



# **National Accounting of Spain**

## **Base 2008**

### **Methodological characteristics**

Madrid, October 2011

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## Introduction

The National Statistics Institute (*INE*) draws up the Spanish National Accounts (*CNE*) in accordance with the methodological rules of the European System of National and Regional Accounts of 1995 (ESA95), which came into force in the European Union through a Regulation of the Council and is, therefore, compulsory for all the Member States of the European Union.

This basic standard was introduced in 1999 in a transversal manner in all the member states of the European Union (EU), and has to be adopted, at the time of incorporation, by the States that have subsequently joined the EU. Hence, it can be said today that the 27 States belonging to the European Union have adopted this regulatory system for the preparation of their economic accounts. Moreover, ESA95 is fully consistent with the methodological standard of the United Nations, the 1993 System of National Accounts (SNA), currently used by most countries in the world.

Since its adoption, ESA95 has incorporated amendments to its methodology that, clearly, have not affected the essential elements, concepts and definitions of the system. These amendments have been approved by Regulations of the European Parliament and of the Council, and have aimed to improve the reliability, exhaustiveness and comparability of the results of the national accounts of the European countries.

In 1999, when ESA95 was fully adopted, *INE* drew up the so-called base 1995 for the Spanish National Accounts (*CNE-95*), the characteristics of which were defined by the new methodology. It replaced the previous accounting base of 1986, which had been based on the 1979 Manual (ESA79).

Subsequently, in May 2005, *INE* changed the accounting base for its national accounts to the year 2000, with methodological innovations (the assigning of Financial Intermediation Services Indirectly Measured, FISM, to the sectors and industries using these services) and important statistical changes such as, for example, the incorporation of data from the Population and Housing Census of 2001. The *CNE* base 2000 has been in force until the summer of 2011, when it has been revised to give way to the new base 2008.

In this way, the national accounts have to be updated regularly by changing the base year, in a way that methodological and statistical changes are incorporated, which are conducive to maintaining the relevance of these statistics, by taking into account, especially, the technological progress and structural changes in the economy. By incorporating these changes, the national accounts will provide an accurate estimate, at any moment, of the country's economic reality.

One of the core elements of the basic methodology in the national accounts is the classification of activities and products. These classifications, also used by the sources of both short-term and structural statistical information, must be fully updated to incorporate the structural changes in the economy. The adoption, by National Accounts, of the new classification of activities and products approved within the European Union is the methodological innovation for the new base 2008 of the *CNE*. The following section of this note details the main changes in the national accounts, due to this methodological modification.

This same section also gives details of an innovative aspect of base 2008, regarding the breakdown of the investment in fixed capital, which will now be estimated according to a new classification of assets, rather than as previously by products.

Therefore, it should be pointed out that the change of base of the national accounts, with regard to the methodological change of the classifications of activities and products, as well as of assets, has been carried out in a transversal way in all the Member States of the European Union, given that it stems from the application of a Community Regulation.

The final section of this note is a detailed description of the main statistical changes that are incorporated in the new base 2008. Some of these have been produced as a consequence of the application of the cited Regulation and others are, merely, improvements that the *CNE* has incorporated to give greater accuracy to its estimates.

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## **Methodological changes. New classifications of activities and products. Classifications of fixed assets**

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### GENERAL CHARACTERISTICS

When changing an accounting base, methodological changes are those that concern core elements of the system of accounts and that are incorporated in a transversal way by all States, in order to maintain international comparability of the results of the economic accounts.

Classifications are a core element of ESA95. Hence, the methodological innovation incorporated into the new base 2008 of the Spanish National Accounts (*CNE*) is the modification of the classifications of activities and products, to make them compatible with those already used in short-term and structural statistical operations. In addition, a classification of fixed assets is incorporated into the system, which will affect the dissemination of data for gross fixed capital formation.

This regulatory change has been made in a transversal way in all the Member States of the European Union, due to the application of Regulation 715/2010 of the Commission, of 10<sup>th</sup> August 2010, *which amended Regulation (CE) 2223/96 of the Council as regards adaptations following the revision of the statistical classification of economic activities NACE Revision 2 and the statistical classification of products by activity (CPA) in national accounts.*

The previous base 2000 of the *CNE* used the NACE revision 1.1 classification of activities, consistent in Spain with the National Classification of Economic Activities (*CNAE-93*) and its associated classification of products by activities, CPA. These classifications were those in force when the first estimates of base 2000 were published.

However, in December 2006, the European Union adopted a Regulation (of the European Parliament and of the Council, Number 1893/2006) by which a revised classification of economic activities was established, called NACE revision 2 (hereinafter referred to as NACE Rev. 2). This new classification must be used for the drawing up of statistics throughout the European Union. In Spain, the version of that new classification is adopted under the name of *CNAE-2009*.

In a similar way, two years later, a new Regulation of the European Parliament and of the Council, Number 451/2008, established a revised classification of products by activity, CPA-2008, in agreement with the new classification of activities.

Incorporation of these classifications to national accounts provided a justification for changing the accounting base in all the States of the European Union.

In Spain, the process of adapting official statistics to these new classifications began in 2007. Hence, when the Regulation that established NACE Rev. 2 as the classification of activities was adopted, the Central Companies Directory (*DIRCE*) introduced in 2007 a new system of codes for companies, in agreement with the new classification.

With the new information incorporated into the *DIRCE*, the Structural Statistics for Companies (the Industrial Companies Survey, the Survey on the Structure of the Construction Industry, and the Annual Services Survey) corresponding to 2008 were collected in agreement with NACE Rev. 2.

In 2009, the estimates for short-term indicators of activity were available in the new classifications of activities and products. Finally, in 2011, after the new classifications were incorporated into the statistical sources for the accounting base, the process of adapting the economic accounts was completed.

Given that the structural statistics, a basic source for estimating the structures of the economic accounts, were available for the first time (in the new classifications) for the year 2008, this year has been chosen as the new accounting base of the national accounts. It must be pointed out that there is no direct correspondence with the previous classification of activities, as in the old classification, there were industries classified as industrial activities that have now been moved and form part of services or vice versa, and there were even activities in services in the old classification that now form part of construction, such as Real estate activities, as well as other services linked to the sale of housing. Therefore, it is not going to be possible to compare the results of the old estimates with those of the new ones.

To make it easier for the user to conduct analysis with the new results, series from the financial year 2000 have been estimated, for the national accounts, and from the first quarter of 2000 for the quarterly accounts.

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INFORMATION THAT WILL BE PUBLISHED BY INDUSTRIES

The details that will be supplied by the national and regional economic accounts

will not always correspond to the structured levels of NACE Rev. 2. Therefore, this classification will distinguish its first two levels of desegregations into the following categories:

<i>Level</i>	<i>Name</i>	<i>Categories</i>	<i>Identification</i>
First	Section	21	One-digit alphabetical code
Second	Division	88	Two-digit numerical code

However, the economic accounts have adopted some levels of disaggregation of their own, aggregating sections or divisions, according to type, with a lower level of detail in the short-term information and greater detail in the structural information. These levels are seen as a harmonized minimum for publication, with the Member States able to supply a greater level of statistical breakdown.

In this way, the four following levels of disaggregation of activities have been adopted:

*a) Breakdown into 10 industries (not structured into NACE Rev. 2). This breakdown will be applied in the:*

- Quarterly National Accounts (in all quarters)
- Advance estimate of the Annual National Accounts (data referring to financial year t-1)
- First provisional estimate and Advance estimate of the Regional Accounts (data referring to financial year t-1)

This breakdown replaces that previously carried out in these three areas and that detailed 6 industries. The 10 industries from which information will be provided will be the following:

A*10 Seq. No	Description	NACE Rev. 2 sections
1	Agriculture, forestry and fishing	A
2	Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	B, C, D, E
2a	<i>of which: manufacturing</i>	C
3	Construction	F
4	Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	G, H, I

A*10 Seq. No	Description	NACE Rev. 2 sections
5	Information and communication	J
6	Financial and insurance activities	K
7	Real estate activities	L
8	Professional, scientific and technical activities; administrative and support service activities	M, N
9	Public administration and defence; compulsory social security; education; human health and social work activities	O, P, Q
10	Arts, entertainment and recreation, repair of household goods and other services	R, S, T, U

As can be seen, there are really 11 industries and, although a strict comparison cannot be made, it can be seen from this breakdown that the service industries have been given greater detail, in relation to that in the old classification of 6 industries. The industrial activities are considered all together in industry number 2 and, of these, information is extracted for manufacturing (industry 2 a).

For practical reasons, in the new base 2008 information is going to be given about industries, irrespective of whether it is market or non-market. This assumes a change in relation to current publication, even if most of these activities belong to industry 9 *Public administration, defence, education, human health and social work activities*. Virtually all the non-market part that is excluded relates to the activities of Non-Profit Institutions Serving Households (NPISHs) not included in this industry 9, and to domestic services.

As mentioned previously, this will be the level of breakdown that will be found in the quarterly accounts, regarding the data for gross value added (GDP supply), employment and compensation of employees.

*b) Breakdown into 38 industries (not structured into NACE Rev. 2)*

This level of detailed information will be applied to the annual national accounts in their first provisional estimates, that is, that which is published 21 months after the end of the reference period (in September of year t, the data referring to financial year t-2).

Regulation 715/2010 also stipulates that this breakdown includes the disaggregation of the total of imputed rents of the industry of Real estate activities, therefore there will be an additional industry. Nevertheless, regarding activities of extraterritorial organizations and bodies, these bodies are not resident units and, therefore, the activity that they undertake does not form part of the activity of the Spanish economy. However, the flows between these bodies and resident units are reflected in the Rest of the world account. Hence, the total number of industries that will provide real information will be 38.

The following table lists the names of the 38 industries and their association with the classification of the 10 industries that are applied to the short-term accounts or to the advance estimate:

A*10 Seq. No	A*38 Seq. No	Description	NACE Rev. 2 divisions
1	1	Agriculture, forestry and fishing	01-03
2	2	Mining and quarrying	05-09
	3	Manufacture of food products, beverages and tobacco products	10-12
	4	Manufacture of textiles, wearing apparel and leather products	13-15
	5	Manufacture of wood and paper products, and printing	16-18
	6	Manufacture of coke and refined petroleum products	19
	7	Manufacture of chemicals and chemical products	20
	8	Manufacture of basic pharmaceutical products and pharmaceutical preparations	21
	9	Manufacture of rubber and plastic products, and other non-metallic mineral products	22-23
	10	Manufacture of basic metals and fabricated metal products, except machinery and equipment	24-25
	11	Manufacture of computer, electronic and optical products	26
	12	Manufacture of electrical equipment	27
	13	Manufacture of machinery and equipment n.e.c.	28
	14	Manufacture of transport equipment	29-30
	15	Manufacture of furniture; other manufacturing; repair and installation of machinery and equipment	31-33
	16	Electricity, gas, steam and air-conditioning supply	35
	17	Water supply; sewerage, waste management and remediation activities	36-39
	3	18	Construction
4	19	Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47
	20	Transportation and storage	49-53
	21	Accommodation and food service activities	55-56
5	22	Publishing, audiovisual and broadcasting activities	58-60
	23	Telecommunications	61
	24	Computer programming, consultancy and related activities; information service activities	62-63
6	25	Financial and insurance activities	64-66
7	26	Real estate activities	68
	26a	<i>of which: imputed rents of owner-occupied dwellings</i>	
8	27	Legal and accounting activities; activities of head offices; management consultancy activities; architectural and engineering activities; technical testing and analysis	69-71
	28	Scientific research and development	72
	29	Advertising and market research; other professional, scientific and technical activities; veterinary activities	73-75
	30	Administrative and support service activities	77-82
9	31	Public administration and defence; compulsory social security	84
	32	Education	85
	33	Human health activities	86
	34	Social work activities	87-88
10	35	Arts, entertainment and recreation	90-93
	36	Other service activities	94-96
	37	Activities of households as employers of domestic personnel; undifferentiated goods- and services-producing activities of households for own use	97-98
	38	Activities of extraterritorial organisations and bodies	99

As can be seen from the previous list and in relation to the classification of 10 industries, this breakdown provides a greater level of detail both for industry (increasing from 1 activity to 16 activities) and for services activities (increasing from 7 to 21 activities).

*c) Breakdown into 64 industries (not structured into NACE Rev. 2)*

This level of detail will be applied to the annual national accounts in the estimation that is published together with the Supply and Use Tables, that is, that information which is published 33 months after the end of the reference period (in September of year t, the data referring to year t-3).

As with the previous case, a breakdown of imputed rent will be provided and the industry for services by extraterritorial organizations and bodies will be eliminated. In total, 64 industries.

The following table lists the names of the 64 industries and their association with the classification of the 10 and 38/39 industries that are applied in the areas previously mentioned:

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	Description	NACE Rev. 2 divisions	
1	1	1	Crop and animal production, hunting and related service activities	01	
		2	Forestry and logging	02	
		3	Fishing and aquaculture	03	
2	2	4	Mining and quarrying	05-09	
	3	5	Manufacture of food products, beverages and tobacco products	10-12	
	4	6	Manufacture of textiles, wearing apparel and leather products	13-15	
	5	7	7	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16
			8	Manufacture of paper and paper products	17
			9	Printing and reproduction of recorded media	18
	6	10	Manufacture of coke and refined petroleum products	19	
	7	11	Manufacture of chemicals and chemical products	20	
	8	12	Manufacture of basic pharmaceutical products and pharmaceutical preparations	21	
	9	13	Manufacture of rubber and plastic products	22	
		14	Manufacture of other non-metallic mineral products	23	
	10	15	Manufacture of basic metals	24	
		16	Manufacture of fabricated metal products, except machinery and equipment	25	
	11	17	Manufacture of computer, electronic and optical products	26	
	12	18	Manufacture of electrical equipment	27	
	13	19	Manufacture of machinery and equipment n.e.c.	28	
14	20	Manufacture of motor vehicles, trailers and semi-trailers	29		
	21	Manufacture of other transport equipment	30		
15	22	Manufacture of furniture; other manufacturing	31-32		
	23	Repair and installation of machinery and equipment	33		
16	24	Electricity, gas, steam and air conditioning supply	35		

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	Description	NACE Rev. 2 divisions
	17	25	Water collection, treatment and supply	36
		26	Sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services	37-39
3	18	27	Construction	41-43
4	19	28	Wholesale and retail trade and repair of motor vehicles and motorcycles	45
		29	Wholesale trade, except of motor vehicles and motorcycles	46
		30	Retail trade, except of motor vehicles and motorcycles	47
	20	31	Land transport and transport via pipelines	49
		32	Water transport	50
		33	Air transport	51
		34	Warehousing and support activities for transportation	52
		35	Postal and courier activities	53
21	36	Accommodation; food and beverage service activities	55-56	
5	22	37	Publishing activities	58
		38	Motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities	59-60
	23	39	Telecommunications	61
	24	40	Computer programming, consultancy and related activities; information service activities	62-63
6	25	41	Financial service activities, except insurance and pension funding	64
		42	Insurance, reinsurance and pension funding, except compulsory social security	65
		43	Activities auxiliary to financial services and insurance activities	66
7	26	44	Real estate activities	68
	26a	44a	<i>of which: imputed rents of owner-occupied dwellings</i>	
8	27	45	Legal and accounting activities; activities of head offices; management consultancy activities	69-70
		46	Architectural and engineering activities; technical testing and analysis	71
	28	47	Scientific research and development	72
	29	48	Advertising and market research	73
		49	Other professional, scientific and technical activities; veterinary activities	74-75
	30	50	Rental and leasing activities	77
		51	Employment activities	78
		52	Travel agency, tour operator reservation service and related activities	79
	53	Security and investigation activities; services to buildings and landscape activities; office administrative, office support and other business support activities	80-82	
9	31	54	Public administration and defence; compulsory social security	84
	32	55	Education	85
	33	56	Human health activities	86
	34	57	Social work activities	87-88
10	35	58	Creative, arts and entertainment activities; libraries, archives, museums and other cultural activities; gambling and betting activities	90-92

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	Description	NACE Rev. 2 divisions
		59	Sports activities and amusement and recreation activities	93
	36	60	Activities of membership organisations	94
		61	Repair of computers and personal and household goods	95
		62	Other personal service activities	96
	37	63	Activities of households as employers of domestic personnel; undifferentiated goods- and services-producing activities of households for own use	97-98
	38	64	Activities of extraterritorial organisations and bodies	99

In relation to the previous classification of 38 industries, this new list disaggregates further both the industrial activities (which increase from 16 to 23 activities), and those for services (which increase from 20 to 37 activities).

*d) Breakdown into 74 industries (not structured into NACE Rev. 2)*

This level of detailed information will only be applied to the Supply and Use Tables of the Spanish economy, which are published before the end of the third year after the reference year.

The following table provides this breakdown and its association with all the previous breakdowns:

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	A*74 Seq. No	Description	NACE Rev. 2 divisions or groups	
1	1	1	1	Crop and animal production, hunting and related service activities	01	
		2	2	Forestry and logging	02	
		3	3	Fishing and aquaculture	03	
2	2	4	4	Mining and quarrying	05-09	
		3	5	5	Processing and preserving of meat and production of meat products	10.1
			6	6	Manufacture of dairy products	10.5
			7	7	Processing, preserving and manufacture of other food products	10.2 - 10.4 10.6 - 10.9
			8	8	Manufacture of beverages	11
			9	9	Manufacture of tobacco products	12
	4	6	10	10	Manufacture of textiles	13
			11	11	Manufacture of wearing apparel	14
			12	12	Manufacture of leather and related products	15
	5	7	13	13	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	16
			8	14	Manufacture of paper and paper products	17
			9	15	Printing and reproduction of recorded media	18
6	10	16	16	Manufacture of coke and refined petroleum products	19	
7	11	17	17	Manufacture of chemicals and chemical products	20	
8	12	18	18	Manufacture of basic pharmaceutical products and pharmaceutical preparations	21	
9	13	19	19	Manufacture of rubber and plastic products	22	
	14	20	20	Manufacture of other non-metallic mineral products	23	

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	A*74 Seq. No	Description	NACE Rev. 2 divisions or groups	
	10	15	21	Manufacture of basic metals	24	
		16	22	Manufacture of fabricated metal products, except machinery and equipment	25	
	11	17	23	Manufacture of computer, electronic and optical products	26	
	12	18	24	Manufacture of electrical equipment	27	
	13	19	25	Manufacture of machinery and equipment n.e.c.	28	
	14	20	26	Manufacture of motor vehicles, trailers and semi-trailers	29	
			21	27	Manufacture of other transport equipment	30
	15	22	28	Manufacture of furniture	31	
			29	Other manufacturing	32	
			30	Repair and installation of machinery and equipment	33	
	16	24	31	Electricity, gas, steam and air conditioning supply	35	
	17	25	32	Water collection, treatment and supply	36	
			26	33	Sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services	37-39
	3	18	27	34	Construction	41-43
4	19	28	35	Wholesale and retail trade and repair of motor vehicles and motorcycles	45	
			29	36	Wholesale trade, except of motor vehicles and motorcycles	46
			30	37	Retail trade, except of motor vehicles and motorcycles	47
	20	31	38	38	Passenger rail transport, interurban; freight rail transport	49.1 - 49.2
				39	Other passenger land transport	49.3
				40	Freight transport by road and removal services; transport via pipeline	49.4 - 49.5
			32	41	Water transport	50
			33	42	Air transport	51
	34	43	43	Warehousing and support activities for transportation	52	
			35	44	Postal and courier activities	53
			21	36	45	Accommodation
46	Food and beverage service activities	56				
5	22	37	47	Publishing activities	58	
			38	48	Motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities	59-60
	23	39	49	Telecommunications	61	
	24	40	50	Computer programming, consultancy and related activities; information service activities	62-63	
6	25	41	51	Financial service activities, except insurance and pension funding	64	
			42	52	Insurance, reinsurance and pension funding, except compulsory social security	65
			43	53	Activities auxiliary to financial services and insurance activities	66
7	26	44	54	Real estate activities	68	
	26a	44a	55	<i>of which: imputed rents of owner-occupied dwellings</i>		

A*10 Seq. No	A*38 Seq. No	A*64 Seq. No	A*74 Seq. No	Description	NACE Rev. 2 divisions or groups
8	27	45	56	Legal and accounting activities; activities of head offices; management consultancy activities	69-70
		46	57	Architectural and engineering activities; technical testing and analysis	71
	28	47	58	Scientific research and development	72
	29	48	59	Advertising and market research	73
		49	60	Other professional, scientific and technical activities; veterinary activities	74-75
	30	50	61	Rental and leasing activities	77
		51	62	Employment activities	78
		52	63	Travel agency, tour operator reservation service and related activities	79
		53	64	Security and investigation activities; services to buildings and landscape activities; office administrative, office support and other business support activities	80-82
	9	31	54	65	Public administration and defence; compulsory social security
32		55	66	Education	85
33		56	67	Human health activities	86
34		57	68	Social work activities	87-88
10	35	58	69	Creative, arts and entertainment activities; libraries, archives, museums and other cultural activities; gambling and betting activities	90-92
		59	70	Sports activities and amusement and recreation activities	93
	36	60	71	Activities of membership organisations	94
		61	72	Repair of computers and personal and household goods	95
		62	73	Other personal service activities	96
	37	63	74	Activities of households as employers of domestic personnel; undifferentiated goods- and services-producing activities of households for own use	97-98
	38	64	-	Activities of extraterritorial organisations and bodies	99

The greater breakdown in relation to the classification of 64 industries corresponds to the details about food industry (5 activities), textile industry (3 activities), the details of other manufacturing industries, land transport (3 activities), the separation of accommodation and food services and, finally, the breakdown between market and non-market in education, human health and social work activities.

This greater detail about activities in the Supply and Use Tables makes a similar breakdown possible to that published in the same tables for the base 2000 of *CNE*.

The information that is going to be published by products

The only publication of base 2008 of *CNE* that will provide information by products corresponds to the Supply and Use tables of the Spanish economy, except for the Tourism Satellite Account. However, this account only refers to products characteristic of tourism, as they are defined in the methodology of this

satellite account and in the Recommendations of the World Tourism Organization for the drawing up of the Satellite Account for Tourism.

As for industries, Regulation 716/2010 defines different non-standardized levels of the classification of products by activity (CPA 2008). This document is only going to describe in detail the breakdown of products from the Supply and Use tables, which is of 109 products. This level of detail is consistent with the maximum disaggregation published in the Regulation, which includes 64 products.

As was stressed in the previous section, the level of detail of products makes it possible to provide similar information to that published in the same tables for the base 2000 of *CNE*.

The list of products from the tables and their association with the 64-product disaggregation of the Regulation will be the following:

P*64 Seq. No	P*109 Seq. No	Description	CPA 2008
1	1	Products of agriculture	01.1 - 01.3
	2	Live animals and animal products	01.4
	3	Agricultural and animal husbandry services (except veterinary services); hunting and trapping and related services	01.6 - 01.7
2	4	Products of forestry, logging and related services	02
3	5	Fish and other fishing products; aquaculture products; support services to fishing	03
4	6	Coal and lignite	05, 09(p)
	7	Crude petroleum	06.1, 09(p)
	8	Natural gas, liquefied or in gaseous state	06.2, 09(p)
	9	Metal ores	07, 09(p)
	10	Other mining and quarrying products	08, 09(p)
5	11	Preserved meat and meat products	10.1
	12	Dairy products	10.5
	13	Vegetable and animal oils and fats	10.4
	14	Prepared animal feeds	10.9
	15	Other food products	10.2 - 10.3 10.6 - 10.8
	16	Alcoholic beverages	11.01 - 11.06
	17	Soft drinks; mineral waters and other bottled waters	11.07
	18	Tobacco products	12
6	19	Textiles	13
	20	Wearing apparel	14
	21	Leather and related products	15
7	22	Wood and of products of wood and cork, except furniture; articles of straw and plaiting materials	16
8	23	Pulp, paper and paperboard	17.1
	24	Articles of paper and paperboard	17.2
9	25	Printing and recording services	18
10	26	Coke and refined petroleum products	19
11	27	Basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms; pesticides and other agrochemical products	20.1 - 20.2
	28	Other chemical products	20.3 - 20.5
	29	Man-made fibres	20.6

P*64 Seq. No	P*109 Seq. No	Description	CPA 2008
12	30	Basic pharmaceutical products and pharmaceutical preparations	21
13	31	Rubber products	22.1
	32	Plastic products	22.2
14	33	Glass and glass products	23.1
	34	Ceramic products	23.2 - 23.4
	35	Cement, lime and plaster; articles of concrete, cement and plaster	23.5 - 23.6
	36	Other non-metallic mineral products	23.7, 23.9
15	37	Basic metals	24
16	38	Fabricated metal products, except machinery and equipment	25
17	39	Electronic components and boards	26.1
	40	Computers and peripheral equipment	26.2
	41	Other electronic material and optical media	26.3 - 26.8
18	42	Electrical equipment, except domestic appliances	27.1 - 27.4, 27.9
	43	Domestic appliances	27.5
19	44	Machinery and equipment n.e.c.	28
20	45	Motor vehicles	29.1
	46	Bodies (coachwork) for motor vehicles; trailers and semi-trailers; parts and accessories for motor vehicles	29.2 - 29.3
21	47	Ships and boats	30.1
	48	Railway locomotives and rolling stock	30.2
	49	Air and spacecraft and related machinery	30.3
	50	Other transport equipment n.e.c.	30.4, 30.9
22	51	Furniture	31
	52	Other manufactured goods	32
23	53	Repair and installation services of machinery and equipment	33
24	54	Electricity, transmission and distribution services	35.1
	55	Manufactured gas; distribution services of gaseous fuels through mains; steam and air conditioning supply services	35.2 - 35.3
25	56	Natural water; water treatment and supply services	36
26	57	Sewerage services; sewage sludge; waste collection, treatment and disposal services; materials recovery services; remediation services and other waste management services	37-39
27	58	Residential buildings and residential building construction works	41(p)
	59	Non-residential buildings and non-residential building construction works	41(p)
	60	Constructions and construction works for civil engineering	42
	61	Specialised construction works	43
28	62	Trade services of motor vehicles; trade services of motor vehicle parts and accessories; trade, maintenance and repair services of motorcycles and related parts and accessories	45.1, 45.3 - 45.4
	63	Maintenance and repair services of motor vehicles	45.2
29	64	Wholesale trade services, except of motor vehicles and motorcycles	46
30	65	Retail trade services, except of motor vehicles and motorcycles	47
31	66	Passenger rail transport services, interurban; freight rail transport services	49.1 - 49.2
	67	Other transport services	49.3 - 49.5
32	68	Water transport services	50
33	69	Air transport services	51
34	70	Warehousing and storage services	52.1
	71	Support services for transportation	52.2
35	72	Postal and courier services	53

P*64 Seq. No	P*109 Seq. No	Description	CPA 2008
36	73	Accommodation services	55
	74	Food and beverage serving services	56
37	75	Publishing services	58
38	76	Motion picture, video and television programme production services, sound recording and music publishing	59
	77	Programming and broadcasting services	60
39	78	Telecommunications services	61
40	79	Computer programming, consultancy and related services; information services	62-63
41	80	Financial services, except insurance and pension funding	64
42	81	Insurance, reinsurance and pension funding services, except compulsory social security	65
43	82	Services auxiliary to financial services and insurance services	66
44	83	Real estate services	68
44a	84	<i>of which: imputed rents of owner-occupied dwellings</i>	
45	85	Legal and accounting services; services of head offices; management consulting services	69-70
46	86	Architectural and engineering services; technical testing and analysis services	71
47	87	Scientific research and development services	72
48	88	Advertising and market research services	73
49	89	Other professional, scientific and technical services	74
	90	Veterinary services	75
50	91	Rental and leasing services of motor vehicles	77.1
	92	Rental and leasing services of personal and household goods and of other machinery, equipment and tangible goods	77.2 - 77.3
51	93	Employment services	78
52	94	Travel agency, tour operator and other reservation services and related services	79
53	95	Security and investigation services	80
	96	Services to buildings and landscape	81
	97	Office administrative, office support and other business support services	82
54	98	Public administration and defence services; compulsory social security services	84
55	99	Education services	85
56	100	Human health services	86
57	101	Social work services	87-88
58	102	Creative, arts and entertainment services	90
	103	Library, archive, museum and other cultural services	91
	104	Gambling and betting services	92
59	105	Sporting services and amusement and recreation services	93
60	106	Services furnished by membership organisations	94
61	107	Repair services of computers and personal and household goods	95
62	108	Other personal services	96
63	109	Services of households as employers of domestic personnel	97-98
64	-	Services provided by extraterritorial organisations and bodies	99

*The information that is going to be published by assets*

In addition to the methodological change required by the introduction of the new classifications of activities and products, the new Regulation stipulates that the information about Gross Fixed Capital Formation should be disaggregated by assets.

Clearly, in the Use table, investment by products will be described in detail, but in the quarterly accounts and annual national accounts, the breakdown of Gross Fixed Capital Formation will be undertaken according to a classification of assets.

In this way, the details of investment in machinery and equipment (machinery and transport material), construction (housing and other constructions) and other products (agricultural products and others) will no longer be published in order to comply with the classification that is reflected in the new Regulation.

Specifically, two classifications of assets are defined, one that breaks down investment into 6 types of different assets and that will be used over a short-term scale (quarterly accounts and annual accounts in their advance versions), and another classification that defines 9 different assets and that will be used in the estimates of the national accounts in their provisional and definitive versions.

The classification into 6 types of assets in the category of non-financial assets (AN.11) that has been adopted to disaggregate the investment in fixed capital, details five categories of tangible assets and one of intangible assets, which are shown in the following list:

AN.11	Fixed assets
AN.111	Tangible fixed assets
AN. 1111	Dwellings
AN. 1112	Other buildings and structures
AN. 11131	Transport equipment
AN. 11132	Other machinery and equipment
AN. 1114	Cultivated assets
AN. 112	Intangible fixed assets

In addition to these six types of assets, the broader classification of 9 categories disaggregates machinery and equipment into two categories and intangible assets into another two. These are the following:

AN.11	Fixed assets
AN.111	Tangible fixed assets
AN. 1111	Dwellings
AN. 1112	Other buildings and structures
AN. 11131	Transport equipment
AN. 11132	Other machinery and equipment
AN. 111321	of which, office machinery and hardware
AN. 111322	of which, radio, TV and communication equipment
AN. 1114	Cultivated assets
AN. 112	Intangible fixed assets
AN. 1122	of which, computer software

The change from products to assets not only assumes a change of categories, but also one of concept. For example, regarding the category of other products, this contains services linked to the acquisition of housing (Real estate activities, services of notaries, ...). Regarding housing assets, this category will include all such services. Therefore there will be no direct correspondence between the series for investment by product of the base 2000 of *CNE* and the series for investment by assets for the base 2008 of *CNE*.

In the framework of base 2008 of *CNE*, the matrices of gross fixed capital formation by industry of ownership will be published. These matrices will now be crossed by type of asset instead of by type of product.

As mentioned earlier, in the Use table published for every financial year, investment by product will appear in the level of breakdown employed in this table.

This methodological change will also determine a statistical change, which will be commented on later, given that consumption of fixed capital will have to be calculated on the basis of investment by assets instead of by products.

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## **Statistical changes**

When changing an accounting base, the statistical changes are those that each State incorporates in a particular way, and that constitute a modification either in the sources of statistical information or in the methods for estimating the accounting aggregates, which aim to improve the quality of the estimated data in the economic accounts.

The statistical changes that are incorporated into the base 2008 of the Spanish National Accounts refer to six aspects:

- Drawing up of the intermediate demand matrix of the economy
- The Accounts of General government
- Rest of the World Accounts
- Non-Profit Institutions Serving Households (NPISHs)
- Improvement in approximation between the balancing items of the financial accounts and the non-financial accounts of the Spanish economy
- Calculation of Consumption of Fixed Capital

Drawing up of the intermediate demand matrix of the economy

This statistical change is related with the incorporation of a new source of statistical information for the drawing up of the intermediate demand matrix in the Use table (input-output framework). This source is the information provided by the *Agencia Estatal de Administración Tributaria (AEAT)* (Government Tax Authorities) that corresponds to Model 347, about transactions with third parties,

a declaration that has to be presented by natural or legal persons, public or private, who develop business or professional activities, when the amount of these transactions is greater than 3,005.06 Euros and the entity with which these transactions took place has to be indicated.

The use of this new source of tax information has made it possible to improve the estimation of the production functions of the industries determined by the new classification of activities (74 activities), also according to the new range of products (109 products).

#### *The Accounts of General government*

In the base 2008 and in the sphere of the accounts of general government, four statistical changes have been incorporated that refer to the methods for estimating the aggregates of these accounts, in relation with those that were applied in the previous accounting base. Specifically, they affect the delimitation of the institutional sector, the recording of taxes and of investment in the sector, as well as the adjustment for unlikely collection of taxes and social contributions.

a) Delimitation of the sector. Inventory of the units that belong to the institutional sector of general government.

This statistical action takes place usually within the operations of changing the accounting base. Although this delimitation is carried out in a continuous way, according to the new public sector units that appear or those others that disappear or, even, those that substantially change their role, there are certain analyses that do not have to be carried out instantly at any moment in time, but they require a broader time span for their correct application.

Specifically, the application of the so-called 50% rule, by which it has to be determined whether or not the sales of a public unit are greater than 50% of their production costs, has to be carried out for a group of years and not for a single year, according to the ESA95 Manual on government deficit and debt (Manual), so that the units that do not substantially change their form of production have a stable classification, either within the sector or outside it. The application of this rule has been especially important in times like the present when, due to the economic crisis, some units changed their ratios between sales and costs at the beginning of the crisis from those ratios observed in previous years.

In the months prior to the publication of the data of the base 2008 of the Spanish National Accounts, there has been a thorough revision of the inventory of the units of the general government sector, classifying public units one by one, by applying the rules of ESA95 and the Manual. The new inventory has been sent to Eurostat, a task that is undertaken on a regular basis.

b) The accounting record of taxes in the accounts of general government

A statistical change has been made in the base 2008, in relation to the previous base, which affects the accounting record of taxes in the accounts of general government and that has an effect on the net lending or net borrowing of this institutional sector, This effect is transmitted in the opposite way to the net lending or net borrowing in the sectors of households, NPISHs and non-financial

corporations.

This statistical change has the aim of getting closer to the time of the accrual of the taxes, an accounting criterion that the European System of Accounts points out should be followed in the estimation of all the transactions of the system.

Hence, for Value Added Tax, Corporation Tax and Personal Income Tax, instead of recording, in the accounts of general government, the revenue at the time when the obligation to pay is recognized in budgetary terms by the taxpayers (the criterion that was followed in the base 2000), a time correction (an advance) is made of between 1 and 2 months, depending upon the particular tax, to bring the period of economic accrual closer (the criterion followed in the base 2008). This means that the accounting record becomes closer to the economic accrual of the tax, normally prior to the moment when the obligation of payment is recognized in budgetary terms.

As a comparative result between the series for base 2000 and base 2008, in the new base, the series for tax revenue (mentioned earlier) would be between 1 and 2 months ahead of the old series.

As a final result, and although annually the effects of this statistical change are considerably reduced and, clearly, neutral over time, what can be seen is a reduction of the seasonal effects in the quarterly series, something that can be verified if the quarterly accounts of the institutional sectors are analysed for both accounting bases. Therefore, the seasonal effects will be less intense in the new base as compared to the previous one, although this lower intensity will depend on the economic cycle. In an identical way, in the accounts of the sectors that pay taxes (households and NPISHs, and corporations) a similar change will be observed, but with the opposite effect.

c) Quarterly accrual of gross fixed capital formation in the general government sector

Another statistical change that affects the accounts of the general government sector is related with the accrual of most of the gross fixed capital formation of this sector throughout the quarters of each year.

In the base 2000, the investment of this sector was recorded at the time when the general government units recognized the obligation to the expenditure. A considerable part of this expenditure is recognized in the fourth quarter of each year, so that the series presented a seasonal nature that did not maintain a relationship with the real economic evolution, which could be seen, for example, in the series for gross capital formation in the Quarterly National Accounting.

For this reason, in the base 2008 the seasonal nature of that expenditure on investment has been corrected to make it more consistent with the evolution of the products in which these government units invest, essentially, in infrastructure projects.

This change only affects the estimation of the investment of the quarters of each year, but not the annual aggregate, that is, it is only a temporal reassignment within each financial year.

As with the previously described statistical change, this second change does not only affect the accounts of general government, but also those of the non-financial corporations sector and, to a lesser extent, those of the household sector. In base 2000, most public investment was not recorded until the fourth quarter in the accounts of that sector, whereas during the first three quarters this amount for investment appeared in the accounts of the other two sectors mentioned. When the fourth quarter was reached, the amount accumulated in the first three quarters of each year was balanced between general government, corporations and households sectors. With no effect on the annual accounts, the balance was only between that accumulated in the first three quarters and the fourth quarter.

Currently, in base 2008, this seasonal effect has been corrected, so that in each one of the quarters the amount of real investment made by each sector is assigned to that sector, and no compensatory transaction is required between sectors at a quarterly or annual level. This helps to achieve consistency between the investment figures published in Quarterly National Accounting in its different assets and the investment shown in the Non-financial Accounts of the Institutional Sectors, for each one of the sectors.

When comparing the series for investment of base 2000 and base 2008, a greater level of investment will be seen for general government in the first, second and third quarters of each year, and a lower level in the fourth quarter. For the balancing sectors, corporations and households, the opposite effect will be observed. The sum of the two effects is null, as is the annual effect in each one of the accounts of all the sectors.

d) Revision of the model of adjustment for unlikely collection of taxes and social contributions

The accounts of the general government sector have, since 1998, reflected an adjustment (that was, therefore, included in base 2000), which appears as a capital transfer made by central government to the relevant sectors, for the total of taxes and social contributions so far accrued that are unlikely to be collected in the future. This adjustment is made to comply with the application of Regulation 2516/2000 of the European Parliament and of the Council, and aims to approximate the amounts accrued and the amount of cash receipts for these revenues, in the long term.

Therefore, in the accrual of taxes and social contributions recorded in each financial year, one part will not be collected in the same financial year, but there will be an entitlement still to be collected from the general government. One part of that entitlement will be paid in the future (delayed payments from other financial years), whereas the rest will not. Hence, to compensate in the long term for the difference between that collected and that accrued, in each year an estimate will have to be made of the amount unlikely to be collected in the future of the entitlements still to be collected for each financial year. That estimated amount will be entered into the accounts of general government as a capital transfer from this sector to the relevant sectors (those that really ought to have paid but will have not), with a negative effect in the accounts of general

government and a positive one in the accounts of the other sectors.

In the base 2000, these amounts for accrued taxes and contributions unlikely to be collected in the future were estimated by an econometric model, whose overall results for the total of taxes and social contributions have proved to be fairly accurate, according to the comparison with the figures for collection of previous years that are now available. However, in an individual way, the amounts unlikely to be collected for taxes were underestimated, while the amounts unlikely to be collected for social contributions were overestimated.

This effect stems from the fact that the historical information available in the form of time series was fairly limited when the econometric model was first applied. In addition, the economic crisis of recent years has modified the pattern of behaviour of how, in the future, the entitlements still due for those years are going to be collected.

Regarding these matters, fine tuning of the econometric model has been carried out in the base 2008 that has resulted in some estimates, which for the total of taxes and social contributions are very similar to those obtained with the previous model, but it has provided better estimates for individual amounts unlikely to be collected, both for taxes and for social contributions, separately, according to the comparison of these new figures with those for the collections already made in previous years.

The characteristics of this new model have recently been communicated to Eurostat.

#### *Rest of the world accounts*

The estimates of foreign trade in goods of Spain with the other States of the European Union are made by the Department of Customs and Excises of the *Agencia Estatal de Administración Tributaria (AEAT)* (Tax Authorities), according to the statistical operation INTRASTAT, which is harmonized to a European scale. In agreement with national and European legislation, those units that carry out exchange transactions of goods and services with other States of the European Union above a certain monetary threshold have to report the relevant information to the *AEAT*. This means that other types of methods are required for estimating the quantity of trade in goods that corresponds to the units that do not report in the survey.

For incorporation into base 2008, the Department of Customs and Excises has made a special effort in the estimation regarding failure to respond to the survey, by using other statistical information contained, for example in tax records. This has made it possible to considerably improve the quality of the data about the intra-community foreign trade in goods.

#### *Non-Profit Institutions Serving Households (NPISHs)*

In the new base 2008, a more in-depth operation has been carried out, both of the units that constitute the Non-Profit Institutions Serving Households Sector (NPISHs) and of their current and capital flows.

Even though the size of the sector is small within the economy as a whole, this operation has improved the quality of the current and the accumulation accounts of this institutional sector, and of the data for production and generation of income of the industries belonging to this sector.

*Improvement in reducing differences between the final balancing items of the financial accounts and the non-financial accounts of the Spanish economy*

Comparisons between the balancing items of the financial and non-financial accounts of the Spanish economy is a continuous process in which experts belonging to the institutions responsible for the estimation of these groups of accounts participate, with the aim of maintaining the maximum possible coherence between the figures.

Statistical changes have been incorporated into the base 2008 of the Spanish National Accounts, in relation to the previous base, which particularly affect the time of recording the transactions, and that have considerably improved the simultaneous analysis of both groups of accounts, especially regarding the quarterly accounts.

*Calculation of Consumption of Fixed Capital*

As a consequence of the methodological change of estimating gross fixed capital formation by assets (according to the classification described in the previous section) rather than by products, the methodology for calculating Consumption of Fixed Capital of the economy and of its different industries has to be revised.

Consumption of Fixed Capital is, basically, the amount of fixed assets consumed during a period, resulting from normal wear and foreseeable obsolescence. It has to be estimated taking into account the stocks of fixed assets and the probable economic life of the different categories of these assets. This transaction makes the presentation of the main aggregates of the economy possible, in gross terms and in net terms (once Consumption of Fixed Capital is discounted).

If this direct information does not exist about the stocks of fixed assets, the ESA95 recommends the use of the Permanent Inventory Method (PIM), the method used by the National Accounting of Spain.

The use of PIM on series of gross fixed capital formation in terms of assets rather than products, has established a statistical revision of this variable in the base 2008, in relation to the previous base.

In the market industries, this statistical change only affects the estimation of aggregates in net terms (net value added, net operating surplus, net mixed income), whereas in non-market industries, this change affects the estimation of output and of gross value added, as in these industries, output figures are obtained by the aggregation of the costs incurred and, clearly, consumption of fixed capital is one of these costs.