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DEFINING SERVICES: AN ENUMERATIVE APPROACH

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by

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\* The views expressed in this paper are those of the author and do not necessarily reflect those of the OECD or its Member Governments.

### Introduction and summary

1. In view of the great conceptual difficulties to arrive at a single overall definition of services and the various analytical requirements, this note proposes a multiple enumerative definition of service activities.
2. The proposed set of definitions are formulated in terms of the United Nations International Standard Industrial Classification of all Economic Activities Revision 3 (ISIC); the broad structure of ISIC is reproduced in Annex II of this note. The definitions correspond to totals of ISIC Categories and Divisions.
3. The central definition, S1, is in principle the broadest definition of service activities and appears to be the most widely used one. Definitions S2 to S5 are linked to S1 by adding and/or deducting a variable number of ISIC Categories and Divisions. The relationship of definitions S1 to S5 with ISIC and their inter-relations are summarised in Annex I.
4. It should be noted that the present proposals are preliminary, they represent a basis for discussion. Comments by national and international experts and additional information on national practices will be incorporated into a revised version of it.

The overall versus the enumerative approach to defining services

5. Services as a whole can be defined in two ways. The first approach focuses on characteristics that all services have in common and which distinguish them from other economic categories, such as goods and factor services: this is the overall or general approach.

6. Several endeavours to formulate such a definition have been made, partly based on a single criterion, partly on several ones (services are invisible and intangible, services cannot be stored and transported, services lead to change in the condition of a person or a good belonging to some economic unit, services are customised, etc)<sup>(1)</sup>. However, neither a single nor a combination of criteria have yielded operational clear-cut definitions of services, mainly because services are very heterogeneous and are often intertwined with goods and factor services and are provided as a bundle.

7. The second approach consists in enumerating categories of economic activities or products which are equated with the universe of services. Such lists can be positive ones, indicating all the components that add up to total services; they can also be of a negative or residual nature. Lists of this kind relate to existing classifications, either of activities or of products.

8. The advantage of this second approach is that it delineates the universe of services more clearly than the overall approach. In fact, existing classifications are very detailed and provide definitions of the individual items which clarify boundary cases.

### Single versus multiple definitions

9. A single definition is not adequate for varying analytical purposes and for different institutional conditions. By contrast, a set of inter-related definitions is more flexible to satisfy a diversity of analytical requirements and to accommodate differing structural factors.

10. There are two methods of interlocking multiple definitions. The first version can be the narrowest one, and the last the broadest as is the case of monetary aggregates <sup>(2)</sup>. The ranking can also be organised conversely, with the first version representing the broadest one, and the following showing a steadily narrowing coverage.

### Main criteria of a possible definition

11. The definition proposed hereafter is enumerative. It is based on the United Nations International Standard Industrial Classification of all Economic Activities Revision 3 (ISIC), whose broad structure is reproduced in Annex II.

12. It is also a multiple definition covering five versions S1 to S5. S1 represents the central and, in principle, the broadest definition, and the following ones are progressively narrower.

#### Definition S1

13. The proposed definition corresponds to the following ISIC Revision 3 Categories:

- G Wholesale and retail trade, repair of motor vehicles, motor cycles and personal and household goods.
- H Hotels and restaurants
- I Transport, storage and communication
- J Financial intermediation
- K Real state, renting and business activities
- L Public administration and defence: compulsory social security
- M Education
- N Health and social work
- O Other community, social and personal service activities
- P Private households with employed persons
- Q Extraterritorial organisations and bodies

14. In terms of ISIC Revision 2 this definition encompasses the following Major Divisions:

- 6. Wholesale and retail trade and restaurants and hotels
- 7. Transport, storage and communication
- 8. Financing, insurance, real state and business services
- 9. Community, social and personal services.

15. This definition appears to be the most widely used. It is applied in the accounts of gross domestic product by industry in the National Accounts of the United Kingdom <sup>(3)</sup>, Italy <sup>(4)</sup>, Sweden <sup>(5)</sup> and the Netherlands <sup>(6)</sup>. It corresponds also to Japan's definition except that Japan excludes real state rent <sup>(7)</sup>.

16. A variant of S1 which includes public utilities is used for the "Experimental Service Production Indexes" of the Board of Governors of the US Federal Reserve System

#### Definition S2

17. This definition builds on S1, but includes Category F (Construction) and excludes Category K (Public administration and defence, compulsory social security). By the exclusion of Category K - which represents the "pure public goods" - Definition S2 approximates the concept of "market services"; it includes, however, non-market services relating to other Categories such as Category M (Education).

18. Definition S2 has been used for the classification of international trade in services, e.g. by the United States <sup>(8)</sup> and Australia <sup>(9)</sup>.

#### Definition S3

19. This definition is linked to S1, too. In order to arrive at it, not only Category K is deducted (as is the case of S2), but also Categories G (Wholesale and retail trade...) and I (Transport, storage and communications).

20. Positively expressed, it encompasses the following Categories:

- H Hotels and restaurants
- J Financial intermediation
- K Real estate, renting and business activities
- M Education
- N Health and social work
- O Other community, social and personal service activities
- P Private households with employed persons
- Q Extraterritorial organisations and bodies.

This definition is used in the National Accounts of Germany (10).

Definition S4

21. Definition S4 represents a further reduction of the coverage of S1: wholesale and retail trade, transport, storage and communications, financial intermediation and real estate activities are deducted.

22. Hence, the definition of S4 corresponds to:

- H Hotels and restaurants
- K (except Div. 70: Real estate activities) Renting and business activities
- L Public administration and defence; compulsory social security
- M Education
- N Health and social work
- O Other community, social and personal service activities
- P Private households with employed persons
- Q Extraterritorial organisations and bodies.

This definition is applied in the National Accounts of France (11).

Definition S5

23. This definition, used by the United States<sup>(12)</sup> is identical to S4, except that it excludes Category L (Public administration). It is tantamount to a hard-core definition of services. It corresponds to the following ISIC Categories:

- H Hotels and restaurants
- K (except Div. 70: Real estate activities). Renting and business activities.
- M Education
- N Health and social works
- O Other community, social and personal service activities
- P Private households with employed persons
- R Extraterritorial organisations and bodies.

### References

1. Drechsler, L. (1989). A note on the Concept of Services. Statistical Office of the United Nations. New York.
2. By way of example, the Bank of England uses a series of monetary aggregates, with M0 being the narrowest and M5 the broadest one (Bank of England Quarterly Bulletin, August 1989, page 353).
3. Central Statistical Office, United Kingdom National Accounts, 1989 Edition, page 24.
4. ISTAT, Conti economici nazionali, anni 1970-88, page 18.
5. Statistiska centralbyran. Nationalräkenskaper, Appendix 4, pages 18-23.
6. Central bureau voor de statistiek. Nationale rekeningen 1988, page 86.
7. Uno, K. (1989). Measurement of services in an input-output framework. North Holland Amsterdam etc. pages 24-25 and 58-59.
8. Whichard, Obie G. (1988), International Services: New Information on U.S. Transactions with Unaffiliated Foreigners, US Department of Commerce Survey of Current Business, October, pages 27-34.
9. Australian Bureau of Statistics, 1987-88 International Trade in Services.
10. Statistisches Bundesamt. Volkswirtschaftliche Gesamtrechnungen 1988, pages 158 and 159.
11. INSEE. Comptes et indicateurs économiques: Rapport sur les comptes de la Nation en 1989, page 62.



12. The United States definition of services (Executive Office of the President, Office of Management and Budget (1987), Standard Industrial Classification Manual, page 8) covers:

Major Group 70.	Hotels, rooming houses, camps and other lodging places
Major Group 72.	Personal services
Major Group 73.	Business services
Major Group 75.	Automotive repair, services, and parking
Major Group 76.	Miscellaneous repair services
Major Group 78.	Motion pictures
Major Group 79.	Amusement and recreation services
Major Group 80.	Health services
Major Group 81.	Legal services
Major Group 82.	Educational services
Major Group 83.	Social services
Major Group 84.	Museums, art galleries, and botanical and zoological gardens
Major Group 86.	Membership organisations
Major Group 87.	Engineering, accounting, research, management, and related services
Major Group 88.	Private households
Major Group 89.	Miscellaneous services

Annex IDefinitions of S1 to S5

ISIC Categories and Divisions	S1	S2	S3	S4	S5
I. Construction	-	X	-	-	-
G. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	X	X	-	-	-
H. Hotels and restaurants	X	X	X	X	X
I. Transport, storage and communications	X	X	-	-	-
J. Financial intermediation	X	X	X	-	-
K 70 Real estate activities	X	X	X	-	-
K 71-74 Renting and business activities	X	X	X	X	X
L. Public administration and defence; compulsory social security	X	-	-	X	-
M. Education	X	X	X	X	X
N. Health and social work	X	X	X	X	X
O. Other community, social and personal service activities	X	X	X	X	X
P. Private households with employed persons	X	X	X	X	X
Q. Extra-territorial organisations and bodies	X	X	X	X	X

Annex II

Extract from: I S I C Rev 3

Tabulation	Division	Description
Categories		
E	ELECTRICITY, GAS AND WATER SUPPLY	
	40	ELECTRICITY, GAS, STEAM AND HOT WATER SUPPLY
	41	COLLECTION, PURIFICATION AND DISTRIBUTION OF WATER
F	CONSTRUCTION	
	45	CONSTRUCTION
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES, MOTORCYCLES AND PERSONAL AND HOUSEHOLD GOODS	
	50	SALE, MAINTENANCE AND REPAIR OF MOTOR VEHICLES AND MOTORCYCLES; RETAIL SALE OF AUTOMOTIVE FUEL
	51	WHOLESALE TRADE AND COMMISSION TRADE, EXCEPT OF MOTOR VEHICLES AND MOTORCYCLES
	52	RETAIL TRADE, EXCEPT OF MOTOR VEHICLES AND MOTORCYCLES; REPAIR OF PERSONAL AND HOUSEHOLD GOODS
H	HOTELS AND RESTAURANTS	
	55	HOTELS AND RESTAURANTS
I	TRANSPORT, STORAGE AND COMMUNICATIONS	
	60	LAND TRANSPORT; TRANSPORT VIA PIPELINES
	61	WATER TRANSPORT
	62	AIR TRANSPORT
	63	SUPPORTING AND AUXILIARY TRANSPORT ACTIVITIES; ACTIVITIES OF TRAVEL AGENCIES
	64	POST AND TELECOMMUNICATIONS
J	FINANCIAL INTERMEDIATION	
	65	FINANCIAL INTERMEDIATION, EXCEPT INSURANCE AND PENSION FUNDING
	66	INSURANCE AND PENSION FUNDING, EXCEPT COMPULSORY SOCIAL SECURITY
	67	ACTIVITIES AUXILIARY TO FINANCIAL INTERMEDIATION

Tabulation Categories	Division	Description
K		REAL ESTATE, RENTING AND BUSINESS ACTIVITIES
	70	REAL ESTATE ACTIVITIES
	71	RENTING OF MACHINERY AND EQUIPMENT WITHOUT OPERATOR AND OF PERSONAL AND HOUSEHOLD GOODS
	72	COMPUTER AND RELATED ACTIVITIES
	73	RESEARCH AND DEVELOPMENT
	74	OTHER BUSINESS ACTIVITIES
L		PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY
	75	PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY
M		EDUCATION
	80	EDUCATION
N		HEALTH AND SOCIAL WORK
	85	HEALTH AND SOCIAL WORK
O		OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICE ACTIVITIES
	90	SEWAGE AND REFUSE DISPOSAL, SANITATION AND SIMILAR ACTIVITIES
	91	ACTIVITIES OF MEMBERSHIP ORGANIZATIONS N.E.C.
	92	RECREATIONAL, CULTURAL AND SPORTING ACTIVITIES
	93	OTHER SERVICE ACTIVITIES
P		PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS
	95	PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS
Q		EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES
	99	EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES