

Paris, draft. : 10th September 1993

STATISTICS DIRECTORATE

FINANCIAL INTERMEDIATION, EXCLUDING INSURANCE AND PENSION FUNDS:
THE 1993 SNA AND ASPECTS OF COUNTRY PRACTICES RELATING
TO PRICE AND VOLUME MEASURES OF OUTPUT

Contribution to the Eighth Meeting
of the Voorburg Group on Service Statistics
(Session 3)

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.

**FINANCIAL INTERMEDIATION, EXCLUDING INSURANCE AND PENSION FUNDS:
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1. This note deals with output of financial intermediation services excluding insurance and pension funds. It is divided into two sections:

- The first section presents the definition of financial intermediation services excluding insurance and pension funds in the 1993 System of National Accounts (SNA) and in the International Standard Industrial Classification of all Economic Activities, revision 3 (ISIC REV3). It also describes the treatment and measurement of output of these services in current prices. The SNA makes few recommendations specific to constant price measures of financial intermediation service output and in particular of financial intermediation services indirectly measured.
- The second section is restricted to providing some empirical evidence on OECD Member country practices in estimating constant price output. It describes the indices which are used to deflate output and the indices used as extrapolators of base year value added. The latter could possibly be used as proxy indicators for output as well, when deflators are not available. The information on country practices is derived from the responses to the OECD questionnaire on "The measurement of value added at constant prices in service activities/industries" (ESD/STAT/SERV(91)6REV1).

2. An Annex, relating to Section II, gives revised abstracts of the Note by the Secretariat prepared for the Meeting of Service Statistics Experts held at OECD in July 1993 entitled "The measurement of value added at constant prices in service activities/industries" (STD/SERV(93)7PART2 and PART3). It describes methods and indices used to derive constant price value added in financial intermediation services provided in the above mentioned questionnaire.

3. The two sections of this paper raise different questions which participants may wish to address:

-- in relation to the SNA:

- 1) Is "work-in-progress" conceivable for financial intermediation services?
- 2) Which method appears the most suitable/feasible to allocate financial intermediation services indirectly measured among uses?

-- in relation to price and quantity measures of output:

- 3) Which prices are most appropriate to build deflators of output of financial services?

- 4) A corollary to question 3 is: What would participants consider to be a minimal disaggregation of financial intermediation excluding insurance and pension funds?
- 5) Are extrapolators used to derive constant price value added acceptable proxies for deflators of gross output when price data are not available?

Section I : SNA definition of financial intermediation and treatment of financial intermediation services excluding insurance and pension funds

I.1 SNA Definition of financial intermediation excluding insurance and pension funds

4. "Financial intermediation may be defined as a productive activity in which an institutional unit incurs liabilities on its own account for the purpose of acquiring financial assets by engaging in financial transactions on the market. The role of financial intermediaries is to channel funds from lenders to borrowers by intermediating between them. They collect funds from lenders and transform, or repackage, them in ways which suit the requirements of borrowers. They obtain funds by incurring liabilities on their own account, not only by taking deposits but also by issuing bills, bonds or other securities. They use these funds to acquire financial assets, principally by making advances or loans to others but also by purchasing bills, bonds or other securities. A financial intermediary does not simply act as an agent for other institutional units but places itself at risk by incurring liabilities on its own account" (1993 SNA, Chapter IV, Institutional Units and Sectors).

5. Financial enterprises in the System include those enterprises classified under divisions 65, 66 and 67 of the International Standard Industrial Classification of all Economic Activities, revision 3 (ISIC REV3).

6. ISIC division 65 "Financial intermediation, except insurance and pension funding" includes:

-- monetary intermediation by central banks and other monetary institutions which obtain funds in the form of deposits. Deposits received by central banks "are used for clearance between financial institutions, supervising banking operations and possibly holding the country's exchange reserves and issuing, managing the country's currency and acting as banker to the government". Other monetary institutions include "banks, discount houses, saving banks, and also specialised institutions granting credit for house purchase that also take deposits" (ISIC REV3).

-- other financial intermediation such as financial leasing "where the term approximately covers the expected life of the asset and the lessee acquires substantially all the benefits of its use and takes all the risk associated with its ownership" and "Other credit granting" which includes "financial intermediation primarily concerned with making loans by institutions not involved in monetary intermediation" (ISIC REV3).

7. ISIC Division 66 Insurance and pension funding except compulsory social security includes life insurance, pension funding and non-life insurance.

8. ISIC Division 67 Activities auxiliary to financial intermediation includes "administration of financial markets, security dealing activities, activities auxiliary to financial intermediation n.e.c. and activities auxiliary to insurance and pension funding". (ISIC REV3).

9. This note deals with ISIC divisions 65 and part of 67, thus excluding insurance and pension funding and activities auxiliary to insurance.

10. The output of financial intermediation services excluding insurance and pension funds has special characteristics which differentiate these services from other services.

11. When financial intermediaries make charges to their customer for the intermediation services they provide or when they provide various kinds of auxiliary financial services, or business services as secondary activities: for example, currency exchange, advice about investments, the purchase of real estate, or taxation, the output is valued on the basis of the fees or commissions charged.

12. In fact, though, many financial intermediaries do not charge explicitly for the intermediation services they provide in which case there are no receipts from sales which can be used to value these services. Such output has to be valued indirectly.

1.2 The output of financial intermediation services indirectly measured (FISIM)

13. "The total value of FISIM is measured in the system as the total property income receivable by financial intermediaries minus their total interest payable, excluding the value of any property income receivable from the investment of their own funds, as such income does not arise from financial intermediation" (1993 SNA Chapter VI The Production Account).

14. "It is assumed that FISIM is purchased implicitly by borrowers paying higher interest rates than would be necessary if FISIM were charged for explicitly and by lenders receiving lower interest than would be necessary if FISIM were charged for explicitly." (SNA Annex 3).

15. Whenever the production of output is recorded in the System the use of that output must be explicitly accounted for elsewhere in the System. Hence FISIM must be recorded as being disposed of in one or more of the following ways - as intermediate consumption by enterprises, as final consumption by households, or as exports to non-residents.

16. The allocation of FISIM among different categories of users is equivalent to reclassifying certain parts of interest payments as payments for services. This reclassification has important consequences for the values of certain aggregate flows of goods and services - output, intermediate and final consumption, imports and exports - which affect the values added of particular industries and sectors, and also total gross domestic product" (1993 SNA, Chapter VI, The Production Account).

17. The 1993 SNA suggests that "the allocation between different uses could be made on the basis of the difference between interest paid or received by financial intermediaries and a "reference rate" that does not include the value of financial intermediation services, such as an inter-bank lending rate or a central bank loan rate, or some other appropriate method" (1993 SNA, Annex, Changes from the 1968 SNA)

18. FISIM is calculated in the same way as in the 1968 SNA but the allocation of FISIM to users is on the other hand one of the new features of the 1993 SNA. In the 1968 version the whole of FISIM was allocated as intermediate consumption of a notional industry.

I.3 Valuing current price output in general in the SNA

19. In the SNA the value of output is equal to the value of total sales or other uses of goods and services produced as outputs plus the value of changes in the inventories of goods produced as outputs.

20. Services are usually consumed as they are produced. Inventories of services do therefore usually not exist. Yet, some services go through a process of production which may exceed the accounting period (architectural or engineering services, for example). Intermediate inputs are continually being consumed in the production process during the accounting period so some corresponding output must be recorded to avoid obtaining meaningless figures for value added. The corresponding output is to be considered as work-in-progress and treated as one component of inventories of outputs held by producers. (1993 SNA, Chapter VI, The Production Account).

21. The SNA recommends that output be valued at the basic prices at which they are sold. If valuation at basic prices is not feasible, they may be valued at producers' prices.

22. Valuing work-in-progress, at these prices cannot by definition be done since the good or service is not in a state to be sold. Various solutions are proposed in the SNA:

- stage payments made by the purchaser may be used to approximate the value which is to be included in output of the accounting period.
- Work-in-progress may also be estimated at total production costs incurred during the accounting period plus a mark-up for expected operating surplus or estimated mixed income.
- When the expected sales price is itself continually increasing during the process of production as a result of general inflation each addition to work-in-progress should be valued using the expected sale price at that point in time.

1.4 Derivation of price and volume measures of output

23. The 1993 SNA integrates supply and use tables and input-output tables in the overall system. They are seen as "the most complete consistent framework for constant price estimation [by providing]

- 1) interdependent measures of prices and volumes
- 2) an important check on the numerical consistency and reliability of the entire set of such measures, interlinking values at constant and current prices, value and volume indices and deflators" (1993 SNA, Chapter XV Supply and Use Tables and Input-Output).

24. For the estimation of volume measures the SNA expresses a preference for deflation rather than extrapolation methods. Price indices tend to be more stable over time and can take into account new products as they appear on the market and progressively eliminate obsolete products without creating breaks in time series. Quantity relatives may take on extreme values which may vary between infinity and zero as new products are offered on markets and old ones withdrawn. It does nevertheless recognise that in some cases prices may not be available, whereas quantity data are.

1.5 Derivation of price and volume measures of financial intermediation services excluding insurance and pension funds

25. Few recommendations are made for deriving constant price estimates of financial intermediation services excluding insurance and pension funds in the SNA. This difficult problem has to some extent been left pending.

26. The output of financial intermediaries comprise two very different components:

- some financial intermediation services which are directly charged to customers and auxiliary financial intermediation services for which a fee or commission is levied: a price index constructed on the basis of these fees and commissions could serve as deflator for the output of this category of financial intermediation services.
- financial intermediation services which are not charged directly to customers: there is therefore no observable price index for FISIM by definition. they are charged for indirectly by applying higher interest rates than would be necessary if a direct charge were levied. No definition of an appropriate deflator for FISIM is given. A possible solution could be to use for FISIM the same deflator as for financial services which are directly measured.

27. Extrapolation of base year output, on the other hand, requires availability of quantity measures of financial intermediation services output. No specific method is recommended to produce quantity measures of these services.

Section II : Country practices

II.1 Indices used to derive constant price measures of financial intermediation services excluding insurance and pension funds.

28. Countries have implemented different methods to derive constant price value added in financial intermediation services.

- i) The countries which use the double deflation method have constructed deflators for current price output. This is the case of Japan, Germany, France, Italy, Canada, Denmark and Finland (see Annex I.1).

29. The deflators used to obtain constant price output relate prices of financial intermediation services to their production costs or components thereof, to consumer prices or to domestic demand prices. In some cases the price index of financial services explicitly charged to customers is also used to deflate FISIM.

30. The deflators used are listed below (Annex part I.2):

- a producer price index;
- a unit value index;
- a weighted average wage rate index and a net price index;
- an implicit price index obtained from deflated total weighted value of assets and liabilities and deflated explicit service charges;
- a domestic demand price index;
- specific price indices (not described in detail);
- composite price indices obtained by multiplying the price index of demand by the interest spread;
- a main inputs price index;
- the relevant components of the consumer price index and the price index for commissions of brokers and dealers;
- an estimated price index obtained from price indices of intermediate consumption goods and wage indices of the industry;
- an implicit price index of securities commissions for mutual fund sales, an implicit GNP price index for other revenues and security exchanges, a composite index of implicit price deflators of commissions, underwriting and GNP for commodity brokers, dealers, and exchanges of securities and commodities.

31. ii) When current price value added is directly deflated the deflators used could be considered appropriate for deflating gross output as well.

32. Belgium and Spain deflate current price value added directly using respectively:

- an implicit output price index (constant price output is obtained by deflating current price output by specific price indices and the consumer price index),

- the consumer price index of services excluding rents.

33. iii) When base year value added is extrapolated, the indicators used could represent an alternative to deflation to obtain volume measures of gross output as well.

34. The countries which extrapolate base year value added use a variety of indicators related to volume measures of financial intermediation or part of it, to volume or physical quantity measures of factor inputs:

- a volume index of total credits and debits;

- a volume index of deposits;

- an index of numbers employed;

- the index of man-hours worked, or of number of hours worked, sometimes adjusted for labour productivity change;

- an average index of the deflated wage bill index and the index of man-years worked;

- an index of a weighted volume index of intermediate consumption and the deflated wage bill index;

- an output volume index for which the GDP price index is used as deflator;

- an output volume index for which the retail price index is used as deflator of deposits and loans and an output physical quantity index of number of transactions and an index of numbers employed adjusted for productivity change.

II.2 Disaggregation of financial intermediation services excluding insurance and pension funds.

35. Disaggregation of financial intermediation excluding insurance and pension funds differs between countries.

- Some countries use the same type of index for all financial intermediation including insurance and pension funding and activities auxiliary to financial intermediation.
- Some use different indices for:
 - .. financial intermediation services directly measured FISIM.
 - .. financial intermediation excluding insurance and pension funding and activities auxiliary to financial intermediation.
 - .. monetary intermediation, other financial intermediation and activities auxiliary to financial intermediation.
 - .. the Reserve Bank, monetary intermediation and other financial intermediation.
- Some countries exclude activities auxiliary to financial intermediation which are classified with business services.

ANNEX I.1

MEASUREMENT OF VALUE ADDED AT CONSTANT PRICES IN SERVICE ACTIVITIES

METHODS OF MEASUREMENT

Abstract from STD/SERV(93)7/PART2 (revised)

MEASUREMENT METHODS OF VALUE ADDED AT CONSTANT PRICES IN SERVICE INDUSTRIES/ACTIVITIES

Abstract from STD/SERV(93)7/PART2

ISIC Revision 3		Double indicators			Single indicators										Other
Group/ class N°	Activity	Input/Output related			Output related			Input related							
		Double deflation	Double extrapolation	Extrapolation deflation	Deflated value added	Extrapolated value added		Deflated value added		Extrapolated base year value added					
						Output price	Output volume	Output physical quantity	Intermediate consumption price	Wage rate	Intermediate consumption volume	Deflated wage bill	Input physical quantity	Numbers employed	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
J.	5. Financial intermediation	GE (3) FR				LU				NE	NE			AL (17)	
851	Monetary intermediation	JA GE FR IT (5) CA DE FI (10)		LU NO	BE (8) SP(14)	UK AU IR(13) LU SW NZ	UK				IC		US (1) UK* IC	SE*	
859	Other financial intermediation	JA GE (4) FR DE FI (11)		LU NO	SP(14)	UK AU LU NZ (18)	UK				IC		UK IC NZ (19)	SE*	
8801	Life insurance	US (2) JA GE FR IT (6) CA(7) DE		FI (12) NO	UK BE (9) SP (15)	IR NZ	AU IR LU			SW (16)	IC		IC	SE*	

Identifies indicators adjusted for labour productivity change.

NOTES

1. US Includes financial leasing (6591) and other credit granting (6592).
2. US Concerns life insurance (6601), pension funding (6602), non life insurance (6603) and activities auxiliary to insurance and pension funding (672).
3. GE Excludes activities auxiliary to financial intermediation (67).
4. GE Excludes financial leasing (6591).
5. IT Monetary and other financial intermediation are grouped together (651 and 659).
6. IT Life and other insurance are grouped together.
7. CA Life (6601) and non-life insurance (6602 - 6603) are grouped together in the insurance industry.
8. BE Monetary and other intermediation are grouped together. They include activities auxiliary to financial intermediation except insurance and pension funding (671) and exclude part of other monetary intermediation (6519).
9. BE Includes life and other insurance (except compulsory social security) and activities auxiliary to insurance and pension funding (672).
10. FI Concerns the interest margin.
11. FI Concerns other receipts.
12. FI Concerns compulsory insurance.
13. IF Includes monetary intermediation (651) and other financial intermediation (659).
14. SP Excludes activities auxiliary to financial intermediation.
15. SP Covers all insurance activities.
16. SW Covers all insurance activities, excludes activities auxiliary to insurance.
17. AL Applies to financial intermediation (group J), real estate, renting and business activities (group K) except research and development (73).
18. NZ Excludes the Reserve Bank.
19. NZ Applies to the Reserve Bank.

MEASUREMENT METHODS OF VALUE ADDED AT CONSTANT PRICES IN SERVICE INDUSTRIES/ACTIVITIES

ISIC Revision 3		Double Indicators			Single Indicators										Other	
Group/ class N	Activity	Input/Output related			Output related		Input related									
		Double deflation	Double extrapolation	Extrapolation /deflation	Deflated value added	Extrapolated value added		Deflated value added		Extrapolated base year value added						
					Output price	Output volume	Output physical quantity	Intermediate consumption price	Wage rate	Intermediate consumption volume	Deflated wage bill	Input physical quantity	Numbers employed	Hours worked		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
6602- 6603	Other insurance (except compulsory social security)	JA GE FR DE		FI (6) NO		UK AU FR NZ	LU				IC		IC	SE*		
67	Activities auxiliary to financial intermediation	US (1) JA GE (4) FR CA (5)		US (2)		UK AU FR LU NZ	UK				IC		US (3) IC	SE*		

Identifies indicators adjusted for labour productivity change.

NOTES

1. US Concerns mutual fund sales, underwriting and security exchanges.
2. US Concerns commissions of security brokers and dealers.
3. US Concerns holdings and other investment companies.
4. GE Includes financial leasing (6591).
5. CA Includes financial leasing (6591), other financial intermediation n.e.c. (6599), real estate activities with own or leased property (701), real estate on a fee or contract basis (702) and part of other credit granting (6592).
6. FI Concerns other insurance.

ANNEX 12

MEASUREMENT OF VALUE ADDED AT CONSTANT PRICES IN SERVICE ACTIVITIES

INDICES USED

Abstract from STD/SERV(93)7/PART3 (revised)

J. Financial intermediation

1. DOUBLE DEFLATION

65 66 67	Financial intermediation	Producer price index	FR
65 6601 67	Financial intermediation except insurance and pension funding; life insurance; activities auxiliary to financial intermediation	Unit value index	JA
65 6601	Financial intermediation except insurance and pension funding; life insurance	Weighted average wage rate index and net price index	DE
65	Financial intermediation except insurance and pension funding	Implicit price index (obtained from deflated total weighted value of assets and liabilities and deflated explicit service charges)	CA
part 65	Financial intermediation except insurance and pension funding (excl. imputed bank services)	Specific price index	GE
	Financial intermediation services directly measured	Domestic demand price deflator	IT
	Financial intermediation services indirectly measured	Special price index: Current year domestic demand deflator (Dt) is multiplied by the ratio of indices of the interest margin (m) to the value of intermediation by the Bank of Italy (M) for the current and base year period Deflator of imputed bank services: $DIBSt = \frac{Dt \times mt/Mt}{mo/Mo}$	IT
part 651	The interest margin	Composite price index (obtained by multiplying the price index of demand by the interest spread)	FI

part 651 659 67	Monetary intermedia- tion (excl. the interest margin), other financial inter- mediation, activities auxiliary to financial intermediation	Main inputs price index	FI
660 672	Insurance and pension funding except compulsory social security; activities auxiliary to insurance and pension funding	Implicit price index for private consumption expenditure (relevant components)	US
		Implicit output price index (output volume is obtained by extrapolation of base year output; volume indices are obtained by deflation using the consumer price index).	GE
6601	Life insurance	Output volume index obtained by deflating premium income for each type of insurance by all- items CPI using base year unit costs for issuing the various types of insurance as weights	CA
part 66	Compulsory private insurance	Wage rate index	FI
6602 6603 67	Pension funding; non life insurance; activities auxiliary to financial intermedia- tion	Weighted average industrial workers' wage rate index, consumer price index (for casualty insurance), net consumer price index (for automobile insurance), construction price index for one-family houses	DE
6602 6603	Pension funding Non life insurance	Corporate service price index and consumer price index	JA
		Implicit output price index (output volume is obtained by extrapolating base year output; volume indicators are obtained by deflation using special price indices)	GE

		Implicit price index obtained by dividing the current price index by a quantity index based on the number of insurance contracts	IT
		Implicit output price index (obtained from deflated premiums for property and casualty insurance, from number of persons covered weighted by base year premiums for accidental sickness)	CA
part 6603	Motor vehicle insurance	Consumer price index (for car insurance)	NO
67	Activities auxiliary to financial inter- mediation	Various price indices of rent, consumer price index (relevant components) implicit price index for commissions of brokers and dealers.	DE
		Special estimated price index obtained from price indices of intermediate consumption goods and wage indices of the industry	GE
671	Activities auxiliary to financial inter- mediation, except insurance and pension funding	Implicit price index of securities commissions (for mutual fund sales), implicit GNP price index (for other revenues, security exchanges), composite index of implicit price deflators for commissions, under- writing and GNP (for commodity brokers, dealers, and exchanges of securities and commodities)	US

2. EXTRAPOLATION/DEFLATION

65 part 66	Financial intermediation except insurance and pension funding; insurance and pension funding (except motor vehicle insurance)	Index of man-hours worked	NO
Part 65	Other financial intermediation (imputed bank services)	Volume index of the sum of credits and debits of financial institutions (price index of national final uses is used as deflator)	GE
651	Monetary intermediation	Volume index of deposits	LU
part 66	Voluntary insurance	Output physical quantity index (number of policies) or output volume index (consumer price index relevant components used as deflator)	FI
part 67	Security brokers and dealers	Output physical quantity index (number of public security orders)	US

3. DEFLATION OF VALUE ADDED

65 66 67	Financial intermediation	Implicit output price index (specific price indices and consumer price index are used to deflate output)	BE
		Consumer price index of services excl. rents	SP
6601	Life insurance	Volume index of adminis- trative costs (average earnings index is used as deflator)	UK

4. EXTRAPOLATION OF VALUE ADDED

65 66 67	Financial intermediation	Average of deflated wage bill index and of index of man-years worked	IC
		Index of number of hours worked adjusted for 2% increase in productivity	SE

		Index of number of hours worked	AL
		Weighted volume index of intermediate consumption and deflated wage bill	NE
65	Financial intermediation except insurance and pension funding	Various output volume indices	AU
		Output volume index based on monetary aggregates deflated by overall CPI. Building Society advances deflated by house price index	IR
651	Monetary intermediation	Index of numbers employed	US
		Output volume index (retail price index used as deflator of deposits/loans) and output physical quantity index of number of transactions and index of numbers employed adjusted for productivity change	UK
		Output volume index (GDP price index used as deflator)	SW
part 651 659	Monetary interme- diation; other financial intermediation	Output volume index	NZ
part 651	Reserve Bank	Index of numbers employed	NZ
659	Other financial inter- mediation	Output volume index (Retail price index used as deflator for building society liabilities) and output physical quantity index of number of advances made by building societies and index of numbers employed	UK
		Volume index of deposits	LU

66	Insurance and pension funding, except compulsory social security	Output physical quantity index	LU
		Volume index of intermediate consumption (consumer price index for insurance used as deflator)	SW
		Output volume index based on deflated sums assured (life and fire insurance) or deflated premiums (motor, personal and other accident insurance) or deflated commissions paid	NZ
6601	Life insurance	Output physical quantity index (number of contracts)	AU
		Composite volume index derived as weighted average of value of funds deflated by CPI and number of new policies issued	IR
6602	Pension funding;	Volume index of total premiums net of reinsurance (specific consumer price index used as deflator)	UK
6603	non-life insurance		
		Output (premiums - claims) volumes index deflated by price index specific to type of insurance (e.g. Fire by building and construction index; car insurance by car insurance component of the consumer price index)	IR
6602	Pension funding;	Output volume index (consumer price index used as deflator)	AU
6603	non-life insurance;		
67	activities auxiliary to financial intermediation		

67	Activities auxiliary to financial inter- mediation	Output volume index of total premiums net of reinsurance (specific consumer price index used as deflator) and output physical quantity index of number of trans- actions in securities	UK
		Implicit output volume index of finance and insurance (for most of the sector). Output volume index derived by deflating stamp duties paid on stocks and shares by price index of stocks and shares for stockbroking	IR
		Output volume index (consumer price index used as deflator)	LU
part 67	Holding and other investment companies	Index of number of persons employed	US

ANNEX I.3

Unabridged names of methods given in columns 3 to 16

Column 3 :	Deflation of current price gross output and intermediate consumption by price indices.
Column 4 :	Extrapolation of base year gross output and intermediate consumption by volume indices.
Column 5 :	Extrapolation of base year gross output by a volume index and deflation of current price intermediate consumption by a price index, ou vice versa.
Column 6 :	Direct deflation of current price value added by a gross output price index.
Column 7 :	Extrapolation of base year value added by a gross output volume index.
Column 8 :	Extrapolation of base year value added by an output index based on physical quantity data.
Column 9 :	Deflation of current price value added by an intermediate consumption price index.
Column 10 :	Deflation of current price value added by a wage rate index.
Column 11 :	Extrapolation of base year value added by an intermediate consumption volume index.
Column 12 :	Extrapolation of base year value added by a deflated wage bill index.
Column 13 :	Extrapolation of base year value added by a physical quantity index of input(s) other than labour.
Column 14 :	Extrapolation of base year value added by an index of numbers employed (the answer carries no asterisk) or by an index of numbers employed adjusted for labour productivity change (the answer carries an asterisk).
Column 15 :	Extrapolation of base year value added by an index of the number of hours worked (the answer carries no asterisk) or by an index of the number of hours worked adjusted for labour productivity change (the answer carries an asterisk).
Column 16 :	Other methods.

ANNEX I.4**ABBREVIATION USED FOR MEMBER COUNTRY NAMES**

Abbreviation	Country	Abbreviation	Country
US	United States	IR	Ireland
JA	Japan	IC	Iceland
GE	Germany	LU	Luxembourg
FR	France	NE	Netherlands
UK	United Kingdom	NO	Norway
IT	Italy	SP	Spain
CA	Canada	SE	Sweden
AU	Austria	SW	Switzerland
BE	Belgium	AL	Australia
DE	Denmark	NZ	New Zealand
FI	Finland		