Riqueza Nacional de España; estudio conmemorativa del cincuentenario de la Universidad Comercial de Deustó. Bilbao; 1968; 5 vol.

The "Universidad Comercial de Deustó (Bilbao, Spain), in commemoration of its 50th year of existence, has published a study of the National Wealth of Spain. The five books which describe the results of this study cover 3,300 pages, a figure which illustrates the effort that must have gone into the work; over a period of three years some 250 economists and technicians took part. The work was organized in such a way that various teams, each under its own director, were charged with the compilation of estimates for specific parts of the national capital, while coordination was pursued in a great number of meetings.

Such a method has some advantages. Each sector can be handled by specialists in the field, while the large number of participants guarantees that few sources of information will be overlooked. There are also disadvantages. The making of estimates of national wealth components is a difficult job at best, requiring considerable skill in the handling of statistics, while the rather overwhelming mass of information produced hardly allows any control or checking by the co-ordinators. Another problem is that it is hardly possible to obtain a homogeneous presentation from the various contributors. Some of these difficulties will be discussed more specifically.

Part I of the series stands apart and has no relation to the rest of the study. It covers:

- Historical survey of concepts and methods
- Historical survey of the work on National Wealth estimates
- Description of the calculations in selected countries
- A bibliography
- Description of previous Spanish estimates
- An article on the Cobb-Douglas function.

It is surprising that in this whole introductory volume no mention is made either of the concept or concepts used throughout the study or of the valuation that is sought. Apart from this, the reader is introduced to the subject in a very thorough manner, revealing that the book was written in a place of study.

The description of calculations in selected countries is rather short and not quite balanced, some countries could have been left out without harm. The Bibliography on the whole is quite complete and Spanish readers will appreciate the short comments on most of the books and articles. Of the eight volumes of the Bibliography of Income and Wealth of the International Association, only the first volume is mentioned. Morgan's book on the structure of property ownership in Great Britain is not mentioned. The 1952 estimates for the Netherlands which foreshadow the structure of the financial accounts in the present S.N.A., are mentioned but taken from Agostinelli, although they are described by Dutch authors in Income and Wealth, Series VIII, which is mentioned in the Bibliography. Nor is the United Nations study "El desequilibrio externo en el desarollo economico Latino-Americano" mentioned. However, these omissions do not really detract from the general impression given above.

### CONCEPTS

The concept of National Wealth used in the study can be derived from the tables given in part V. Included are fixed assets and stocks, land, and consumer durables. The value of sub-soil assets is not included, nor is the value of works of art (although in part V, twelve quite interesting pages are dedicated to a brief summary of the history of Spanish art). No effort is made to correct for the net-claims by residents against the rest of the world. The coverage aimed at seems quite complete; however, roads other than State—and provincial roads have been left out.

The valuation which in all parts of the study is aimed at is the written-off replacement cost; where this could not be obtained directly an approximation is used.

It is interesting to note that the coördinating group, apart from giving directions about the method of valuation and the field to be covered seems to have added two questions: (1) regional detail, and (2) complete balance-sheets. The regional detail explains in part why the publication covers so many pages: in many parts of the study, full details are given for 50 provinces. In all, the regionally divided totals cover about 70 percent of total wealth.

Part of the discussion that must have been going on between co-ordinators and authors on this subject becomes evident from the text on the merchant navy: here the author states emphatically: "la mer no sabe de localismos" (the sea knows no regions). This author seems to have had more problems with the co-ordinators: he insists that in his valuation he estimates the life-time of a ship at 20 years, although 33 percent of the Spanish fleet is older. Also, balance sheets have been given for several branches, but—probably because those for agriculture and dwellings were not available—no effort has been made at presenting a summary.

The division of the field between groups of authors seems to have given few problems. The estimates of the value of sea-going shipping include (1) ships under construction, which are also carried under ship-building, and (2) sea-going ships run by enterprises in manufacturing.

The duplication mentioned under (1) has been noted and eliminated in the summary, but that under (2) seems to have gone unnoticed. This, however, is a minor point.

The classification of assets in various parts of the publication is not uniform: in many cases it gives all that can be wished for, in other cases, however, a bare minimum (fixed assets and stocks) is given.

No effort seems to have been made to set a standard for the calculation of the value of depreciation allowances. For agricultural machinery these figures are given (Part II, page 28):

Age in years	percentage		
< 3	20		
<b>3</b> −< 7	40		
7-<12	70		
12 and more	90		

For ships and dwellings a linear scale is accepted (Part II pages 246 and 636). For consumer durables the depreciation allowance is set at 6.1 percent each year over the residual from the previous year (Part V, page 486). In large parts of the publication no mention is made of the method followed in this respect.

# **Methods**

In general, the figures produced are based on calculations with and combinations of existing figures.

In a few cases enquiries specifically made for this study are mentioned; one covers the most important enterprises in manufacuring industries. No further information on this enquiry is given, but the text adds that in most branches its results were unsatisfactory. The expert knowledge of some of the authors appears very clearly in some cases: the value of all the large or relatively new ships of the Spanish merchant navy seems to have been found by estimating the value of every ship individually, for instance.

## PRESENTATION

The presentation of the results varies considerably between authors. In manufacturing—admittedly a difficult field—large parts of the texts are devoted to interesting but strictly speaking irrelevant introductions about production, value added and personnel, while in many cases the description of the method of valuation of the assets is limited to a few sentences, mentioning some ratios and the obvious calculation in

which these are applied. In most cases the source of the ratios remains obscure. An interesting and not unimportant example is electricity producers. Here "direct information is obtained from 26 enterprises". What the information is, how the figures—that normally are not found in the books of the enterprises—have been obtained is not stated at all. One simply must accept the results at face value. This is mentioned because other authors describe their procedures in great detail, and that description offers possibilities for criticism (part of which is given here) while those with vague descriptions escape such exposure.

## Some Specific Problems

a. The value of dwellings. The largest single item in the national wealth of Spain is the value of dwellings. Here, the description is quite detailed. It also contains an interesting proposition, but—alas—the compilation itself seems not quite satisfactory.

This calculation can be divided into two parts: one for the value of the buildings and the other for the value of the land under the building.

The first contains one rather dubious part; the value at current prices for newly built houses is first given for two periods and—on the basis of a general price-index—calculated for three other periods. In a second phase of the compilation these values are given in 1965—prices by applying the same price-index, this time for all the periods.

These are the reconstructed figures for urban areas:

Period -		Value <sup>1</sup> at rices (ptas)	Price Index	Value at 1965-prices
	Taken from Building Statistics	Calculated	(1965 = 100)	(ptas)
Before 1860 1860–1910 1911–1940 1941–1960 1961–1965	130,925 183,991	7,491 <sup>2</sup> 11,238 20,724 —	4176.461 2784.307 1509.800 238.987 113.150	312,894 312,894 312,894 312,894 <sup>3</sup> 208,186

<sup>&</sup>lt;sup>1</sup>building and land

The figures in the column "calculated" are so near to those in the publication (7489-11233-20716) that the difference can be neglected.

The calculation then goes on:

Period	Value at 1965- prices (ptas)	Value of the Con- struction (84%)	Depr.%	Value After Depreciation	Published <sup>1</sup>
Before 1860	312,894	262,831	79.07	55,011	54,992
1860-1910 1911-19 <b>5</b> 0	312,894 312,894	262,831 262,831	57.14 28.51	112,649 187,898	112,605 187,819
1941–1960	312,894	262,831	10.71	234,681	234,682
1961–1965	208,186	174,876	1.79	171,745	171,746

<sup>&</sup>lt;sup>1</sup>Part II, page 319.

 $<sup>^{2}312,894:41.76461=7491</sup>$ 

 $<sup>^{3}130,925 \</sup>times 2.38987 = 312,894$ 

If the figures are presented in this way it becomes clear that the cost of building a house according to the housing statistics (first table, first column) rose from 130,925 ptas to 183.991 ptas or 40-45 percent between 1941-1960 and 1961-1965.

According to the general price-index that was used to revalue the dwellings built in

1941-1960 however the rise was from 100 to 
$$\frac{238.987}{113.150} \times 100 = 211$$
 or 111 percent.

In principle this difference could be explained by a higher quality for the older houses, but the margin between the two figures (40 percent versus 11 percent) seems to be too large for that. The influence of the choice made here on the value of dwellings is  $250 \times 10^9$  ptas, at a maximum.

If this part of the compilation gives rise to one question, that on the value of the land under the buildings raises more doubts.

The first step for the calculations is an interesting one which can best be explained with a table. First, the area covered by dwellings is compiled for each period:

Devellings Constructed in	1	Area Covered		
Dwellings Constructed in	(Has.)	Index		
1961–1965	7,125	100		
1941–1965	14,529	204		
1911–1965	20,233	284		
1861-1965	24,470	343		
All dwellings existing	27,835	391		
in 1965				

The index thus obtained now is supposed to give the extra increase in value of the land under dwellings (relative to the increase in value of the construction). There seems to be no reason why the relationship should be as 1:1, but even so the idea is ingenious. The next step in the calculations is mysterious: the index given above is applied to a percentage of 16, which stands for the value of land as a percentage of the total value of newly built dwellings, and the figure obtained is supposed to be the corresponding percentage in 1965:

Dwellings Constructed:	Index	Corrected Percentage Value of Land of Total Value
1961–1965	100	16
1941-1960	204	32.6
1911-1940	284	45.4
1860-1910	343	54.9
Before 1860	391	62.5

Two facts seem to have been forgotten here; first if a percentage changes, the sum of the new figure and the rest of the original 100 (84 in this case) does not equal 100 anymore. Secondly, the construction-part of the dwelling loses value through depreciation. It seems incorrect therefore to apply the corrected percentage given above to the depreciated value of the construction in order to obtain the value of the land. Using figures (including the index given above) from the publication a very simple alternative calculation can be made, that runs as follows:

Period of Construction	Value at 1965- prices (1965 = 100)	Index	Density (Dwellings per ha.)	Value of the Land per Dwelling (3:4)	Do, 1965 = 32,713 ptas.	Corresponding Figures from the Publication
1	2	3	4	5	6	7
Before 1860 1861–1910 1911–1940 1941–1960 1961–1965	100 100 100 100 100	391 343 284 204 100	200 200 220 180 125	1953 1717 1290 1130 800	80,000 70,200 52,600 46,000 32,713	91,614 137,295 156,298 113,614 32,713

The differences between this alternative calculation and the published one are rather large. If the same calculation is made for rural dwellings and the averages obtained are multiplied by the number of dwellings the results are:

	Calculation Given Here in ptas.	Publication
Urban zone	270	555
Rural zone	95	96
	<del></del>	
Total	365	651

A difference therefore of  $286 \times 10^9$  pts.

It is not impossible that the whole or part of the analysis on which this alternative is based, is wrong. It seems important that the authors of this part of the study have given a description of their work that makes analysis, criticism and discussion possible. In that way, and in that way only, the immense work done on the publication of the Universidad Comercial de Deustó can form the basis for further work.

- b. Inventories of wholesale and retail trade. In the estimates for 1965, the inventories in the hands of wholesale and retail trade seem to have been left out of the compilations altogether. At the end of Part V however a chapter is devoted to an estimate of the National Wealth in 1967; in this chapter a figure (203  $\times$  10 $^{9}$  pesetas) has been added for these stocks.
- c. Consumer durables. The definition of consumer durables is taken from the O.E.C.D.-system of National Accounts; it covers furniture, glassware, tableware and household utensils, heating and cooking appliances, refrigerators, washing machines and similar appliances, wireless and television sets, gramophones, records, watches, pianos, organs, sewing machines, baby-carriages. The estimates are based on statistics of the expenditure by households, coupled with the supposition that the length of life of the items mentioned is 50 years. Even for the rather durable items mentioned this seems rather long; actually the system of depreciation used (see above) results in very low values for the older objects: the value of the consumer durables purchased in 1956–1965 covers 75 percent of the total.

### Results

It seems useful to give a summary of the results obtained by the study. National Wealth of Spain (31-12-1965; 10° pesetas)

Agriculture land, crops, machinery, buildings, animals	1,277
Fishing	32
Mining and quarrying	27
Manufacturing, construction	881
Electricity, gas, water	285
Wholesale and retail trade, restaurants and hotels	278
Transport and communication (roads included)	317
Finance, insurance	53
Community, social and personal services	776
Dwellings	1,817
Consumer durables	702
Total	6,670

# C. A. OOMENS

Netherlands Central Bureau of Statistics