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THE REVISION OF ISIC AND NACE: IMPLICATIONS FOR NATIONAL ACCOUNTS<sup>1</sup>

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#### INTRODUCTION

1. The international classifications of economic activities have been recently revised. The revision will increase the relevance and comparability of statistics. At the same time it will create significant challenges for the implementation of the new activity structure in various statistical domains and for ensuring international comparability during the period of transition to the new classifications. The paper presents the main changes, focusing on the impact on compilation of national accounts series, and provides an overview of the implementation plans developed by the countries in the UNECE region.

<sup>&</sup>lt;sup>1</sup> The paper is based on the introductory guidelines, structure, explanatory notes and manuals for the implementation of ISIC Rev.4 and NACE Rev.2 that have been developed by UNSD and Eurostat. The author would like to thank to Mr. Issoufou Seidou, UNECE for his assistance in preparing this paper.

#### I. THE REVISION OF ECONOMIC ACTIVITY CLASSIFICATIONS

- 2. The first International Standard Industrial Classification of All Economic Activities (ISIC) was adopted in 1948. Since then it has been used worldwide for developing of countries' national classifications. This has lead to improved international comparability of data. Periodical reviews and revisions of the classification took place during this period.
- 3. The fourth revision of ISIC was initiated in 1999 and the UN Statistical Commission (SC) adopted ISIC Rev.4 in March 2006. The revision was motivated by the rapid development of technologies, especially in the information and communication activities, and by the occurance of new types of specialization of companies and division of labour. The increased demand for detailed and comparable information in some areas of specific policy interest e.g. environment protection, human health, was also taken into account. The need of international comparability and convergence between different activity classifications used around the world e.g. the General Industrial Classification of Economic Activities within the European Communities (NACE), the North American Industry Classification System (NAICS), the Australian and New Zealand Standard Industrial Classification (ANZSIC), was another factor for the revision. Efforts to ensure continuity were also important element of the process.

### I.1 International Family of Economic and Social Classifications

- 4. ISIC is the activity classification developed as guidelines by the UN Statistical Division (UNSD) and recommended for use at world level. However, it is not possible to reflect all the specifics of different regions and countries, especially at the lower level. Therefore different derived and related activity classifications adjusted to the region needs are developed on the base of ISIC. The international family of economic and social classifications is comprised of the reference, derived and related classifications, which are registered in the UN Inventory of Classifications.
- 5. **Reference classifications** are a product of international agreements and are approved by the United Nations Statistical Commission or another competent intergovernmental board. They are recommended as guidelines for the development of derived classifications with respect to structure, building blocks, character and definition of categories. ISIC is the reference classification of all economic activities at the global level.
- 6. **Derived classifications** are based upon reference classifications and are tailored to the needs at national or regional level. Derived classifications adopt the reference classification structure and building blocks in order to ensure consistency of aggregates, and then provide additional breakdown when necessary. NACE is a derived classification of ISIC. Both classifications are identical at the highest levels (sections and divisions), where NACE is more detailed at lower levels to respond to the specific users' needs in the EU.
- 7. **Related classifications** are those that partially refer to reference classifications. Usually they differ to some extend in structure or building blocks and therefore correspondence tables are necessary in order to compare statistics. NAICS is a related classification of ISIC. Complete convergence between NAICS and ISIC was not possible in the past. Following the latest revision data aggregated in NAICS can be re-aggregated into two-digit level of ISIC.

#### I.2 Main changes between ISIC Rev. 3 and ISIC Rev. 4.

- 8. There have been substantial changes in the level of detail and the groupings of activities. However, the main principles and overall characteristics for building up the classifications remain the same in order to ensure continuity.
- 9. The broad correspondence between ISIC Rev. 3 and ISIC Rev. 4 is presented in Annex 1. It is difficult to describe all the differences between the two classifications. Overall the level of detail in both ISIC and NACE is greater than before: the number of sections goes up from 17 to 21 and that of divisions from 62 to 88. Nevertheless, this increase does not affect all activities. The main changes refer to services, while manufacturing roughly remains with the same breakdowns.

Table 1. ISIC and NACE: changes in the structure

	ISIC Rev. 3.1	ISIC Rev. 4	Difference	NACE Rev.1.1.	NACE Rev. 2	Difference
Sections	17	21	+4	17	21	+4
Divisions	62	88	+26	62	88	+26
Groups	161	238	+77	224	272	+48
Classes	298	420	+122	514	615	+101

#### Agriculture

10. The sections for A "Agriculture, hunting and forestry" and B "Fishing" have been combined. However, the level of detail under the new section A "Agriculture, forestry and fishing" has been increased in order to take into account the importance of the agricultural sector in many developing countries.

#### Industry

- 11. As far as mining and manufacturing are concerned, one of the important changes is the introduction of specific divisions for support services. Other important changes in manufacturing worth mentioning are:
  - "Publishing activities" are moved from section C "Manufacturing" to the new section J "Information and communication";
  - "Recycling" is moved from Section C "Manufacturing" to the new section E "Water supply, sewerage, waste management and remediation activities".
- 12. A new section E "Water supply, sewerage, waste management and remediation activities" has been created. This section groups together activities that are of common policy interest, especially in relation to environment accounts.

#### Services

- 13. The most important changes in the new ISIC are in the services sector. New sections have been added in order to reflect the increased importance of certain services in the global economy. ISIC Rev.4 introduces separate sections for the following activities:
  - Transportation and storage;
  - Information and communication;
  - Real estate:
  - Professional, scientific and technical activities;
  - Administrative and support service activities;
  - Arts, entertainment and recreation;
  - Other service activities.
- 14. One of the major changes in ISIC is the creation of a new section J -"Information and Communication" that combines activities linked to the production and distribution of information and cultural products, communication, information technology activities, the processing of data and other information service activities. The bulk of the section comes from activities previously classified in "Manufacturing", "Transports, storage and communication", "Real estate, renting and business activities", and "Other community, social and personal service activities".
- 15. Section Q "Human health and social work activities" has been restructured and additional breakdown have been added. It is focused now only on human health, thus replying to the needs to better measure this important activity and provide information for social care and policy making. As a result veterinary activities have been moved to section M "Professional, scientific and technical activities".
- 16. Another important change is the split of the old section K "Real estate, renting and business activities" into three sections. Real estate becomes a separate section L due to its importance for the SNA. The remaining activities have been moved into two sections M "Professional, scientific and technical activities" that cover activities requiring a high degree of knowledge and section N "Administrative and support service activities" that support the general business operation but do not focus on the transfer of specialized knowledge.
- 17. In order to monitor the changes between the different versions of ISIC and NACE, detailed correspondence tables are developed. In addition links to other activity classifications and to the product classifications are also established. These correspondence tables are available in electronic format at Eurostat metadata server RAMON

[http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP\_PUB\_WELC].

Similar information can also be found at the United Nations Statistics Division website [http://unstats.un.org/unsd/cr/registry/regot.asp?Lg=1].

# II. SPECIAL AGGREGATION LEVELS AND PRESENTATIONS FOR NATIONAL ACCOUNTS

#### II.1 SNA aggregation levels

- 18. On the highest level ISIC Rev.4 provides for 21 Sections of economic activities. However, it was considered that a more aggregated level would be appropriate for global reporting of national accounts data. A request for a top-top level of about 10 categories was expressed by the OECD Working Party of National Accounts, Eurostat and the SNA Advisory Expert Group. In addition, a number of countries demanded that an intermediate level of about 40 categories based on the 88 divisions of ISIC be used.
- 19. The two specific SNA/ISIC aggregation levels were developed and finalized after wide consultations with countries and international organizations. These aggregation levels are not part of the ISIC/NACE hierarchical structure but can be easily integrated into it. Table 2 presents the toptop A\*10/11 level that will replace the current level A6. The interim level will include 38 activity groupings.

Table 2. SNA93 Rev. 1 aggregation level A\*10/11

Code	ISIC rev 4 sections	Description
1	A	Agriculture, forestry and fishing
2	B, C, D and E	Manufacturing, mining and quarrying and other
		industry
2a	С	Of which: manufacturing
3	F	Construction
4	G, H and I	Wholesale and retail trades, transport,
		accommodation and food service activities
5	J	Information and communication
6	K	Financial and insurance activities
7	L	Real estate activities
8	M and N	Business services
9	O, P, and Q	Public administration, defense, education, human
		health and social work activities
10	R, S, T and U	Other services

- 20. Although some ISIC sections are outside the scope of the SNA production boundary, they are still included in the presentation for completeness. These are section U "Activities of extraterritorial organizations and bodies" and part of Section T "Undifferentiated goods and services producing activities of households for own use".
- 21. The Revised SNA will make a reference to ISIC Rev. 4 and will include the additional aggregation A\*10 and A\*38 levels as recommended activity groupings to be used in National accounts. In general, the SNA is not strictly prescriptive. While encouraging countries to use internationally comparable classifications, it also allows them to choose their own detail, which will allow them to have separate items for key production activities or exports, but wrap up other headings if they are considered unimportant. It is, nevertheless, recommended that whatever the

national detail is, at least on the top levels national accounts are reported according to ISIC in order to ensure international comparability.

22. For the EU the activity classification is part of the legislation and is mandatory for the data reporting of the member countries. NACE Rev. 2 was established by a Commission Regulation in 2006. Statistics collected by member states involving classification by economic activity must be compiled according to NACE or a national classification derived from it. The A\*10 and A\*38 aggregation levels developed for the purposes of national accounts will also become part of the European legislation and will be included in the European system of accounts. In addition to that another A65/66 activities aggregation will be introduced for the purposes of input/output tables. The proposed A\*38 and A\*66 SNA/ISIC levels are presented in Annex 2 and Annex 3.

#### **II.2** Alternative classifications

- 23. ISIC groups units on the basis of the type of economic activity they carry out. As this distinction has been very important and largely used in national accounts, there are also other characteristics of the producing units that are important in the SNA, but are not integrated in ISIC.
- 24. The market/non-market split is an important feature of the SNA, but is not included in ISIC. A cross-classification according to this principle and ISIC would be anyway useful, especially for the activities where both market and non-market production takes place, such as education, health, art, recreation and other services.
- 25. ISIC does not draw distinction between the type of ownership and the legal organization of the production units. Therefore, there is no explicit link between ISIC and the classification of Institutional Sectors in the SNA. Nevertheless for some units certain relation between activities and institutional sectors exists, e.g. most units classified in Section K "Financial and insurance activities" refer to Financial Corporations sector. Cross-classification between institutional units and economic activities is a very common presentation used in national accounts.
- 26. ISIC also does not differentiate between formal and informal sector. In some countries, however, policy makers and analysts may require detailed data on the composition and economic activity structure of the informal sector. Therefore UNSD is developing a specific aggregation of ISIC giving separate presentation of the activities where the informal sector is important. These are agriculture, manufacturing, repair services, trade, transport, accommodation and food services. The alternative ISIC aggregation for informal sector will contain about twelve categories. Compared to the SNA A10 level it would show G "Wholesale and retail trade", H "Transport and storage" and I "Accommodation and food service" separately. Retail trade not in stores (except via Internet) will also be a separate category. On the other hand, it is proposed that activities typically not undertaken in the informal sector like J "Information and communication", K "Financial and insurance services" and L "Real estate activities" be grouped together.

#### III. IMPLEMENTATION PLANS IN THE COUNTRIES OF THE UNECE REGION

- 27. The switch to the new classifications will be a very costly and complex exercise. It will be very difficult to keep international comparability of statistics during the period of transition to the new classification. Therefore, at its 38<sup>th</sup> Session in March 2007, the UN Statistical Commission reviewed issues linked to the implementation of ISIC Rev.4 and Central Product Classification (CPC), Version 2. The Commission highlighted the need of international manuals, training, organization of meetings and technical assistance. The development of correspondence tables between the new classifications and the previous versions should be made available as soon as possible.
- 28. The Commission also considered a timetable for the implementation of ISIC and CPC. The timetable is build around the following milestones:
  - Adaptation of national classifications by 2009;
  - Adaptation of business registers (where existing) by 2010;
  - Use of revised ISIC and CPC in statistical programmes starting in 2011;
  - Use of revised ISIC and CPC in national accounts by 2015;
  - Use in population census, and so forth, as soon as possible.
- 29. It was recognized that there is a need for flexibility in the timetable, allowing the countries to speed up the process of implementation. Countries are encouraged to develop overall strategy and planning for the introduction of the new classifications into their source data and national accounts statistics and link it to the implementation strategy for their national accounts.
- 30. In the UNECE region the implementation process will be considerably advanced compared to the timetable proposed at global level. Many efforts have been made, especially at the EU level to ensure synchronized change to the new classifications. The implementation plans of the different groups of countries are presented below.

#### III.1 EU group of countries

- 31. The programme Operation 2007 for implementation of NACE Rev.2 by the EU member states is posted at Eurostat website at <a href="http://circa.europa.eu/irc/dsis/nacecpacon/info/data/en/index.htm">http://circa.europa.eu/irc/dsis/nacecpacon/info/data/en/index.htm</a>
- 32. The site contains detailed information, explanatory notes and electronic correspondence tables. Four handbooks providing a general overview of the implementation project, suggestions, common practices, methodologies and different tools will be prepared. Three of them are already finalised and are posted on Operation 2007 website.
- 33. The implementation plan has been developed in consultation with experts from various areas of statistics and with the National Statistical Institutes of member countries. The aim is to ensure that in each domain countries simultaneously switch to reporting in the new classification. The dependencies between the different surveys and the links ("feeding") between

source and derived statistics have been taken into account. The main steps in this programme are the following:

- 1 January 2008: all statistical units in business registers should be classified according to NACE Rev.2;
- *January 2008*: economic activities should be classified according to NACE Rev.2. 2008 will be the first reference year for structural business statistics (to be reported in 2009 and 2010);
- *January 2009*: Short term statistics have to be reported according to NACE Rev.2 starting reference period M1 2009 and Q1 2009;
- January 2009: Labour cost index has to be reported in NACE Rev.2;
- September 2011: Implementation of NACE Rev.2 in National accounts;
- 2011: Implementation of NACE Rev.2 in Balance of Payments and Agricultural statistics.
- 2012: All community statistics will be produced according to NACE Rev.2.
- 34. The aspects of NACE Rev. 2 implementation in national accounts have been discussed in the last couple of years at the Eurostat National Accounts Working Group. They include the aggregation levels to be used for the separate national accounts series, the production and transmission of back data. Although a final decision on all these issues is not taken yet, the discussion with member states has focused on the following proposals:
  - Level A6 will be replaced by SNA/NACE level A\*10. It will be used for transmission of
    quarterly accounts and the annual accounts derived from them. A\*10 will also be used for
    regional accounts.
  - Level A17 will be replaced by NACE Rev. 2 at section level (21 categories). However, this aggregation level will have only limited use in national accounts.
  - Level A31 is replaced by SNA/NACE level A\*38. This level will be used to report annual national accounts.
  - Level A60 will be replaced by SNA/NACE level A\*66. This level will be used for reporting of supply and use and input/output tables.
- 35. Final decision on backcasting and length of time series is still not taken. The European Central Bank and other users would like to have long time series starting in 1980 at the minimum. However, this is not considered feasible by many member states because of the lack of input data. Most likely an agreement will be reached around a proposal for reporting A10 series back to 1990 for the Euro area countries, Denmark, Sweden and UK and back to 1995 for the other states. The series in A\*38 breakdown would start in 1995 and in A\*66 breakdown in 2000. The starting year for regional accounts would be 1999.

#### **III.2 North America**

36. In 2006 OECD conducted a survey among its non-European member countries about their plans for introducing the revised activity classification in national accounts. Canada and the US are using the North American Industry Classification System, which was revised in 2002, with a second revision to be introduced in 2007, and is now consistent with the high level of ISIC

Rev.4.

37. Canada will implement the revised NAICS in its industry surveys in 2007. National accounts will switch to the new classification in 2010. US will also start to supply data in the revised breakdown in 2010, the series going back to 1998. Both countries should be able to provide to the OECD A\*10 and A\*38 levels for annual data.

#### III.3 CIS and Western Balkan countries

- 38. In the spring of 2007, when the national accounts questionnaire was distributed, UNECE asked the CIS and Western Balkan countries about their intentions for introduction of the revised activity classifications in their statistics, and in particular in national accounts. This information will help UNECE to better plan the data collection and dissemination, as well as the revision of the questionnaires. In addition, it could be used by the countries in the region to develop their national plans, by taking into account the calendar of neighboring countries. Most importantly, region specific needs for technical assistance could also be identified. About half of the countries replied. Some countries indicated that they do not yet have detailed implementation plans and they are expecting translation into Russian of ISIC Rev.4.
- 39. It should be noted, that CIS and Western Balkans start from a very different base than the EU member countries. Therefore a synchronized approach as in EU countries is not possible and a number of additional difficulties will be faced in the transition phase.
- 40. All EU countries have well established business registers and relatively stable time series in NACE Rev.1, going back to 1995 as a minimum (for the new member states). At same time the business registers of many Western Balkan and CIS countries are still in process of development. Most countries have only recently finalized a difficult revision of their statistics, changing from the so-called Classification of the Branches of the National Economy (CBNE), based on the material product system to ISIC Rev.3. A few countries are still using national activity classifications derived from CBNE.
- 41. So far, from the group of the CIS countries only Ukraine have reported more detailed plans for implementation of ISIC. They are generally in line with the timetable discussed at the 38<sup>th</sup> Statistical Commission: the adaptation of the national classification will be finished in 2009 and the first annual national accounts in ISIC Rev.4 will be available in 2012.
- 42. Two countries, Armenia and Republic of Moldova, have replied that they were currently translating ISIC Rev.4/NACE Rev.2 and developing a national version. It is expected that the process will be finalized by the end of 2007 in Moldova and in 2008 in Armenia. The implementation in business statistics will start in 2008. More detailed plans, including the introduction of ISIC in national accounts, will be elaborated at a later stage.
- 43. Kyrgyzstan is expecting that the CISSTAT provide the Russian version of ISIC Rev.4. Only after that more detailed discussions on its implementation will begin.

- 44. There is a group of four countries, Belarus, Tajikistan, Turkmenistan and Uzbekistan that are currently in process of switching from CBNE to ISIC Rev3. Belarus expects to compete the revision this year, and Turkmenistan in 2008.
- 45. The two Western Balkan countries that are candidates to the EU will try to align their implementation plans with those of the EU member states to the extent possible. The former Yugoslav Republic of Macedonia has finished the translation of the correspondence tables and will complete the translation of the detailed structure and explanatory notes of NACE Rev. 2 by the end of this year.
- 46. Serbia intends to follow fully the timetable developed by Eurostat. The new NACE will be introduced in business statistics in 2008 and in national accounts in 2011, providing back data up to 2000.
- 47. The UNECE member states are currently working on the implementation of ISIC Rev.4/NACE Rev.2 in their statistics. In 2008/09 the business registers of the majority of countries will be coded in the new classification. UNECE expects that by 2012 the most countries would have implemented ISIC Rev.4 in their national accounts. By that time the national accounts questionnaires will be amended to reflect the new SNA/ISIC aggregation levels. It is clear that the international comparability of data in the transition period will be affected. Adjustments need to be done to maintain special and temporal comparability and to produce regional aggregates.

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 ${\bf ANNEX~1}$  Broad correspondence between ISIC Rev.3 and ISIC Rev.4 Sections

ISIC Rev.	3 – NACE Rev. 1	ISIC Rev. 4 – NACE Rev. 2		
Section	Description	Section	Description	
A B	Agriculture, Hunting and Forestry Fishing	A	Agriculture, Forestry and Fishing	
C	Mining and quarrying	В	Mining and quarrying	
D	Manufacturing Manufacturing	C	Manufacturing	
E		D E	Electricity, gas, steam and air conditioning supply Water supply, sewerage, waste management and remediation activities	
F	Construction	F	Construction	
G	Wholesale and retail trade: repair of motor vehicles, motorcycles and personal and household goods	G	Wholesale and retail trade; repair of motor vehicles and motorcycles	
Н	Hotels and restaurants	I	Accommodation and food service activities	
I	Transport, storage and communications	Н	Transportation and storage	
		J	Information and communication	
J	Financial intermediation	K	Financial and insurance activities	
K	Real estate, renting and business activities	L	Real estate activities	
		M N	Professional, scientific and technical activities Administrative and support service activities	
L	Public Administration and defense; compulsory social security	О	Public administration and defence; compulsory social security	
M	Education	P	Education	
N	Health and social work	Q	Human health and social work activities	
О	Other community, social and personal services activities	S	Other service activities	
		R	Arts, entertainment and recreation	
P	Activities of private households as employers and undifferentiated production activities of private households	Т	Activities of households as employers; undifferentiated goods- and services- producing activities of households for own use	
Q	Extraterritorial organizations and bodies	U	Activities of extraterritorial organizations and bodies	

Note: ISIC Rev. 3 had 17 sections and 62 divisions. ISIC Rev. 4 has 21 sections and 88 divisions.

## ANNEX 2

SNA93 rev. 1 aggregation level A\*38

2         B         Minin           3         CA         Manu           4         CB         Manu           5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	ulture, forestry and fishing ag and quarrying facture of food products, beverages and tobacco facture of textiles, wearing apparel and leather products facture of wood and paper products, and printing facture of coke, and refined petroleum products facture of chemicals and chemical products
1         A         Agrico           2         B         Minin           3         CA         Manu           4         CB         Manu           5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	g and quarrying facture of food products, beverages and tobacco facture of textiles, wearing apparel and leather products facture of wood and paper products, and printing facture of coke, and refined petroleum products
2         B         Minin           3         CA         Manu           4         CB         Manu           5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	g and quarrying facture of food products, beverages and tobacco facture of textiles, wearing apparel and leather products facture of wood and paper products, and printing facture of coke, and refined petroleum products
3         CA         Manu           4         CB         Manu           5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	facture of food products, beverages and tobacco facture of textiles, wearing apparel and leather products facture of wood and paper products, and printing facture of coke, and refined petroleum products
4         CB         Manu           5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	facture of textiles, wearing apparel and leather products facture of wood and paper products, and printing facture of coke, and refined petroleum products
5         CC         Manu           6         CD         Manu           7         CE         Manu           8         CF         Manu	facture of wood and paper products, and printing facture of coke, and refined petroleum products
6 CD Manu 7 CE Manu 8 CF Manu	facture of coke, and refined petroleum products
7 CE Manu: 8 CF Manu:	
8 CF Manu	facture of chemicals and chemical products
<del>}                                    </del>	
9 CG Manu	facture of pharmaceuticals, medicinal chemical and botanical products
	facture of rubber and plastics products, and other non-metallic mineral products
10 CH Manu	facture of basic metals and fabricated metal products
11 CI Manu	facture of computer, electronic and optical products
12 CJ Manu	facture of electrical equipment
13 CK Manu	facture of machinery and equipment n.e.c.
14 CL Manu	facture of transport equipment
	manufacturing and repair
16 D Electr	ricity, gas, steam and air-conditioning supply
17 E Water	r, sewage, waste management and remediation
<del></del>	ruction
19 G Whole	esale and retail trades
20 H Transp	portation and storage
	mmodation and food service activities
22 JA Publis	shing, audiovisual and broadcasting activities
	ommunications
24 JC IT and	d other information services
25 K Financ	cial and insurance activities
<del>                                     </del>	estate activities
26a Of v	which: imputed rents of owner-occupied dwellings
	, accounting, management, architecture, engineering, technical testing and
	sis activities
	tific research and development
	professional, scientific and technical activities
<del>}                                      </del>	nistrative and support service activities
	administration and defense
32 P Educa	
<del>                                     </del>	nn health services
	ential care and social work activities
	entertainment and recreation
	services
	ities of households as employers of domestic personnel and undifferentiated
	and services production of households for own use
	territorial organizations and bodies

## ANNEX 3

# ESA aggregation level A\*66

Sequential	NACE	Description
number	Rev. 2	Description
number	divisions	
1	01	Crop and livestock production, hunting and related service activities
2	02	Forestry and logging
3	03	Fishing and aquaculture
4	05-09	Mining and quarrying
5	10-12	Manufacture of food products, beverages and tobacco products
6	13-15	Manufacture of textiles, wearing apparel and leather
7	16	Manufacture of wood and of products of wood and cork, except furniture;
		manufacture of articles of straw and plaiting materials
8	17	Manufacture of paper and paper products
9	18	Printing and reproduction of recorded media
10	19	Manufacture of coke and refined petroleum products
11	20	Manufacture of chemicals and chemical products
12	21	Manufacture of pharmaceuticals, medicinal chemical and botanical products
13	22	Manufacture of rubber and plastics products
14	23	Manufacture of other non-metallic mineral products
15	24	Manufacture of basic metals
16	25	Manufacture of fabricated metal products, except machinery and equipment
17	26	Manufacture of computers and electronic and optical products
18	27	Manufacture of electrical equipment
19	28	Manufacture of machinery and equipment n.e.c.
20	29	Manufacture of motor vehicles, trailers and semi-trailers
21	30	Manufacture of other transport equipment
22	31-32	Manufacturing n.e.c.
23	33	Repair and installation of machinery and equipment
24	35	Electricity, gas, steam and air conditioning supply
25	36	Water collection, treatment and supply
26	37-39	Sewerage, waste management and remediation activities
27	41-42	Construction of buildings and civil engineering
28	43	Specialized construction activities
29	45	Wholesale and retail trade and repair of motor vehicles and motorcycles
30	46	Wholesale trade, except of motor vehicles and motorcycles
31	47	Retail trade, except of motor vehicles and motorcycles
32	49	Land transport and transport via pipelines
33	50	Water transport
34	51	Air transport

35	52	Worshousing and support activities for transportation		
	53	Warehousing and support activities for transportation		
36		Postal and courier activities		
37	55-56	Accommodation and food and beverage service activities		
38	58	Publishing activities		
39	59	Motion picture, video and television programme production, sound		
40	<b>60</b>	recording and music publishing activities		
40	60	Broadcasting and programming activities		
41	61	Telecommunications		
42	62	Information technology		
43	63	Other information service activities		
44	64	Financial intermediation, except insurance and pension funding		
45	65	Insurance, reinsurance and pension funding, except compulsory social security		
46	66	Other financial activities		
47	68	Real estate activities		
47a		of which: imputed rents for owner-occupied dwellings		
48	69-70	Legal, accounting and management consultancy activities; head offices		
49	71	Architecture and engineering activities; technical testing and analysis		
50	72	Scientific research and development		
51	73	Advertising and market research		
52	74-75	Other professional, scientific and technical and veterinary activities		
53	77	Rental and leasing activities		
54	78	Employment activities		
55	79	Travel agency, tour operator and other reservation service activities		
56	80-82	Security and investigation, services to buildings and landscape and other support activities		
57	84	Public administration and defence; compulsory social security		
58	85	Education		
59	86	Human health activities		
60	87-88	Social work activities		
61	90-92	Arts, entertainment and museum activities		
62	93	Sports, amusement and recreation activities		
63	94	Activities of membership organizations		
64	95	Repair of computers and personal and household goods		
65	96	Other service activities		
66	97	Activities of households as employers of domestic personnel		
67	99	Activities of extraterritorial organizations and bodies		
57		or entermorner or entermorner and occurrent		