,1</b>	<b>2957,3</b>	<b>8846,0</b>	<b>41183,1</b>	<b>51064,1</b>	<b>131218,8</b>

## 1962 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Private Capital Formation	Public Capital Formation	Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	224618,4	84737,9	5229,8	543,7	950,3	12282,9	19043,0	122787,6	347406,0
1.1 Energy, unless utilities	29021,7	2321,1	377,4	0,0	0,0	-293,3	2728,4	5133,6	34155,3
1.2 Electric, gas and water utilities	14818,2	7664,7	1042,7	0,0	0,0	0,0	240,8	8948,2	23766,4
2.1 Metal and non-metallic mining	18854,7	37,9	2,4	0,0	0,0	1654,4	1752,3	3447,0	22301,7
2.2 Primary transformation of metals	75795,4	0,0	0,0	0,0	0,0	3304,0	2357,7	5661,7	81457,1
2.3 Nometallic minerals industry	18428,0	1408,2	104,3	554,4	0,0	-111,3	316,9	2272,5	20700,5
2.4 Chemical industries	46695,3	10035,6	2754,5	0,0	0,0	2519,9	2171,7	17481,7	64177,0
3.1 Industrial machinery and equipment	24578,2	9921,2	173,8	44721,5	1829,8	1100,9	2186,7	59933,9	84512,1
3.2 Transport equipment	20001,5	11931,5	3057,7	22672,5	976,7	1423,9	1793,3	41855,6	61857,1
4.1 Food and tobacco products	69381,8	140137,2	6994,3	0,0	0,0	3284,9	10616,8	161033,0	230414,8
4.2 Textil mill products	73321,3	23672,3	1256,3	921,8	0,0	3644,9	2131,6	31626,9	104948,2
4.3 Apparel and show	5137,1	41746,6	2405,7	280,6	0,0	910,5	1031,4	46374,8	51511,9
4.4 Lumber, woods and furnitures	18614,2	5867,7	407,2	4364,8	456,6	868,4	1089,4	13054,1	31668,3
4.5 Paper products, printing and publishing	21635,1	3792,4	1233,0	0,0	0,0	690,9	1279,4	6995,7	28630,8
4.6 Rubber and plastics	8418,1	6387,8	482,3	1590,1	12,4	882,5	89,0	9444,1	17862,2
4.7 Miscellaneous manufacturing	11318,7	5552,3	84,3	4177,3	776,4	131,3	208,7	10930,3	22249,0
5 Construction	5150,8	3166,5	276,4	57120,4	18956,2	0,0	0,0	79519,5	84670,3
6.1 Trade services	36329,5	81269,5	1306,4	2754,9	0,0	0,0	0,0	85330,8	121660,3
6.2 Hotels, restaurants and bars	0,0	39946,0	0,0	0,0	0,0	0,0	0,0	39946,0	39946,0
7.1 Railroad transpot	7427,9	3411,4	3481,2	551,2	0,0	0,0	215,4	7659,2	15087,1
7.2 Land transport	17567,1	26424,2	2251,6	2008,5	0,0	0,0	522,6	31206,9	48774,0
7.4 Sea transport	3755,9	1066,7	602,6	242,9	0,0	0,0	6154,1	8066,3	11822,2
7.5 Air transport	169,4	1850,0	311,5	0,0	0,0	0,0	626,4	2787,9	2957,3
7.6 Communications	5054,9	3290,5	500,7	0,0	0,0	0,0	0,0	3791,2	8846,1
8.1 Financial services	38105,3	2975,2	0,0	0,0	0,0	0,0	102,6	3077,8	41183,1
9.1 Housing to rent	23948,1	26083,0	1033,0	0,0	0,0	0,0	0,0	27116,0	51064,1
10 Other services	30169,2	54825,8	45790,0	401,4	0,0	0,0	32,4	101049,6	131218,8

**1970 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	0.1	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
	Agriculture, Cattle raising	Energy, unless Electricity	Electricity, gas, water	Metal and non metal	Primary transformation	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1 Agriculture and cattle raising	125490,0	17,0	3,0	58,0	11,0	333,0	3329,0	18,0	7,0
1.1 Energy, unless utilities	6970,0	10052,0	17843,0	486,0	10453,0	4299,0	4515,0	791,0	476,0
1.2 Electric, gas and water utilities	3730,0	1048,0	10625,0	654,0	5393,0	3055,0	4113,0	2958,0	1274,0
2.1 Metal and non-metallic mining	1027,0	34491,0	10,0	8,0	12963,0	4205,0	6446,0	47,0	0,0
2.2 Primary transformation of metals	43,0	509,0	120,0	38,0	123669,0	1081,0	1540,0	75732,0	22873,0
2.3 Nometallic minerals industry	142,0	11,0	483,0	0,0	1159,0	5776,0	1958,0	1026,0	1189,0
2.4 Chemical industries	24534,0	975,0	339,0	983,0	2403,0	1378,0	68706,0	1757,0	1566,0
3.1 Industrial machinery and equipment	3435,0	1253,0	659,0	251,0	1420,0	1118,0	1627,0	37374,0	16826,0
3.2 Transport equipment	493,0	84,0	0,0	0,0	8,0	5,0	0,0	0,0	54234,0
4.1 Food and tobacco products	38241,0	13,0	11,0	4,0	15,0	177,0	5810,0	27,0	16,0
4.2 Textil mill products	2373,0	8,0	0,0	36,0	14,0	124,0	544,0	399,0	771,0
4.3 Apparel and show	927,0	28,0	31,0	35,0	81,0	25,0	31,0	77,0	238,0
4.4 Lumber, woods and furnitures	2875,0	283,0	89,0	66,0	64,0	223,0	303,0	2049,0	1672,0
4.5 Paper products, printing and publishing	809,0	82,0	410,0	34,0	229,0	2003,0	4078,0	1224,0	365,0
4.6 Rubber and plastics	1279,0	74,0	56,0	57,0	141,0	95,0	1875,0	4002,0	6626,0
4.7 Miscellaneous manufacturing	31,0	19,0	36,0	16,0	114,0	72,0	162,0	1124,0	1179,0
5 Construction	2483,0	103,0	391,0	35,0	431,0	370,0	566,0	433,0	190,0
6.1 Trade services	8028,0	344,0	1893,0	231,0	1951,0	1766,0	2450,0	5176,0	1751,0
6.2 Hotels, restaurants and bars	96,0	45,0	283,0	4,0	384,0	256,0	787,0	759,0	261,0
7.1 Railroad transpot	983,0	217,0	404,0	108,0	1084,0	1332,0	663,0	704,0	260,0
7.2 Land transport	4301,0	463,0	1216,0	202,0	2624,0	3509,0	2277,0	3074,0	1026,0
7.4 Sea transport	357,0	451,0	129,0	44,0	1058,0	649,0	356,0	284,0	201,0
7.5 Air transport	9,0	3,0	8,0	2,0	43,0	19,0	78,0	44,0	38,0
7.6 Communications	225,0	85,0	129,0	52,0	193,0	151,0	410,0	313,0	163,0
8.1 Financial services	1638,0	690,0	738,0	278,0	730,0	988,0	1291,0	1742,0	1097,0
9.1 Housing to rent	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
10 Other services	7596,0	1910,0	1979,0	320,0	23558,0	3453,0	11172,0	9849,0	7111,0
Intermediate inputs	238115,0	53258,0	37885,0	4002,0	190193,0	36462,0	125087,0	150983,0	121410,0
Labor input remuneration	82497,0	12176,0	19542,0	10981,0	21729,0	18141,0	20610,0	68681,0	31580,0
Gross capital remuneration	226885,0	8496,0	49466,0	9694,0	26639,0	22642,0	39178,0	34941,0	14677,0

Net indirect taxes	-8622,0	41724,0	4212,0	130,0	910,0	1299,0	2811,0	3032,0	-832,0
Gross Value Added at Factor Prices	300760,0	62396,0	73220,0	20805,0	49278,0	42082,0	62599,0	106654,0	45425,0
<b>TOTAL OUTPUT</b>	<b>538875,0</b>	<b>115654,0</b>	<b>111105,0</b>	<b>24807,0</b>	<b>239471,0</b>	<b>78544,0</b>	<b>187686,0</b>	<b>257637,0</b>	<b>166835,0</b>

**1970 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber and plastics	Miscellaneous	Construction	Trade	Hotels, restaurant
0.1 Agriculture and cattle raising	259447,0	6927,0	338,0	12324,0	2295,0	8,0	223,0	47,0	110,0	21222,0
1.1 Energy, unless utilities	2484,0	515,0	83,0	163,0	707,0	272,0	52,0	2901,0	146,0	834,0
1.2 Electric, gas and water utilities	2440,0	1840,0	554,0	657,0	1964,0	786,0	279,0	1645,0	1917,0	3698,0
2.1 Metal and non-metallic mining	352,0	0,0	2,0	0,0	110,0	71,0	22,0	7041,0	12,0	2,0
2.2 Primary transformation of metals	2717,0	13,0	34,0	240,0	148,0	563,0	5194,0	31831,0	0,0	0,0
2.3 Nometallic minerals industry	2662,0	14,0	55,0	802,0	33,0	39,0	655,0	56954,0	54,0	955,0
2.4 Chemical industries	4036,0	15081,0	3171,0	1163,0	3073,0	21065,0	2071,0	4583,0	682,0	1139,0
3.1 Industrial machinery and equipment	3783,0	325,0	1334,0	1692,0	197,0	1761,0	1651,0	25375,0	1090,0	1452,0
3.2 Transport equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
4.1 Food and tobacco products	94597,0	724,0	6586,0	53,0	71,0	313,0	60,0	146,0	18,0	61986,0
4.2 Textil mill products	1110,0	63583,0	54766,0	1149,0	270,0	2663,0	933,0	236,0	350,0	142,0
4.3 Apparel and show	959,0	438,0	15416,0	264,0	85,0	67,0	187,0	88,0	448,0	921,0
4.4 Lumber, woods and furnitures	1827,0	206,0	242,0	14513,0	43,0	71,0	797,0	15641,0	1155,0	343,0
4.5 Paper products, printing and publishing	3820,0	540,0	1407,0	308,0	36073,0	875,0	701,0	1539,0	5745,0	466,0
4.6 Rubber and plastics	890,0	214,0	2840,0	1163,0	170,0	4022,0	1301,0	2095,0	1197,0	567,0
4.7 Miscellaneous manufacturing	53,0	19,0	448,0	38,0	26,0	49,0	2762,0	83,0	137,0	78,0
5 Construction	621,0	185,0	225,0	115,0	47,0	93,0	47,0	21,0	2718,0	1471,0
6.1 Trade services	4482,0	1716,0	4878,0	841,0	947,0	1139,0	582,0	6529,0	18730,0	6034,0
6.2 Hotels, restaurants and bars	247,0	156,0	211,0	55,0	241,0	190,0	212,0	240,0	1389,0	208,0
7.1 Railroad transpot	1088,0	444,0	105,0	386,0	437,0	212,0	67,0	1115,0	250,0	287,0
7.2 Land transport	6814,0	1650,0	855,0	2651,0	937,0	1275,0	420,0	8441,0	4825,0	1494,0
7.4 Sea transport	293,0	94,0	45,0	399,0	126,0	60,0	53,0	827,0	61,0	39,0
7.5 Air transport	28,0	13,0	19,0	9,0	26,0	12,0	9,0	21,0	42,0	12,0
7.6 Communications	323,0	172,0	245,0	107,0	108,0	75,0	62,0	503,0	3260,0	1122,0
8.1 Financial services	1937,0	934,0	1051,0	641,0	692,0	363,0	308,0	2137,0	7445,0	1147,0
9.1 Housing to rent	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
10 Other services	10453,0	4318,0	3642,0	1771,0	7779,0	3656,0	2540,0	9072,0	9844,0	6219,0
Intermediate inputs	407463,0	100121,0	98552,0	41504,0	56605,0	39700,0	21188,0	179111,0	61625,0	111838,0
Labor input remuneration	32119,0	23105,0	34515,0	19166,0	19393,0	11028,0	9477,0	103241,0	80215,0	36455,0
Gross capital remuneration	55284,0	23205,0	31345,0	20102,0	20202,0	15813,0	4196,0	33494,0	202911,0	66799,0

Net indirect taxes	24259,0	1398,0	885,0	638,0	671,0	847,0	423,0	2145,0	4974,0	669,0
Gross Value Added at Factor Prices	111662,0	47708,0	66745,0	39906,0	40266,0	27688,0	14096,0	138880,0	288100,0	103923,0
<b>TOTAL OUTPUT</b>	<b>519125,0</b>	<b>147829,0</b>	<b>165297,0</b>	<b>81410,0</b>	<b>96871,0</b>	<b>67388,0</b>	<b>35284,0</b>	<b>317991,0</b>	<b>349725,0</b>	<b>215761,0</b>

**1970 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	7.1	7.2	7.4	7.5	7.6	8	9.1	10
	Railroad transport	Land transport	Sea transport	Air transport	Communications	Financial Services	Housing to rent	Other services
0.1 Agriculture and cattle raising	3,0	244,0	134,0	56,0	2,0	11,0	164,0	2192,0
1.1 Energy, unless utilities	1453,0	15949,0	3159,0	2125,0	51,0	195,0	1297,0	1549,0
1.2 Electric, gas and water utilities	578,0	552,0	16,0	21,0	387,0	1774,0	979,0	10354,0
2.1 Metal and non-metallic mining	0,0	0,0	1,0	0,0	0,0	0,0	0,0	2,0
2.2 Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	628,0
2.3 Nometallic minerals industry	17,0	20,0	13,0	1,0	1,0	5,0	17,0	459,0
2.4 Chemical industries	97,0	144,0	240,0	16,0	21,0	48,0	407,0	4289,0
3.1 Industrial machinery and equipment	214,0	160,0	92,0	28,0	217,0	97,0	216,0	4346,0
3.2 Transport equipment	1625,0	2161,0	1170,0	2619,0	0,0	0,0	0,0	5522,0
4.1 Food and tobacco products	4,0	21,0	566,0	375,0	1,0	2,0	1,0	1764,0
4.2 Textil mill products	49,0	72,0	44,0	4,0	6,0	6,0	5,0	355,0
4.3 Apparel and show	48,0	57,0	166,0	34,0	8,0	57,0	32,0	802,0
4.4 Lumber, woods and furnitures	107,0	138,0	51,0	12,0	14,0	92,0	36,0	1052,0
4.5 Paper products, printing and publishing	130,0	172,0	49,0	81,0	347,0	5003,0	43,0	7800,0
4.6 Rubber and plastics	41,0	2049,0	61,0	117,0	5,0	50,0	47,0	2351,0
4.7 Miscellaneous manufacturing	22,0	28,0	42,0	9,0	13,0	54,0	28,0	1967,0
5 Construction	225,0	537,0	26,0	47,0	127,0	1089,0	4861,0	10607,0
6.1 Trade services	440,0	3590,0	786,0	621,0	42,0	532,0	381,0	4891,0
6.2 Hotels, restaurants and bars	108,0	145,0	28,0	39,0	128,0	595,0	0,0	2705,0
7.1 Railroad transpot	535,0	588,0	119,0	77,0	307,0	130,0	153,0	777,0
7.2 Land transport	426,0	3939,0	5581,0	6475,0	137,0	138,0	351,0	5244,0
7.4 Sea transport	23,0	131,0	431,0	24,0	16,0	10,0	18,0	424,0
7.5 Air transport	1,0	6,0	2,0	18,0	252,0	53,0	0,0	1295,0
7.6 Communications	175,0	517,0	962,0	653,0	1017,0	1504,0	176,0	2568,0
8.1 Financial services	293,0	1527,0	998,0	394,0	99,0	73354,0	1558,0	1790,0
9.1 Housing to rent	0,0	0,0	0,0	0,0	208,0	0,0	0,0	3292,0
10 Other services	487,0	11743,0	799,0	1273,0	689,0	2144,0	1889,0	20125,0
Intermediate inputs	7101,0	44490,0	15536,0	15119,0	4095,0	86943,0	12659,0	99150,0
Labor input remuneration	13816,0	48536,0	9909,0	8809,0	13710,0	36672,0	8403,0	332659,0
Gross capital remuneration	3898,0	63212,0	6069,0	4142,0	7077,0	-5404,0	148390,0	158538,0

Net indirect taxes	-4571,0	659,0	-640,0	67,0	2549,0	3632,0	0,0	645,0
Gross Value Added at Factor Prices	13143,0	112407,0	15338,0	13018,0	23336,0	34900,0	156793,0	491842,0
<b>TOTAL OUTPUT</b>	<b>20244,0</b>	<b>156897,0</b>	<b>30874,0</b>	<b>28137,0</b>	<b>27431,0</b>	<b>121843,0</b>	<b>169452,0</b>	<b>590992,0</b>

## 1970 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Capital Formation	Fixed Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	435013	110262,0	0,0	3320,0	3526,0	31112	148220	583233
1.1 Energy, unless utilities	89820	28636,0	0,0	0,0	-1742,0	10413	37307	127127
1.2 Electric, gas and water utilities	63291	46305,0	0,0	0,0	628,0	1000	47933	111224
2.1 Metal and non-metallic mining	66812	37,0	0,0	0,0	1001,0	3334	4372	71184
2.2 Primary transformation of metals	266973	0,0	0,0	4077,0	6668,0	8275	19020	285993
2.3 Nometallic minerals industry	74500	4843,0	0,0	399,0	654,0	2762	8658	83158
2.4 Chemical industries	163967	53077,0	0,0	0,0	10803,0	8386	72266	236233
3.1 Industrial machinery and equipment	107993	43836,0	0,0	163093,0	3388,0	27212	237529	345522
3.2 Transport equipment	67921	41074,0	0,0	56425,0	6383,0	16951	120833	188754
4.1 Food and tobacco products	211602	289664,0	0,0	0,0	4761,0	35554	329979	541581
4.2 Textil mill products	130012	18660,0	0,0	56,0	1185,0	6170	26071	156083
4.3 Apparel and show	21550	128764,0	0,0	1116,0	4363,0	12872	147115	168665
4.4 Lumber, woods and furnitures	43964	23391	0	12330	1947	4344	42012	85976
4.5 Paper products, printing and publishing	74333	25681	0	500	1054	5994	33229	107562
4.6 Rubber and plastics	33385	31278	0	1462	2123	3646	38509	71894
4.7 Miscellaneous manufacturing	8609	27963	0	6715	1554	2845	39077	47686
5 Construction	28064	4910	0	283219	0	1798	289927	317991
6.1 Trade services	80751	259489	0	9485	0	0	268974	349725
6.2 Hotels, restaurants and bars	9772	205989	0	0	0	0	205989	215761
7.1 Railroad transpot	12832	6261	0	678	0	553	7492	20324
7.2 Land transport	70345	78409	0	6635	0	7975	93019	163364
7.4 Sea transport	6603	3871	0	885	0	19729	24485	31088
7.5 Air transport	2062	18788,0	0,0	490,0	0,0	8747,0	28025,0	30087,0
7.6 Communications	15270	12423,0	0,0	0,0	0,0	878,0	13301,0	28571,0
8.1 Financial services	105860	15172,0	0,0	543,0	0,0	2717,0	18432,0	124292,0
9.1 Housing to rent	3500	165952,0	0,0	0,0	0,0	0,0	165952,0	169452,0
10 Other services	165391,0	179725,0	256120,0	7860,0	0,0	4977,0	448682,0	614073,0

**1975 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	0.1	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
	Agriculture, Cattle raising	Energy, unless Electricity	Electricity, gas, water	Metal and non metal	Primary transformation	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1 Agriculture and cattle raising	221872	26,0	18,0	101,0	18,0	576,0	4011,0	37,0	15,0
1.1 Energy, unless utilities	48973	244925,0	48321,0	1979,0	35901,0	16587,0	24502,0	4480,0	1687,0
1.2 Electric, gas and water utilities	8260	2277,0	16112,0	1872,0	13897,0	7922,0	10820,0	11210,0	3630,0
2.1 Metal and non-metallic mining	712	119,0	38,0	268,0	31584,0	12970,0	17360,0	772,0	4,0
2.2 Primary transformation of metals	117,0	1307,0	395,0	118,0	147899,0	2996,0	2699,0	125714,0	46937,0
2.3 Nometallic minerals industry	315,0	24,0	940,0	0,0	2750,0	41047,0	4197,0	2571,0	2041,0
2.4 Chemical industries	49898	3038,0	708,0	2262,0	3939,0	4014,0	164850,0	8336,0	3665,0
3.1 Industrial machinery and equipment	10011,0	2297,0	1497,0	916,0	4919,0	1919,0	3643,0	161494,0	61217,0
3.2 Transport equipment	966	163,0	222,0	96,0	3225,0	355,0	232,0	650,0	87346,0
4.1 Food and tobacco products	100523	19,0	15,0	7,0	25,0	366,0	11620,0	60,0	25,0
4.2 Textil mill products	2641	5,0	0,0	81,0	18,0	203,0	1018,0	1602,0	2379,0
4.3 Apparel and show	1132	42,0	42,0	59,0	135,0	80,0	72,0	162,0	762,0
4.4 Lumber, woods and furnitures	2638	159,0	95,0	109,0	115,0	507,0	608,0	4616,0	3304,0
4.5 Paper products, printing and publishing	1377	140,0	715,0	77,0	436,0	4583,0	9581,0	3762,0	898,0
4.6 Rubber and plastics	3046	135	77	95	316	212	5417	9181	11709
4.7 Miscellaneous manufacturing	66	22	60	22	34976	98	965	7247	2535
5 Construction	4054	311	610	87	658	645	1011	1132	775
6.1 Trade services	17343	1211	2620	662	3916	3832	7490	14493	7883
6.2 Hotels, restaurants and bars	268	65	332	12	446	419	1320	1243	573
7.1 Railroad transpot	1722	508	828	154	2143	1130	1253	1230	626
7.2 Land transport	10902	1961	2730	590	5840	9939	9783	9793	3765
7.4 Sea transport	585	1224	1543	125	1998	1730	1412	1057	471
7.5 Air transport	31	11	20	3	87	53	167	114	89
7.6 Communications	471	184	303	123	403	359	891	1273	600
8.1 Financial services	3544	1380	1279	580	1768	2200	2651	5014	2694
9.1 Housing to rent	594	274	156	16	28	105	646	587	54
10 Other services	6734	1316	2466	471	3997	2696	16388	9769	7519
Intermediate inputs	498.795	263.143	82.142	10.885	301.437	117.543	304.607	387.599	253.203
Labor input remuneration	0	0	0	0	0	0	0	0	0
Gross capital remuneration	0	0	0	0	0	0	0	0	0

Net indirect taxes	517	94.961	4.380	1.080	5.597	4.709	12.505	22.983	12.117
Gross Value Added at Factor Prices	587.028	60.883	131.696	38.317	109.330	92.232	137.694	320.167	242.280
<b>TOTAL OUTPUT</b>	<b>1.085.823</b>	<b>324.026</b>	<b>213.838</b>	<b>49.202</b>	<b>410.767</b>	<b>209.775</b>	<b>442.301</b>	<b>707.766</b>	<b>495.483</b>

**1975 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber and plastics	Miscellaneous	Construction	Trade	Hotels, restauruant
0.1 Agriculture and cattle raising	520298,0	8796,0	976,0	20158,0	8595,0	416,0	670,0	253,0	218,0	46995,0
1.1 Energy, unless utilities	7386,0	998,0	374,0	486,0	3432,0	1309,0	201,0	9547,0	749,0	1936,0
1.2 Electric, gas and water utilities	5406,0	3003,0	1670,0	1905,0	3844,0	1804,0	813,0	3456,0	6540,0	10949,0
2.1 Metal and non-metallic mining	842,0	10,0	3,0	0,0	223,0	178,0	78,0	13657,0	23,0	4,0
2.2 Primary transformation of metals	5312,0	16,0	94,0	390,0	351,0	1166,0	9962,0	101691,0	0,0	0,0
2.3 Nometallic minerals industry	7414,0	156,0	117,0	1678,0	61,0	60,0	1124,0	122608,0	159,0	2018,0
2.4 Chemical industries	9912,0	29947,0	6903,0	3723,0	8304,0	51239,0	5841,0	15699,0	1477,0	2570,0
3.1 Industrial machinery and equipment	8458,0	1163,0	2946,0	3448,0	1246,0	3392,0	6978,0	87719,0	2491,0	2475,0
3.2 Transport equipment	808,0	101,0	217,0	253,0	121,0	104,0	158,0	894,0	4640,0	1579,0
4.1 Food and tobacco products	230457,0	683,0	11397,0	195,0	117,0	210,0	288,0	342,0	41,0	120388,0
4.2 Textil mill products	1187,0	64908,0	70070,0	1607,0	229,0	7700,0	976,0	401,0	806,0	250,0
4.3 Apparel and show	314,0	439,0	38182,0	401,0	80,0	109,0	430,0	164,0	840,0	3941,0
4.4 Lumber, woods and furnitures	2827,0	260,0	940,0	30210,0	96,0	162,0	1525,0	33725,0	2776,0	493,0
4.5 Paper products, printing and publishing	10665,0	640,0	3124,0	567,0	113094,0	1616,0	1467,0	3465,0	13786,0	1328,0
4.6 Rubber and plastics	2532	271	7124	2220	568	8788	1849	7463	3708	1042
4.7 Miscellaneous manufacturing	163	60	1922	59	6143	444	8420	1436	691	135
5 Construction	1147	262	258	307	122	250	133	962	7363	2964
6.1 Trade services	11881	9231	17171	3384	3290	4023	2082	21264	38001	13852
6.2 Hotels, restaurants and bars	376	237	401	167	258	500	273	829	4010	468
7.1 Railroad transpot	2057	450	379	844	917	365	192	2116	436	675
7.2 Land transport	20408	3278	4665	9113	5470	2819	1313	29941	13701	4226
7.4 Sea transport	794	100	170	1199	316	161	202	3032	345	51
7.5 Air transport	72	44	59	30	36	34	16	133	387	57
7.6 Communications	742	252	492	267	202	202	137	1106	7368	2752
8.1 Finnacial services	3946	2130	2791	1757	1559	949	770	5638	14705	2282
9.1 Housing to rent	387	250	617	575	229	347	86	1392	160	162
10 Other services	11920	1672	4834	1847	6389	6338	2046	25605	15760	11454
Intermediate inputs	867.711	129.357	177.896	86.790	165.292	94.685	48.030	494.538	141.181	235.046
Labor input remuneration	0	0	0	0	0	0	0	0	0	0
Gross capital remuneration	0	0	0	0	0	0	0	0	0	0
Net indirect taxes	47.607	4.941	7.189	3.201	10.415	3.157	3.607	15.094	9.615	1.649

Gross Value Added at Factor Prices	195.446	88.088	144.594	87.534	112.652	59.892	64.880	454.376	713.514	225.440
TOTAL OUTPUT	1.063.157	217.445	322.490	174.324	277.944	154.577	112.910	948.914	854.695	460.486

**1975 SPANISH INPUT-OUTPUT TABLE**

At current millions pesetas

	7.1	7.2 & 7.3	7.4	7.5	7.6	8	9.1	
	Railroad transport	Land transport	Sea transport	Air transport	Communications	Financial Services	Housing to rent	Other services
0.1 Agriculture and cattle raising	5,0	246,0	196,0	17	6	79	412	8839
1.1 Energy, unless utilities	3301,0	46212,0	21709,0	11084	435	688	2696	6517
1.2 Electric, gas and water utilities	1050,0	1036,0	12,0	86	496	4636	2054	13012
2.1 Metal and non-metallic mining	0,0	0,0	1,0	0	0	0	0	6
2.2 Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	526,0
2.3 Nometallic minerals industry	135,0	58,0	27,0	1,0	5,0	19,0	69,0	784,0
2.4 Chemical industries	767,0	566,0	553,0	139	52	314	734	22095
3.1 Industrial machinery and equipment	330,0	499,0	241,0	44,0	1009,0	377,0	840,0	4440,0
3.2 Transport equipment	2393,0	42727,0	2920,0	5458,0	90	90	341	14429
4.1 Food and tobacco products	6,0	54,0	1662,0	606,0	2	3	3	6364
4.2 Textil mill products	47,0	42,0	96,0	9,0	8	33	21	423
4.3 Apparel and show	60,0	68,0	174,0	65,0	18	90	48	652
4.4 Lumber, woods and furnitures	197,0	169,0	36,0	27,0	16	127	53	842
4.5 Paper products, printing and publishing	284,0	419,0	134,0	215,0	857	13204	143	14394
4.6 Rubber and plastics	94,0	3818	95	260	14	193	87	3066
4.7 Miscellaneous manufacturing	16,0	46	29	11	34	132	62	2778
5 Construction	1810,0	836	69	131	412	4593	12495	22573
6.1 Trade services	830,0	8593	1339	1205	129	1358	854	12081
6.2 Hotels, restaurants and bars	215,0	373	46	108	198	1072	28	5965
7.1 Railroad transpot	2245,0	1851	172	120	1226	289	185	1990
7.2 Land transport	385,0	5938	8363	15179	332	614	740	9747
7.4 Sea transport	75,0	911	712	40	294	53	39	658
7.5 Air transport	10,0	21	13	125	812	373	18	2414
7.6 Communications	255,0	1727	1200	880	1596	5579	289	7941
8.1 Financial services	630,0	6445	1939	1358	193	13837	4177	4005
9.1 Housing to rent	0,0	1093	510	331	71	1558	280	5923
10 Other services	1065,0	5710	1158	1889	493	9700	3691	61766
Intermediate inputs	16.205	129.458	43.406	39.388	8.798	59.011	30.359	234.230
Labor input remuneration	0	0	0	0	0	0	0	0
Gross capital remuneration	0	0	0	0	0	0	0	0

Net indirect taxes	45	2.008	548	455	6.971	13.041	482	5189
Gross Value Added at Factor Prices	39.267	221.968	38.765	26.332	67.081	83.309	313.907	1.002.225
<b>TOTAL OUTPUT</b>	<b>55.472</b>	<b>351.426</b>	<b>82.171</b>	<b>65.720</b>	<b>75.879</b>	<b>142.320</b>	<b>344.266</b>	<b>1.236.455</b>

## 1975 SPANISH INPUT-OUTPUT TABLE

At current millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Fixed Capital Formation	Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	843849,0	248039,0	0,0	19552,0	10007,0	55454,0	333052,0	1176901,0
1.1 Energy, unless utilities	546415,0	117608,0	0,0	0,0	-30534,0	33192,0	120266,0	666681,0
1.2 Electric, gas and water utilities	137772,0	73711,0	0,0	0,0	803,0	676,0	75190,0	212962,0
2.1 Metal and non-metallic mining	78852,0	104,0	0,0	0,0	-1396,0	4484,0	3192,0	82044,0
2.2 Primary transformation of metals	447690,0	0,0	0,0	6864,0	-6200,0	36505,0	37169,0	484859,0
2.3 Nometallic minerals industry	190378,0	10971,0	0,0	1811,0	4356,0	15807,0	32945,0	223323,0
2.4 Chemical industries	401545,0	109271,0	0,0	0,0	21883,0	24945,0	156099,0	557644,0
3.1 Industrial machinery and equipment	376009,0	120507,0	0,0	355067,0	12229,0	82885,0	570688,0	946697,0
3.2 Transport equipment	170578,0	199769,0	0,0	96357,0	10039,0	57812,0	363977,0	534555,0
4.1 Food and tobacco products	485478,0	616661,0	0,0	0,0	22916,0	51569,0	691146,0	1176624,0
4.2 Textil mill products	156760,0	64028,0	0,0	478,0	6105,0	15767,0	86378,0	243138,0
4.3 Apparel and show	48561,0	241838,0	0,0	2079,0	663,0	39954,0	284534,0	333095,0
4.4 Lumber, woods and furnitures	86632,0	64657,0	0,0	24645,0	1513,0	9603,0	100418,0	187050,0
4.5 Paper products, printing and publishing	200971,0	79950,0	0,0	6581,0	5063,0	16175,0	107769,0	308740,0
4.6 Rubber and plastics	73380	63206	0	5975	4266	17011	90458	163838
4.7 Miscellaneous manufacturing	68572	57919	0	28803	2723	7424	96869	165441
5 Construction	65970	20409	0	876014	0	1071	897494	963464
6.1 Trade services	210018	614084	0	23907	0	0	637991	848009
6.2 Hotels, restaurants and bars	20202	441554	0	0	0	0	441554	461756
7.1 Railroad transpot	26103	11659	0	2711	0	2715	17085	43188
7.2 Land transport	191535	144952	0	17169	0	13357	175478	367013
7.4 Sea transport	19297	11487	0	2603	0	43838	57928	77225
7.5 Air transport	5229	44229	0	815	0	18208	63252	68481
7.6 Communications	37594	39354	0	0	0	2039	41393	78987
8.1 Finnacial services	90221	49158	0	5920	0	20829	75907	166128
9.1 Housing to rent	16431	328520	0	0	0	163	328683	345114
10 Other services	224693	411144	588891	21007	0	5721	1026763	1251456



**1962 SPANISH INPUT-OUTPUT**

At 1958 millions pesetas	0.1	0.2	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
	Agriculture Cattle raising	Fishing	Energy, not Electricity	Electricity, gas, water	Metal and non metal	Primary transformat	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1 Agriculture and cattle raising	81396,1	2,8	85,2	2,7	40,0	13,5	109,9	1289,0	6,6	2,3
0.2 Fishing	0,0	0,0	0,0	0,0	0,0	0,0	0,0	4,9	0,0	0,0
1.1 Energy, unless utilities	1074,5	578,7	3359,0	2451,8	143,8	3625,0	1325,2	1520,9	247,4	191,0
1.2 Electric, gas and water utilities	1404,9	1,9	823,3	332,0	371,1	2012,6	849,2	1551,0	615,9	281,5
2.1 Metal and non-metallic mining	394,9	27,7	9738,9	4,7	0,0	4079,2	1184,0	2140,3	17,3	0,0
2.2 Primary transformation of metals	44,0	11,8	13,1	54,4	5,0	32651,3	208,1	244,9	16697,1	10139,4
2.3 Nometallic minerals industry	10,6	1,6	6,3	34,2	0,0	186,5	1013,9	480,1	361,8	266,0
2.4 Chemical industries	8294,1	261,4	350,3	38,3	433,9	668,1	390,7	16092,9	767,9	369,4
3.1 Industrial machinery and equipment	122,8	116,8	40,3	109,1	28,2	97,4	70,7	273,6	6161,4	4228,8
3.2 Transport equipment	233,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	11811,2
4.1 Food and tobacco products	16416,3	1,6	3,8	3,3	1,0	3,9	11,1	2250,7	1,4	2,7
4.2 Textil mill products	975,9	1003,8	28,6	0,0	28,5	10,2	16,6	455,3	134,5	212,1
4.3 Apparel and show	79,9	0,7	3,4	1,2	2,4	23,3	4,3	17,5	32,0	47,7
4.4 Lumber, woods and furnitures	1724,8	73,8	38,3	16,5	33,5	13,3	43,3	133,1	663,4	929,8
4.5 Paper products, printing and publishing	294,3	5,2	21,8	82,3	8,5	39,3	723,7	1031,4	160,5	56,5
4.6 Rubber and plastics	42,7	13,1	14,0	4,5	9,9	25,0	1,3	423,0	1122,2	1419,6
4.7 Miscellaneous manufacturing	1667,3	8,2	445,6	78,2	45,2	4637,3	39,2	98,7	309,9	259,8
5 Construction	853,3	2,0	21,5	127,3	2,7	102,3	18,7	65,6	52,2	44,8
6.1 Trade services	3172,1	97,9	71,2	17,7	60,4	514,6	182,2	620,6	1650,1	536,1
6.2 Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1 Railroad transpot	640,1	9,3	196,7	73,3	315,6	346,3	195,4	451,0	266,7	178,7
7.2 Land transport	1130,1	27,9	132,1	86,7	162,8	673,9	395,5	755,1	664,1	365,1
7.4 Sea transport	105,9	35,3	447,1	21,5	19,6	607,1	291,1	156,7	64,8	79,8
7.5 Air transport	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.6 Communications	77,6	17,6	66,6	32,0	23,9	37,4	9,9	62,4	49,2	32,2
8.1 Finnacial services	3569,7	310,5	888,5	366,4	524,2	564,1	349,2	937,8	803,0	857,7
9.1 Housing to rent	673,3	24,4	143,6	103,4	16,5	241,1	80,3	326,0	171,5	327,0
9.2 Education and health services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.4 Domestic and Firm services	1774,9	153,6	334,9	61,7	45,2	165,6	162,1	736,0	468,2	348,0
10 Public services	1572,2	100,4	94,0	63,3	38,7	68,5	48,6	322,2	204,2	141,9
Intermediate inputs	127745,3	2888,0	17367,9	4166,2	2360,8	51406,9	7724,2	32440,8	31693,3	33129,0

Labor input remuneration	26164,9	4997,4	5553,7	3049,8	2637,1	6115,0	4247,8	5665,9	10959,4	8981,4
Gross capital remuneration	125150,0	1377,8	4373,7	11984,5	1953,9	5776,7	4588,7	9675,4	9844,7	7695,9
Net indirect taxes	1000,8	412,1	392,5	1331,0	330,1	1598,1	683,2	934,8	826,0	449,7
<b>TOTAL OUTPUT</b>	<b>280061,0</b>	<b>9675,3</b>	<b>27687,7</b>	<b>20531,6</b>	<b>7281,8</b>	<b>64896,6</b>	<b>17243,8</b>	<b>48716,9</b>	<b>53323,4</b>	<b>50255,9</b>

### 1962 SPANISH INPUT-OUTPUT

At 1958 millions pesetas	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil products	Apparel and show	Lumber, woods ...	Paper products	Rubber plastics	Miscellaneous	Construction	Trade	Hotels, restaurant
0.1 Agriculture and cattle raising	97374,9	10026,0	41,2	5296,3	593,8	2,0	11,9	33,8	45,8	137,3
0.2 Fishing	2537,7	0,0	0,0	0,0	0,0	0,0	2,4	0,0	0,0	0,0
1.1 Energy, unless utilities	674,4	338,7	19,6	32,7	196,1	64,1	28,1	554,3	150,5	307,4
1.2 Electric, gas and water utilities	967,0	915,5	165,4	226,9	551,8	222,3	95,3	384,8	687,9	850,6
2.1 Metal and non-metallic mining	67,0	0,2	0,6	0,0	18,0	22,7	0,5	776,9	2,7	0,0
2.2 Primary transformation of metals	1169,7	16,4	3,4	97,3	29,3	43,9	998,9	4662,5	0,0	0,0
2.3 Nometallic minerals industry	523,9	0,7	15,6	62,3	4,8	4,0	146,7	15460,1	0,0	266,1
2.4 Chemical industries	1579,8	5572,9	472,0	630,8	745,5	3207,5	85,8	1747,6	1053,0	663,3
3.1 Industrial machinery and equipment	746,5	29,0	206,0	560,5	17,6	77,9	3356,4	6309,4	33,4	212,4
3.2 Transport equipment	0,0	0,0	0,0	0,0	0,0	0,0	297,6	0,0	0,0	0,0
4.1 Food and tobacco products	39520,8	35,1	2404,2	26,6	12,7	122,9	9,0	70,7	1,7	2,0
4.2 Textil mill products	1410,1	48972,1	23256,5	359,0	93,9	1124,5	198,3	118,2	308,2	223,7
4.3 Apparel and show	51,0	319,1	3870,0	124,6	10,7	1,6	137,9	4,9	0,0	0,0
4.4 Lumber, woods and furnitures	656,9	39,7	80,9	5431,0	2,4	9,6	201,5	4021,1	145,3	131,5
4.5 Paper products, printing and publishing	1154,2	124,3	257,5	14,9	9926,9	106,8	110,3	335,3	718,1	261,4
4.6 Rubber and plastics	76,0	164,6	786,5	245,5	21,3	2480,2	273,1	330,4	15,6	111,9
4.7 Miscellaneous manufacturing	217,9	834,3	67,5	80,3	647,3	423,8	476,7	75,0	31,6	35,6
5 Construction	207,5	64,5	36,0	23,0	27,1	12,8	21,8	0,0	384,8	428,3
6.1 Trade services	1768,1	1620,3	1925,0	346,0	404,5	162,5	143,8	2181,0	4851,5	1534,3
6.2 Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1 Railroad transpot	717,7	344,9	52,9	187,0	275,8	120,4	243,7	415,5	80,8	190,6
7.2 Land transport	2326,9	772,9	179,4	1093,2	245,8	142,9	160,1	2475,4	132,4	355,7
7.4 Sea transport	81,2	31,6	34,7	367,3	237,4	8,9	224,5	223,0	8,2	4,7
7.5 Air transport	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,3
7.6 Communications	117,6	97,9	40,1	39,2	69,3	16,1	12,4	66,0	651,4	259,6
8.1 Finnacial services	1812,3	1384,9	534,4	611,7	516,4	241,3	133,8	3088,6	4286,3	1053,6
9.1 Housing to rent	993,0	428,0	319,9	156,0	186,5	79,7	200,9	104,5	4485,7	4605,6

9.2 Education and health services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.4 Domestic and Firm services	1240,6	1366,3	497,9	139,0	334,4	160,2	68,0	1155,4	891,5
10 Public services	835,1	198,6	135,8	111,8	107,5	70,9	44,7	750,1	675,4
Intermediate inputs	158827,8	73698,5	35403,2	16263,0	15276,9	8929,4	7684,0	45344,5	19641,8
Labor input remuneration	8315,2	11966,4	5802,9	4395,7	3719,5	1914,6	3519,2	19793,7	11667,9
Gross capital remuneration	20394,3	13209,9	8093,3	5415,3	3847,6	3053,3	3652,8	9562,4	58303,6
Net indirect taxes	6360,4	1483,9	260,3	182,5	827,3	410,0	255,8	1149,6	17122,6
TOTAL OUTPUT	193897,7	100358,7	49559,7	26256,6	23671,4	14307,4	15111,9	75850,2	106735,8

### 1962 SPANISH INPUT-OUTPUT

	7.1	7.2 & 7.3	7.4	7.5	7.6	8	9.1	9.2	9.4	9.4
At 1958 millions pesetas	Railroad Transports	Land Transports	Sea Transports	Air Transports	Comunica tions	Financial Services	Rent housing	Education and health	Domestic and firm...	Public services
0.1 Agriculture and cattle raising	4,3	471,7	1,4	0,0	0,7	5,5	105,3	0,0	322,4	10,9
0.2 Fishing	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
1.1 Energy, unless utilities	1468,4	3036,3	724,2	474,2	6,8	72,0	321,7	0,0	288,1	368,1
1.2 Electric, gas and water utilities	359,1	440,3	12,1	3,3	199,4	171,6	209,0	0,0	378,6	708,4
2.1 Metal and non-metallic mining	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2.2 Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
2.3 Nometallic minerals industry	1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	9,7	12,7
2.4 Chemical industries	91,0	150,6	80,9	2,5	6,4	49,4	170,5	0,0	1561,0	137,0
3.1 Industrial machinery and equipment	26,6	28,4	17,3	2,9	21,2	3,2	17,4	0,0	125,9	365,5
3.2 Transport equipment	168,9	7415,0	129,0	238,2	0,0	0,0	0,0	0,0	11,1	394,1
4.1 Food and tobacco products	7,0	24,1	5,7	0,1	0,0	0,0	0,0	0,0	39,4	2,5
4.2 Textil mill products	46,6	25,3	49,7	0,5	0,4	0,4	0,0	0,0	248,4	73,6
4.3 Apparel and show	4,2	8,1	0,0	0,0	1,1	0,2	0,0	0,0	26,2	17,4
4.4 Lumber, woods and furnitures	269,2	20,3	11,2	2,4	10,2	19,3	0,0	0,0	68,2	39,7
4.5 Paper products, printing and publishing	75,4	55,3	17,5	12,2	47,4	798,3	13,2	0,0	1345,3	2347,6
4.6 Rubber and plastics	10,0	21,3	0,7	1,8	0,3	0,0	0,0	0,0	147,6	26,6
4.7 Miscellaneous manufacturing	4,4	7,1	5,3	1,2	15,7	3,2	39,9	0,0	18,2	49,5
5 Construction	105,9	33,3	3,9	1,3	55,7	112,6	882,2	0,0	301,7	790,6
6.1 Trade services	586,4	5168,5	479,7	109,0	30,4	152,4	83,1	0,0	803,2	1564,7
6.2 Hotels, restaurants and bars	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
7.1 Railroad transpot	485,8	218,8	34,0	4,1	5,2	42,5	94,5	0,0	86,5	116,3
7.2 Land transport	274,2	591,4	879,6	222,9	114,9	27,4	54,1	0,0	157,1	191,2
7.4 Sea transport	8,6	336,7	67,5	1,1	11,0	5,1	22,9	0,0	2,9	83,3
7.5 Air transport	0,0	0,0	0,0	17,8	31,7	0,0	0,0	0,0	4,3	87,3

7.6 Communications	92,8	141,9	402,3	98,7	3,0	294,8	30,4	0,0	1028,5	437,0
8.1 Finnacial services	320,9	1367,6	500,7	110,9	14,5	444,3	1060,9	0,0	381,9	6145,2
9.1 Housing to rent	244,7	589,1	60,5	31,2	248,1	1273,6	6,3	0,0	4260,2	1087,9
9.2 Education and health services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.4 Domestic and Firm services	105,9	353,6	433,0	108,2	99,9	230,2	119,9	0,0	2971,0	789,3
10 Public services	42,4	566,8	26,3	72,0	42,1	44,7	163,8	0,0	286,3	0,0
Intermediate inputs	4803,5	21071,4	3942,5	1516,8	966,3	3750,6	3395,0	0,0	14873,7	15846,4
Labor input remuneration	6303,8	9435,4	2696,4	532,7	2166,6	9588,6	809,4	0,0	26036,2	35397,5
Gross capital remuneration	1587,9	12066,4	3301,0	486,9	3863,0	21687,3	39838,4	0,0	18966,5	1372,1
Gross Value Added at Factor Prices	7891,7	21501,8	5997,4	1019,7	6029,6	31275,9	40647,8	0,0	45002,7	36769,6
Net indirect taxes	238,1	541,9	251,7	60,4	727,3	716,4	386,9	0,0	899,6	0,0
<b>TOTAL OUTPUT</b>	<b>12933,3</b>	<b>43115,1</b>	<b>10191,6</b>	<b>2596,9</b>	<b>7723,2</b>	<b>35742,9</b>	<b>44429,8</b>	<b>0,0</b>	<b>60776,0</b>	<b>52616,1</b>

## 1962 SPANISH INPUT-OUTPUT TABLE

At 1958 millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Fixed Capital Formation	Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	197433,5	68546,4	4381,4	1330,9	10891,1	16763,2	101912,9	299346,1
0.2 Fishing	2545,0	6812,1	270,0	0,0	51,9	170,0	7303,9	9849,0
1.1 Energy, unless utilities	23642,9	1854,2	304,1	0,0	-232,9	2166,9	4092,2	27705,0
1.2 Electric, gas and water utilities	15792,6	8168,8	1111,3	0,0		256,6	9536,7	25329,3
2.1 Metal and non-metallic mining	18475,6	37,0	2,3	0,0	1623,5	1708,2	3371,0	21846,4
2.2 Primary transformation of metals	67090,5			0,0	2987,6	2063,8	5050,1	72135,0
2.3 Nometallic minerals industry	18868,7	1441,3	106,8	568,2	-114,3	325,4	2327,4	21196,0
2.4 Chemical industries	45674,3	9806,8	2691,4	0,0	2467,0	2121,8	17087,0	62761,3
3.1 Industrial machinery and equipment	23406,9	9380,9082	167,75558	44634,1	1039,4	2064,5	57284,3	80689,7
3.2 Transport equipment	20698,2	12382,2	3159,9	24359,2	1481,4	1865,7	43247,7	63944,8
4.1 Food and tobacco products	60980,3	122193,3	6190,7	0,0	2848,8	9207,2	140438,0	201404,5
4.2 Textil mill products	79375,1	25647,0	1362,3	987,7	3952,4	2311,4	34260,7	113635,6
4.3 Apparel and show	4789,4	38878,5	2240,2	261,4	847,8	960,4	43188,3	47977,7
4.4 Lumber, woods and furnitures	14830,2	4609,6	319,7	3788,8	681,9	855,4	10255,5	25080,6
4.5 Paper products, printing and publishing	20145,4	3526,8	1144,0	0,0	639,8	1184,8	6495,5	26640,3
4.6 Rubber and plastics	7788,7	5817,3	438,6	1461,3	818,8	80,9	8616,6	16401,0
4.7 Miscellaneous manufacturing	10623,8	5179,6	78,4	4696,6	121,6	193,3	10268,7	20891,4
5 Construction	4793,4	2940,7	256,7	70650,6			73848,0	78631,4
6.1 Trade services	30837,4	68983,5	1108,9	2338,4			72430,9	103268,2
6.2 Hotels, restaurants and bars	0,0	32675,7	0,0	0,0	0,0	0,0	32675,7	32675,7
7.1 Railroad transpot	6390,1	2934,8	2994,8	474,2		185,3	6589,1	12979,3
7.2 Land transport	14790,9	22248,2	1895,8	1691,1		440,0	26275,1	41065,9
7.4 Sea transport	3589,4	1019,4	575,9	232,1		5881,2	7708,6	11298,0
7.5 Air transport	142,4	1555,5	261,9	0,0		526,7	2344,2	2486,6
7.6 Communications	4307,9	2804,2	426,7	0,0			3231,0	7538,8
8.1 Finnacial services	33181,2	2590,7		0,0		89,3	2680,1	35861,3
9.1 Housing to rent	21468,5	23382,3	926,0	0,0			24308,4	45776,9
9.2 Education and health services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.4 Domestic and Firm services	15806,6	37484,5	1132,5	498,7		25,2	39119,4	54925,9

10 Public services	7157,6	4839,7	32055,4	0,0	36895,1	44032,7
--------------------	--------	--------	---------	-----	---------	---------

1970 SPANISH INPUT-OUTPUT TABLE		0.1	0.2	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
At 1962 millions pesetas		Agriculture and Cattle raising	Fishing	Energy,not Electricity	Electricity, gas, water	Metal and non metal	Primary transformat	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1	Agriculture and cattle raising	90653,6	5,7	12,2	2,2	41,7	7,9	239,3	2325,1	12,9	5,0
0.2	Fishing	0,0	1,8	0,0	0,0	0,0	0,0	0,0	59,2	0,0	0,0
1.1	Energy, unless utilities	4854,3	1190,8	8702,2	15472,1	421,5	9063,2	3728,1	3915,4	686,0	412,8
1.2	Electric, gas and water utilities	3054,3	6,6	860,0	8719,0	536,7	4425,6	2507,0	3375,2	2427,4	1045,5
2.1	Metal and non-metallic mining	612,3	44,8	27293,9	6,4	6,3	9236,7	2943,1	4411,8	33,5	0,0
2.2	Primary transformation of metals	8,6	22,1	363,5	80,9	27,1	86319,1	771,9	1066,4	52344,1	15866,0
2.3	Nometallic minerals industry	109,0	4,8	8,8	387,1	0,0	928,2	4612,2	1559,3	816,4	948,5
2.4	Chemical industries	17368,9	367,5	645,7	252,2	772,5	1227,9	1020,4	41449,9	1377,6	1259,4
3.1	Industrial machinery and equipment	2748,5	205,8	1078,9	562,0	216,1	1222,7	962,6	1400,9	27243,0	13156,8
3.2	Transport equipment	0,0	477,8	81,4	0,0	0,0	7,8	4,8	0,0	0,0	51527,9
4.1	Food and tobacco products	28257,6	309,7	9,7	8,2	3,0	11,2	132,1	4603,5	20,2	11,9
4.2	Textil mill products	681,1	1472,1	7,3	0,0	32,9	12,8	113,2	486,0	364,2	703,7
4.3	Apparel and show	361,5	282,2	20,1	22,2	25,1	58,0	17,9	22,2	55,2	170,5
4.4	Lumber, woods and furnitures	2271,8	270,8	250,4	78,8	58,4	56,6	197,3	268,1	1813,3	1479,6
4.5	Paper products, printing and publishing	629,7	12,7	65,1	325,6	27,0	181,8	1566,5	3170,8	954,9	289,8
4.6	Rubber and plastics	1178,6	156,6	77,3	58,5	59,6	147,3	99,3	1959,0	4170,4	6882,4
4.7	Miscellaneous manufacturing	16,4	11,9	17,3	32,8	14,6	104,0	65,7	147,8	1025,2	1075,3
5	Construction	1416,6	2,9	58,9	223,5	20,0	246,4	211,5	323,6	247,5	108,6
6.1	Trade services	4116,7	253,7	187,3	1030,5	125,8	1062,1	961,4	1333,8	2817,8	953,2
6.2	Hotels, restaurants and bars	52,3	1,7	25,3	159,0	2,2	215,7	143,8	442,2	426,4	146,6
7.1	Railroad transpot	730,9	34,2	168,9	314,4	84,1	843,7	1036,7	516,0	547,9	202,4
7.2	Land transport	2420,9	455,4	309,6	813,2	135,1	1754,8	2346,7	1522,8	2055,8	686,1
7.4	Sea transport	272,0	37,2	390,6	111,7	38,1	916,3	562,1	308,3	246,0	174,1
7.5	Air transport	4,4	0,6	1,7	4,4	1,1	23,8	10,5	43,3	24,4	21,1
7.6	Communications	97,8	24,4	46,2	70,1	28,3	104,9	82,0	222,7	170,0	88,6
8.1	Finnacial services	602,8	85,3	289,9	310,0	116,8	306,7	415,1	542,3	731,8	460,8
9.1	Housing to rent	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.2	Education and health services	405,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.4	Domestic and Firm services	2388,6	170,9	755,4	695,9	93,5	9858,9	1356,5	4578,7	4005,3	3601,1
10	Public services	243,2	18,5	48,3	124,3	36,4	133,0	95,2	145,8	155,2	129,0
11	Private households	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Intermediate inputs		165557,3	5928,7	41775,9	29865,2	2923,7	128477,1	26202,9	80200,1	104772,5	101407,2

Labor input remuneration	40692,0	8186,4	7214,1	11578,4	6506,1	12874,2	10748,3	12211,2	40692,6	18710,7
Gross capital remuneration	139716,8	6312,0	5468,2	31837,5	6239,3	17145,5	14573,0	25215,9	22488,9	9446,5
Net indirect taxes	-3390,4	-44,6	16623,1	1678,1	51,8	362,5	517,5	1119,9	1208,0	-331,5
TOTAL OUTPUT	342575,7	20382,5	71081,4	74959,2	15720,9	158859,4	52041,7	118747,2	169161,9	129233,0

**1970 SPANISH INPUT-OUTPUT TABLE**

	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
At 1962 millions pesetas	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber and plastics	Miscellaneous	Construction	Trade	Hotels, restarurant
0.1 Agriculture and cattle raising	182810,7	5152,3	251,4	9011,9	1664,7	5,7	70,3	33,8	79,0	12845,7
0.2 Fishing	4478,4	0,0	0,0	0,0	0,0	0,0	81,1	0,0	0,0	2186,0
1.1 Energy, unless utilities	2154,3	446,7	72,0	141,4	613,2	235,9	45,1	2515,9	126,6	723,3
1.2 Electric, gas and water utilities	2002,3	1509,9	454,6	539,1	1611,7	645,0	229,0	1349,9	1573,1	3034,6
2.1 Metal and non-metallic mining	225,2	0,0	1,3	0,0	70,4	45,4	14,1	4505,1	7,7	1,3
2.2 Primary transformation of metals	1822,0	9,3	24,3	171,4	105,7	402,0	3396,6	22441,6	0,0	0,0
2.3 Nometallic minerals industry	2133,7	11,2	43,8	638,8	26,5	31,3	522,5	45627,2	43,3	765,5
2.4 Chemical industries	3064,4	10141,7	2029,8	893,2	2178,2	12471,3	1665,6	3647,1	548,5	916,0
3.1 Industrial machinery and equipment	3198,6	278,6	1034,5	1439,3	169,6	1516,3	1255,0	21453,6	938,5	1250,2
3.2 Transport equipment	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
4.1 Food and tobacco products	71133,4	540,3	5134,0	39,6	53,0	233,6	45,9	109,0	13,4	46506,2
4.2 Textil mill products	1013,1	57104,8	49593,1	1048,6	246,4	2430,4	851,5	215,4	319,4	129,6
4.3 Apparel and show	687,0	313,8	10906,5	189,2	60,9	48,0	134,0	63,1	321,0	659,9
4.4 Lumber, woods and furnitures	1616,8	182,3	214,2	12270,1	38,1	62,8	705,3	13841,6	1022,1	303,5
4.5 Paper products, printing and publishing	3033,4	428,8	1113,1	244,6	26920,7	694,8	556,7	1218,4	4537,5	370,0
4.6 Rubber and plastics	929,9	223,6	2894,2	1215,1	177,6	3756,6	1359,3	2182,5	1250,7	592,4
4.7 Miscellaneous manufacturing	48,3	17,3	386,4	34,7	23,7	44,7	2090,2	75,7	125,0	71,1
5 Construction	355,0	105,8	128,6	65,7	26,9	53,2	26,9	12,0	1553,8	840,9
6.1 Trade services	2440,0	934,2	2655,6	457,8	515,5	620,1	316,8	3554,4	10196,5	3284,9
6.2 Hotels, restaurants and bars	138,8	87,6	118,5	30,9	135,4	106,7	119,1	134,8	780,4	116,9
7.1 Railroad transpot	846,8	345,6	81,7	300,4	340,1	165,0	52,1	867,8	194,6	223,4
7.2 Land transport	4556,9	1103,5	571,8	1772,9	626,6	852,7	280,9	5645,0	3226,8	999,1
7.4 Sea transport	253,8	81,4	39,0	345,6	109,1	52,0	45,9	716,3	52,8	33,8
7.5 Air transport	15,5	7,2	10,5	5,0	14,4	6,7	5,0	11,6	23,3	6,7
7.6 Communications	175,5	93,4	133,1	58,1	58,7	40,7	33,7	273,3	1771,1	609,6
8.1 Finnacial services	813,7	392,4	441,5	269,3	290,7	152,5	129,4	897,7	3127,6	481,9
9.1 Housing to rent	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
9.2 Education and health services	154,4	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

9.4 Domestic and Firm services	4020,6	1758,2	1450,9	663,2	3218,4	1480,2	1005,8	2962,1	3507,5	2004,8
10 Public services	243,2	66,2	83,2	76,7	75,6	63,2	63,2	764,8	579,1	546,3
11 Private households	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Intermediate inputs	294365,7	81336,0	79867,5	31922,5	39371,8	26216,8	15101,0	135119,6	35919,2	79503,6
Labor input remuneration	19030,1	13689,4	20449,7	11355,6	11490,1	6533,9	5615,0	61169,0	47526,4	21599,1
Gross capital remuneration	35582,2	14935,3	20174,4	12938,1	13002,5	10177,6	2700,7	21557,6	130598,6	42993,5
Net indirect taxes	9664,9	557,0	352,6	254,2	267,3	337,5	168,5	854,6	1981,7	266,5
Gross Value Added at Productor Prices	54612,3	28624,7	40624,1	24293,8	24492,6	16711,6	8315,7	82726,5	178124,9	64592,6
TOTAL OUTPUT	358642,9	110517,7	120844,2	56470,4	64131,8	43265,8	23585,2	218700,8	216025,9	144362,8

**TABLA INPUT-OUTPUT DE 1970**

	7.1	7.2&7.3	7.4	7.5	7.6	8	9.1	9.2	9.3	9.4
At 1962 millions pesetas	Railroad Transports	Land Transports	Sea Transports	Air Transports	Communications	Rent Housing	Financial Services	Personal services	Public Services	Private households
0.1 Agriculture and cattle raising	2,2	171,7	66,8	35,2	1,4	7,2	117,8	623,7	536,0	191,1
0.2 Fishing	0,0	3,0	24,8	4,2	0,0	0,6	0,0	142,6	46,5	0,0
1.1 Energy, unless utilities	1260,2	13831,3	2733,6	1839,2	44,2	169,1	1124,9	359,9	268,9	714,7
1.2 Electric, gas and water utilities	474,3	453,0	13,1	17,2	317,6	1455,8	803,4	679,5	654,8	7162,3
2.1 Metal and non-metallic mining	0,0	0,0	0,6	0,0	0,0	0,0	0,0	0,6	0,6	0,0
2.2 Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	160,7	287,8
2.3 Nometallic minerals industry	13,6	16,0	10,4	0,8	0,8	4,0	13,6	93,0	97,0	177,9
2.4 Chemical industries	78,0	115,8	193,0	12,9	16,9	38,6	327,3	1682,6	970,5	333,8
3.1 Industrial machinery and equipment	184,3	137,8	79,2	24,1	186,8	76,2	186,0	154,1	2665,8	889,4
3.2 Transport equipment	1574,9	2094,4	1133,9	2538,3	0,0	0,0	0,0	0,0	2239,3	3105,3
4.1 Food and tobacco products	3,0	15,7	422,4	279,9	0,7	1,5	0,7	1019,5	295,5	1,5
4.2 Textil mill products	44,7	65,7	40,2	3,7	5,5	5,5	4,6	48,4	234,6	41,1
4.3 Apparel and show	34,4	40,8	118,9	24,4	5,7	40,8	22,9	209,2	227,1	138,3
4.4 Lumber, woods and furnitures	94,7	122,1	45,1	10,6	12,4	81,4	31,9	168,1	216,8	546,0
4.5 Paper products	103,2	136,6	38,9	64,3	275,5	3972,8	34,1	956,1	1783,1	3449,5
4.6 Rubber and plastics	42,8	2140,4	63,7	105,1	5,2	52,2	49,1	235,1	919,3	1246,5
4.7 Miscellaneous manufacturing	20,1	25,5	38,3	8,2	11,9	49,3	25,5	133,8	596,7	1051,6
5 Construction	128,6	307,0	14,9	26,9	72,6	622,5	2778,8	485,9	517,9	5059,7
6.1 Trade services	239,5	1954,4	427,9	338,1	22,9	289,6	207,4	674,0	818,2	1170,5
6.2 Hotels, restaurants and bars	60,7	81,5	15,7	21,9	71,9	334,3	0,0	111,2	551,2	857,4
7.1 Railroad transpot	416,4	457,7	92,6	59,9	238,9	101,2	119,1	55,3	113,6	435,9
7.2 Land transport	284,9	2634,3	3732,4	4330,2	91,6	92,3	234,7	214,0	363,1	2929,8
7.4 Sea transport	19,9	113,5	373,3	20,8	13,9	8,7	15,6	13,0	41,6	312,7

7.5 Air transport	0,6	3,3	1,1	10,0	139,8	29,4	0,0	4,4	43,8	669,9
7.6 Communications	95,1	280,9	522,6	354,8	552,5	817,1	95,6	80,4	519,9	794,8
8.1 Finnacial services	123,1	641,5	419,3	165,5	41,6	30815,8	654,5	76,0	367,6	308,4
9.1 Housing to rent	0,0	0,0	0,0	0,0	119,6	0,0	0,0	719,3	0,0	1173,5
9.2 Education and health services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	70,6	0,0	0,0
9.4 Domestic and Firm services	194,7	4736,4	287,8	498,2	274,6	757,1	571,3	407,2	5914,0	1812,6
10 Public services	10,5	218,5	44,3	36,7	15,6	132,0	198,1	56,3	249,7	0,0
11 Private households	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Intermediate inputs	5504,4	30798,7	10955,0	10831,0	2540,2	39955,0	7617,1	9473,9	21414,0	34861,9
Labor input remuneration	8185,8	28757,0	5871,0	5219,2	8123,0	21727,7	4978,7	43764,1	56564,8	84063,3
Gross capital remuneration	2508,8	40684,8	3906,2	2665,9	4554,9	-3478,1	95507,5	18439,9	79827,5	3771,6
Net indirect taxes	-1821,1	262,5	-255,0	26,7	1015,5	1447,0	0,0	-212,0	386,9	82,1
TOTAL OUTPUT	14377,9	100503,0	20477,2	18742,9	16233,7	59651,5	108103,3	71465,9	158193,2	122778,9

#### 1970 SPANISH INPUT-OUTPUT TABLE

At 1962 millions pesetas	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Fixed Capital Formation			Exports	Total Final Demand	Total Resources Consumption
				Stocks					
0.1 Agriculture and cattle raising	306978,3	65659,5	0,0	2398,2	2319,6	21192,7	91568,4	398543,8	
0.2 Fishing	7024,4	11972,9	0,0	0,0	267,7	976,4	13213,2	20237,5	
1.1 Energy, unless utilities	77866,7	24835,5	0,0	0,0	-1513,8	9031,2	32352,9	110219,6	
1.2 Electric, gas and water utilities	52035,3	37998,5	0,0	0,0	515,3	820,6	39334,5	91369,7	
2.1 Metal and non-metallic mining	49159,7	23,7	0,0	0,0	829,0	2133,2	2951,0	52088,4	
2.2 Primary transformation of metals	185665,9	0,0	0,0	2911,2	4416,7	5909,0	13219,9	198885,7	
2.3 Nometallic minerals industry	59645,1	3867,1	0,0	313,3	519,0	2213,9	6913,1	66558,2	
2.4 Chemical industries	105852,1	42073,3	0,0	0,0	7373,3	6744,4	56025,8	160730,8	
3.1 Industrial machinery and equipment	85497,1	36548,0	0,0	117422,8	2593,1	23430,3	179035,0	264395,1	
3.2 Transport equipment	64781,9	39104,4	0,0	53685,3	6242,7	16428,6	115452,9	180234,7	
4.1 Food and tobacco products	159196,0	217001,0	0,0	0,0	3585,7	26534,8	247121,0	406315,0	
4.2 Textil mill products	117316,1	16929,2	0,0	46,9	1092,9	5631,1	23699,4	141014,5	
4.3 Apparel and show	15280,0	92043,7	0,0	791,6	3126,3	9223,3	105184,7	120463,7	
4.4 Lumber, woods and furnitures	38313,7	20629,2	0,0	10888,0	1720,6	3844,2	37082,0	75392,6	
4.5 Paper products, printing and publishing	57108,0	19982,4	0,0	381,2	751,4	4759,8	25866,5	82971,4	
4.6 Rubber and plastics	34183,4	32511,2	0,0	1449,6	2151,2	3809,4	39916,9	74097,5	
4.7 Miscellaneous manufacturing	7335,9	23963,5	0,0	5177,8	1316,4	2594,9	32986,3	40321,6	
5 Construction	16043,0	2806,8	0,0	161904,2	0,0	1027,8	165738,9	181781,9	

6.1 Trade services	43960,5	141264,6	0,0	5163,6	0,0	0,0	146428,2	190388,7
6.2 Hotels, restaurants and bars	5490,2	115730,7	0,0	0,0	0,0	0,0	115730,7	121220,9
7.1 Railroad transpot	9987,5	4873,1	0,0	527,7	0,0	430,4	5831,3	15881,3
7.2 Land transport	47044,1	52437,0	0,0	4437,2	0,0	5333,4	62207,6	109251,7
7.4 Sea transport	5718,9	3352,7	0,0	766,5	0,0	17087,3	21206,5	26925,3
7.5 Air transport	1143,5	10419,3	0,0	271,7	0,0	4850,8	15541,8	16685,3
7.6 Communications	8295,8	6749,1	0,0	0,0	0,0	477,0	7226,1	15521,8
8.1 Finnacial services	44471,5	6373,7	0,0	228,1	0,0	1141,4	7743,2	52214,8
9.1 Housing to rent	2012,4	95418,6	0,0	0,0	0,0	0,0	95418,6	97431,0
9.2 Education and health services	630,1	17720,8	36523,1	0,0	0,0	0,0	54243,9	54874,0
9.4 Domestic and Firm services	64301,1	48705,6	0,0	3341,3	0,0	2115,7	54162,6	118463,7
10 Public services	4652,5	2291,2	65077,1	0,0	0,0	0,0	67368,2	72020,7
11 Private households	0,0	6756,8	0,0	0,0	0,0	0,0	6756,8	6756,8

**TABLA INPUT-OUTPUT DE 1975**

	at 1970 millions pesetas	0	0.2	1.1	1.2	2.1	2.2	2.3	2.4	3.1	3.2
		Agriculture Cattle raising	Fishing	Energy,not Electricity	Electricity, gas, water	Metal and non metal	Primary transformat	Nonmetallic Minerals	Chemical Industry	Machinery and equip.	Transport equipment
0.1 Agriculture and cattle raising	133231,6	7,7	15,5	10,7	60,2	10,7	343,3	2295,9	22,1	9,6	
0.2 Fishing	0,0	70,7	0,0	0,0	0,0	0,0	0,0	93,3	0,0	0,0	
1.1 Energy, unless utilities	17941,6	4913,7	63313,0	20915,3	926,3	15753,9	7528,1	10833,7	1989,5	787,9	
1.2 Electric, gas and water utilities	5481,5	19,3	1516,4	10729,9	1246,7	9254,8	5275,7	7205,6	7465,4	2417,4	
2.1 Metal and non-metallic mining	482,7	77,2	80,4	25,1	176,8	25681,6	9510,5	12745,7	515,2	2,6	
2.2 Primary transformation of metals	50,1	28,3	869,0	264,3	83,6	100446,7	2123,0	1872,8	87299,5	32949,0	
2.3 Nometallic minerals industry	175,3	9,4	14,1	551,0	0,0	1611,9	24069,7	2464,4	1521,3	1200,2	
2.4 Chemical industries	26376,0	216,7	1691,3	379,2	1200,4	2086,9	2143,0	90638,7	4483,3	1941,7	
3.1 Industrial machinery and equipment	5524,1	324,1	1341,4	881,7	534,9	2894,0	1120,7	2127,7	97508,8	36296,0	
3.2 Transport equipment	195,3	488,1	115,3	157,1	67,9	2553,1	251,1	164,1	459,9	62640,2	
4.1 Food and tobacco products	58836,2	526,8	11,2	8,9	4,1	14,8	216,6	6526,3	35,5	14,8	
4.2 Textil mill products	950,3	902,5	3,5	0,0	56,5	12,6	141,6	710,0	1179,0	1659,1	
4.3 Apparel and show	428,3	255,0	25,4	25,4	35,6	81,6	48,3	43,5	97,7	460,4	
4.4 Lumber, woods and furnitures	1398,2	301,5	102,4	61,2	70,2	74,1	326,7	389,4	2973,2	2128,9	
4.5 Paper products, printing and publishing	787,8	21,8	82,3	420,4	45,3	256,3	2694,5	5599,7	2202,4	528,0	
4.6 Rubber and plastics	1995,0	190,0	97,7	55,7	68,8	228,7	153,4	3920,5	6593,3	8448,1	
4.7 Miscellaneous manufacturing	35,4	12,3	15,9	43,3	15,9	26515,2	70,7	728,4	5353,2	1829,5	
5 Construction	1869,3	6,9	143,9	282,3	40,3	304,5	298,5	467,9	523,9	358,7	
6.1 Trade services	8836,5	360,6	642,2	1389,4	351,1	2076,7	2032,1	3972,0	7685,7	4180,4	
6.2 Hotels, restaurants and bars	143,4	5,6	36,1	184,5	6,7	247,8	232,8	733,5	690,7	318,4	
7.1 Railroad transpot	1042,4	15,4	312,1	508,6	94,6	1316,4	694,1	769,7	755,6	384,5	
7.2 Land transport	5422,5	702,2	1101,7	1533,7	331,5	3280,9	5583,7	5496,1	5501,7	2115,2	
7.4 Sea transport	295,4	46,1	714,5	900,8	73,0	1166,4	1009,9	824,3	617,0	275,0	
7.5 Air transport	17,3	8,2	9,0	16,4	2,5	71,5	43,5	137,2	93,7	73,1	
7.6 Communications	266,7	63,9	129,1	212,6	86,3	282,8	251,9	625,3	893,3	421,1	
8.1 Financial services	1291,3	187,3	575,8	533,6	242,0	737,7	917,9	1106,1	2092,0	1124,0	
9.1 Housing to rent	360,4	7,4	169,7	96,6	9,9	17,3	65,0	400,0	363,5	33,4	
10 Other services	3191,3	365,5	688,8	1280,3	237,6	2126,2	1423,1	8922,4	5247,1	4004,3	
Intermediate inputs	276625,8	10134,49	73817,75	41468,02	6068,525	199105,1	68.570	171.814	244163,4	166.602	
Labor input remuneration	77110,51	16588,5	12866,1	16904,8	8467,2	22718,4	22150,4	25901,7	103972,2	68636,8	

Gross capital remuneration	239107,0	12170,5	17968,4	55094,5	11466,5	32866,2	23432,5	45815,8	42999,1	46819,7
Net indirect taxes	-11141,1	-6447,5	64620,1	-1335,8	451,9	-1303,5	2013,2	4423,2	7701,7	-286,6
Gross Value Added at Factor Prices	316217,5	28759,0	30834,5	71999,3	19933,7	55584,6	45582,9	71717,5	146971,3	115456,5
TOTAL OUTPUT	581702,2	32446,1	169272,4	112131,6	26454,1	253386,2	116165,9	247954,9	398836,3	281771,6

### TABLA INPUT-OUTPUT DE 1975

at 1970 millions pesetas	4.1	4.2	4.3	4.4	4.5	4.6	4.7	5	6.1	6.2
	Food and tobacco	Textil mill products	Apparel and show	Lumber, woods ...	Paper products	Rubber, plastics	Miscellaneous	Construction	Trade	Hotels, restaruant
0.1 Agriculture and cattle raising	307675,1	5425,8	631,0	12302,1	5130,1	272,9	98,3	150,8	129,9	23628,7
0.2 Fishing	5009,1	0,0	0,0	0,0	0,0	0,0	256,3	0,0	0,0	3786,5
1.1 Energy, unless utilities	3271,2	436,3	175,1	227,5	1563,6	612,7	94,1	4427,1	350,6	906,2
1.2 Electric, gas and water utilities	3600,2	1999,9	1112,1	1268,6	2559,9	1201,4	541,4	2301,5	4355,4	7291,6
2.1 Metal and non-metallic mining	579,2	6,6	2,0	0,0	147,1	117,4	51,5	9009,2	15,2	2,6
2.2 Primary transformation of metals	3594,5	11,3	66,6	276,4	248,7	826,2	7025,1	71990,6	0,0	0,0
2.3 Nometallic minerals industry	4345,6	93,2	68,6	991,3	35,8	35,2	662,5	71914,2	93,2	1182,8
2.4 Chemical industries	5284,8	15998,6	3718,8	1976,5	4411,0	27805,9	3094,6	8321,2	782,5	1361,6
3.1 Industrial machinery and equipment	4950,3	679,2	1762,5	2024,9	748,6	1980,8	4080,8	51317,6	1454,7	1445,3
3.2 Transport equipment	571,6	71,5	153,5	179,0	85,6	73,6	111,8	632,5	3282,6	1117,1
4.1 Food and tobacco products	132345,0	401,2	6072,2	114,9	69,3	124,3	151,7	202,4	24,3	70390,0
4.2 Textil mill products	833,3	46360,9	49183,9	1143,2	159,7	5370,0	681,3	279,7	562,1	174,3
4.3 Apparel and show	189,7	265,3	22720,1	242,3	48,3	65,9	253,0	99,1	507,6	2381,3
4.4 Lumber, woods and furnitures	1812,4	167,5	605,7	18429,9	61,9	104,4	982,6	21681,8	1788,7	317,7
4.5 Paper products, printing and publishing	6266,5	376,3	1835,4	333,4	65558,9	950,1	862,5	2037,2	8105,1	780,8
4.6 Rubber and plastics	1832,5	196,1	5127,2	1606,7	411,1	5837,7	1338,2	5401,3	2683,7	754,1
4.7 Miscellaneous manufacturing	117,6	43,3	1397,2	42,6	4658,6	320,4	6724,0	1036,4	498,7	97,4
5 Construction	530,8	121,3	119,4	142,1	56,5	115,7	61,6	445,2	3407,7	1371,8
6.1 Trade services	6300,6	4895,3	9105,9	1794,6	1744,7	2133,4	1104,1	11276,4	20152,2	7345,8
6.2 Hotels, restaurants and bars	208,9	131,7	222,8	92,8	143,4	277,8	151,7	460,7	2228,3	260,1
7.1 Railroad transpot	1263,6	276,4	232,8	518,5	563,3	224,2	117,9	1299,8	267,8	414,6
7.2 Land transport	11465,2	1841,6	2620,8	5119,7	3073,0	1583,7	737,6	16820,8	7697,2	2374,2
7.4 Sea transport	463,5	58,4	99,2	699,9	184,5	94,0	117,9	1770,0	201,4	29,8
7.5 Air transport	59,2	36,2	48,5	24,7	29,6	27,9	13,1	109,3	318,0	46,8
7.6 Communications	520,7	176,8	345,3	187,4	141,8	141,8	96,1	776,1	5170,5	1931,2
8.1 Finnancial services	1646,4	888,7	1164,5	733,1	650,5	395,9	321,3	2352,3	6135,3	952,1

9.1 Housing to rent	239,7	154,8	382,1	356,1	141,8	214,9	53,3	862,0	99,1	100,3
10 Other services	6411,5	882,0	2595,3	965,5	3457,2	3442,5	1101,5	13636,6	8359,8	6060,9
Intermediate inputs	511388,9	81996,11	111568,5	51793,2	96084,28	54350,85	30885,81	300611,8	78671,36	136505,5
Labor input remuneration	46522,4	27424,36	44391,5	28800,31	28104,63	17683,01	14931,88	143737,0	106871,2	56964,3
Gross capital remuneration	62561,0	18686,74	31878,39	16776,15	24690,31	13542,18	19654,84	58819,7	287796,7	63303,1
Net indirect taxes	29703,2	1207,201	1228,508	1219,691	5417,34	422,4835	2005,143	10024,98	-4912,56	933,1
Gross Value Added at Factor Prices	109083,3	46111,1	76269,89	45576,47	52794,94	31225,19	34586,72	202556,7	394668,0	120267,4
<b>TOTAL OUTPUT</b>	<b>650175,4</b>	<b>129314,4</b>	<b>189066,9</b>	<b>98589,36</b>	<b>154296,6</b>	<b>85998,52</b>	<b>67477,67</b>	<b>513193,5</b>	<b>468426,8</b>	<b>257706,1</b>

**TABLA INPUT-OUTPUT DE 1975**

At 1970 millions pesetas

	7.1	7.2 y 7.3	7.4		7.5	7.6	8	9.1	10	
			Railroad Transports	Land Transports						
0.1	Agriculture and cattle raising		3,0	141,3	72,1	3,0	3,6	47,1	245,6	4857,2
0.2	Fishing		0,0	4,5	37,6	6,0	0,0	0,0	0,0	347,1
1.1	Energy, unless utilities	1530,8	20611,5	6505,8	3859,8	203,6	322,0	1261,9	3050,3	
1.2	Electric, gas and water utilities	699,3	689,9	8,0	57,3	330,3	3087,4	1367,9	8665,4	
2.1	Metal and non-metallic mining	0,0	0,0	0,7	0,0	0,0	0,0	0,0	4,0	
2.2	Primary transformation of metals	0,0	0,0	0,0	0,0	0,0	0,0	0,0	372,7	
2.3	Nometallic minerals industry	79,1	34,0	15,8	0,6	2,9	11,1	40,4	459,5	
2.4	Chemical industries	407,9	305,6	296,0	76,7	27,5	166,4	388,9	11914,8	
3.1	Industrial machinery and equipment	192,7	291,4	140,7	25,7	589,2	220,2	490,5	2617,9	
3.2	Transport equipment	1693,0	30333,7	2065,8	3975,2	63,7	63,7	241,2	10363,9	
4.1	Food and tobacco products	3,6	32,0	983,8	355,3	1,2	1,8	1,8	3767,0	
4.2	Textil mill products	32,8	29,3	67,0	6,3	5,6	23,0	14,6	295,0	
4.3	Apparel and show	36,3	41,1	105,1	39,3	10,9	54,4	29,0	394,0	
4.4	Lumber, woods and furnitures	126,9	108,9	23,2	17,4	10,3	81,8	34,1	542,5	
4.5	Paper products, printing and publishing	167,0	246,3	78,8	126,4	503,9	7762,9	84,1	8462,6	
4.6	Rubber and plastics	68,0	2759,2	68,8	180,9	10,1	139,7	63,0	2219,0	
4.7	Miscellaneous manufacturing	11,5	33,2	20,9	7,9	24,5	95,3	44,7	2005,0	
5	Construction	837,7	386,9	31,9	60,6	190,7	2125,7	5782,8	10447,1	
6.1	Trade services	440,2	4556,9	710,1	639,0	68,4	720,2	452,9	6406,6	
6.2	Hotels, restaurants and bars	119,5	207,3	25,6	60,0	110,0	595,7	15,6	3314,6	
7.1	Railroad transpot	1379,1	1137,0	105,7	73,7	753,1	177,5	113,6	1222,4	
7.2	Land transport	216,3	0,0	4698,3	8527,5	186,5	344,9	415,7	5475,8	
7.4	Sea transport	43,8	531,8	415,6	23,4	171,6	30,9	22,8	384,1	
7.5	Air transport	8,2	17,3	10,7	102,7	667,2	306,5	14,8	1983,6	
7.6	Communications	178,9	1211,9	842,1	617,5	1120,0	3915,1	202,8	5572,6	
8.1	Financial services	262,9	2689,0	809,0	566,6	80,5	5773,1	1742,7	1671,0	
9.1	Housing to rent	0,0	676,9	315,8	205,0	44,0	964,8	0,0	3667,9	
10	Other services	570,7	3022,8	613,7	1016,8	259,0	5255,4	1954,9	33766,2	
	Intermediate inputs	9108,971	70099,69	19068,52	20.631	5.438	32.287	15026,46	134250,1	
	Labor input remuneration	14854,8	60361,6	10665,4	8429,3	19745,4	82015,4	12960,7	362272,4	

Gross capital remuneration	4870,3	56993,7	9799,1	5177,9	15347,8	-51083,2	170953,8	145361,5
Net indirect taxes	-9032,3	-3564,3	-3998,5	-1510,7	1300,5	9352,7	354,2	-4034,5
Gross Value Added at Factor Prices	19725,1	117355,4	20464,5	13607,3	35093,2	30932,3	183914,5	507633,9
<b>TOTAL OUTPUT</b>	<b>19801,8</b>	<b>183890,7</b>	<b>35534,5</b>	<b>32727,3</b>	<b>41832,2</b>	<b>72571,6</b>	<b>199295,1</b>	<b>637849,5</b>

**TABLA INPUT-OUTPUT DE 1975**

at 1970 millions pesetas

	Intermediate Consumption	Domestic Consumption	Public Consumption	Gross Fixed Capital Formation	Stocks	Exports	Total Final Demand	Total Resources Consumption
0.1 Agriculture and cattle raising	496811,4	122552,7	0,0	11688,1	5821,6	30805,2	170865,6	667673,6
0.2 Fishing	9599,2	21950,9	0,0	0,0	206,7	1890,7	24048,4	33647,5
1.1 Energy, unless utilities	180871,5	51180,0	0,0	0,0	-12218,5	15535,7	54608,6	232024,1
1.2 Electric, gas and water utilities	91750,1	49088,3	0,0	0,0	534,8	450,2	50073,3	142453,5
2.1 Metal and non-metallic mining	58871,7	74,5	0,0	0,0	-906,8	2958,0	2125,7	60967,6
2.2 Primary transformation of metals	310310,9	0,0	0,0	4855,2	-4393,4	25868,1	26329,8	336629,4
2.3 Nometallic minerals industry	111682,7	6467,8	0,0	1069,5	2532,2	9265,0	19355,3	131038,0
2.4 Chemical industries	217444,1	58374,3	0,0	0,0	11593,6	13215,9	83182,6	300611,0
3.1 Industrial machinery and equipment	223519,6	71198,4	0,0	216515,2	7141,4	48402,8	343144,6	566646,5
3.2 Transport equipment	122142,2	141900,3	0,0	69353,6	7102,2	40899,9	259245,3	381385,1
4.1 Food and tobacco products	281142,4	361275,0	0,0	0,0	13518,1	30525,0	405314,7	686430,8
4.2 Textil mill products	110825,5	44950,8	0,0	333,4	4257,6	10995,9	60537,2	171359,7
4.3 Apparel and show	28982,6	145735,0	0,0	1253,1	400,6	24141,4	171530,0	200510,1
4.4 Lumber, woods and furnitures	54688,7	41438,4	0,0	15865,4	974,9	6187,5	64465,9	119146,2
4.5 Paper products, printing and publishing	117171,2	46625,8	0,0	3856,8	2976,7	9509,7	62968,3	180139,3
4.6 Rubber and plastics	52410,1	45245,2	0,0	4231,9	3087,5	12311,6	64874,2	117283,8
4.7 Miscellaneous manufacturing	51760,3	42440,1	0,0	22542,9	1965,2	5358,0	72234,6	123990,4
5 Construction	30531,8	9445,6	0,0	405430,6	0,0	495,7	415371,9	446323,3
6.1 Trade services	111374,0	325653,1	0,0	12678,1	0,0	0,0	338331,1	449705,1
6.2 Hotels, restaurants and bars	11225,8	245362,3	0,0	0,0	0,0	0,0	245362,3	256588,1
7.1 Railroad transpot	16034,8	7167,5	0,0	1665,3	0,0	1667,8	10500,6	26535,4
7.2 Land transport	107603,9	81433,7	0,0	9645,5	0,0	7503,9	98583,1	206187,1
7.4 Sea transport	11265,0	6705,8	0,0	1519,6	0,0	25591,4	33864,0	45081,7
7.5 Air transport	4296,6	36342,6	0,0	669,7	0,0	14961,4	51973,7	56270,3
7.6 Communications	26381,8	27616,8	0,0	0,0	0,0	1430,9	29047,7	55429,5
8.1 Financial services	37642,3	20509,8	0,0	2470,0	0,0	8690,3	31670,1	69312,4
9.1 Housing to rent	10175,3	203443,2	0,0	0,0	0,0	100,9	203544,1	213946,2
10 Other services		218892,5	160648,5	11523,3	0,0	3138,2	531710,0	652568,9