

Topic (iii): Metadata and quality

**METADATA SYSTEM FOR THE OECD'S *MAIN ECONOMIC INDICATORS***

Submitted by OECD<sup>1</sup>

**Summary**

The purpose of this paper is to provide a brief outline of the metadata system currently being developed for the OECD's monthly *Main Economic Indicators* (MEI). The focus of the discussion is on metadata content issues rather than on IT issues in this area, though brief mention is given to some of the IT issues considered in the design of the MEI metadata system. A number of the elements of the system described are already in place, though work is continuing with regards to both metadata content and the further integration of the various elements. The broad aims of the system are:

- to make the methodologies used in the compilation of the indicators by national agencies and other international organisations more transparent to users;
- whilst at the same time minimising the reporting burden on the providers of metadata; and
- ensuring that the metadata system put in place for MEI is sustainable, both in terms of its' initial development and on-going maintenance.

The focus of metadata discussed in the paper is statistical methodological information describing current practices of individual countries in the compilation of the statistics collected by the OECD. However, the system of metadata used for the MEI encompasses a number of other elements designed to lend transparency to the short-term economic indicators published monthly by the Organisation. These other elements comprise:

- existing international statistical guidelines and recommendations for short-term economic indicators;
- target definitions derived from those international standards;
- the list of MEI target short-term economic indicators (i.e. what the OECD would like to collect for each country); and
- the MEI data inventory that outlines what the OECD actually collects and disseminates.

The paper concludes with a brief outline of areas where the further collaboration between the OECD and other international organisations and national agencies in the field of metadata is required for all areas of statistics, not just those published in MEI. These comprise:

- the adoption of common terminology by different organisations through the development of common glossaries of statistical terms, in particular for data element definitions, based on existing international statistical guidelines and recommendations;

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- development of standards for the presentation of metadata on websites. Issues that need to be considered here include navigation and search facilities, regular maintenance, etc;
- IT infrastructures and facilities for data and metadata exchange;
- issues related to the development of standards to facilitate linkage of metadata located on the websites of international organisations and national agencies. There is a need to develop guidelines on best practice to overcome the problem of the instability of many URLs due to frequent changes made to the websites of national and international organisations.

## I. INTRODUCTION

1. The purpose of this paper is to provide a brief outline of the metadata system currently being developed for the OECD's monthly *Main Economic Indicators* (MEI)<sup>2</sup>. The focus of the discussion is on metadata content issues rather than on IT issues in this area, though brief mention (in Section 8) is given to some of the IT issues considered in the design of the MEI metadata system. A number of the elements of the system described in this paper are already in place, though work is continuing with regards to both metadata content and the further integration of the various elements of the system. The broad aims of the system are:

- to make the methodologies used in the compilation of the indicators by national agencies and other international organisations more transparent to users;
- whilst at the same time minimising the reporting burden on the providers of metadata; and
- ensuring that the metadata system put in place for MEI is sustainable, both in terms of its' initial development, and on-going maintenance.

2. Metadata in the context of the paper refers to information needed for the production and use of statistical data. Metadata in its broader sense provides information on: definitional content; processes for the collection, processing, storage and dissemination of data; measures of quality; and information on IT and related issues. The focus of metadata discussed in the paper is statistical methodological information describing current practices of individual countries in the compilation of the statistics collected by the OECD. However, the system of metadata used for the MEI encompasses a number of other elements designed to lend transparency to the short-term economic indicators published monthly by the Organisation. These other elements comprise:

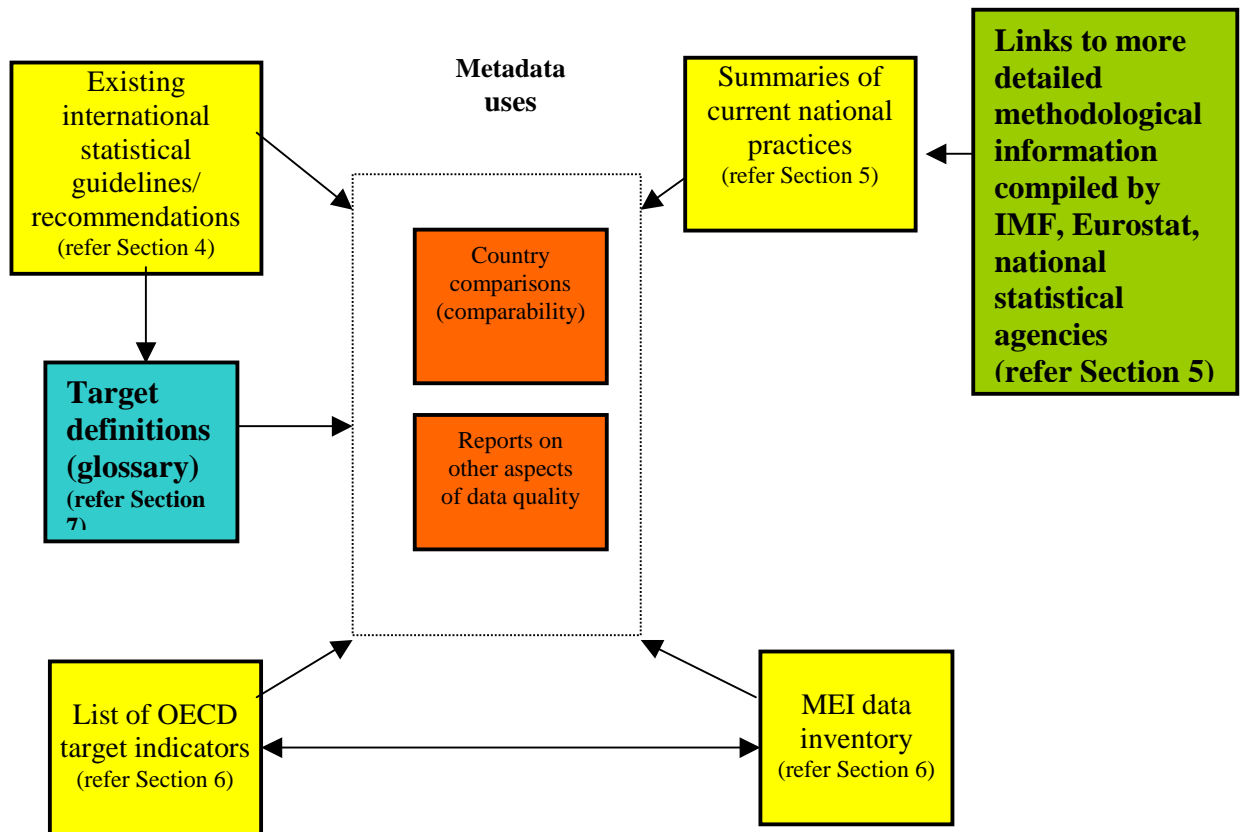
- existing international statistical guidelines and recommendations for short-term economic indicators;
- target definitions derived from those international standards;
- the list of MEI target short-term economic indicators (i.e. what the OECD would like to collect for each country); and
- the MEI data inventory that outlines what the OECD actually collects and disseminates.

3. The relationship between these elements is illustrated in the following diagram.

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<sup>2</sup> The MEI provides an overall view of short-term economic developments through presentation of an extensive range of specific short-term economic indicators covering: national accounts, production, business and consumer opinion surveys, composite leading indicators, manufacturing, construction, domestic demand, labour market indicators, prices, finance, foreign trade, and balance of payments. Further information about MEI is available on the OECD website at [http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-relevant\\_links-notheme-15-no-no-196-0,FF.html](http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-relevant_links-notheme-15-no-no-196-0,FF.html). These indicators are well known and widely used instruments for the formulation of economic policy at the national level and by international organisations such as the OECD, IMF and the European Central Bank (ECB).

## Elements of the MEI metadata system



4. Existing international statistical guidelines and recommendations are the source of the definitions for the MEI target short-term indicators, i.e. the short-term economic indicators the OECD would like to collect from each Member country. The MEI data inventory provides a detailed list of what the OECD actually collects from those countries, either directly or via other international organisations. Current national practices on how each short-term economic indicator is actually compiled are provided by national agencies (either directly or via other international organisations) in the form of statistical methodological information.

5. These various metadata elements are used in comparisons of current national statistical practices such as those presented in the *Main Economic Indicators: Comparative Methodological Analysis* series which uses national metadata to compare key methodological aspects for a limited number of short-term economic indicators<sup>3</sup>.

## II. METADATA AND DATA QUALITY

6. An emerging use of metadata that has received more attention by both national agencies responsible for the initial collection and compilation of statistical series and international organizations, is assessing the “quality” of statistics.<sup>4</sup> Although there is no universally accepted definition of the term, data

<sup>3</sup> The first publication in this series covering short-term economic indicators for industrial production, construction and retail trade was published in January 2002. Other publications in the series are currently being produced for price indices (consumer, producer and construction) and for employment and unemployment indicators.

<sup>4</sup> Both Eurostat and the IMF have been particularly active in this area in recent years. The IMF’s Data Quality Reference Site (DQRS) provides a comprehensive list of references on the use of metadata to assess data quality, quality concept issues and the experiences of a number of individual countries in the assessment of data quality ([http://dsbb.imf.org/dqrs\\_intro.htm](http://dsbb.imf.org/dqrs_intro.htm)).

quality covers a number of dimensions. For the purpose of this paper the Eurostat<sup>5</sup> definition is used. This definition covers seven data quality elements, namely: relevance of statistical concepts; accuracy; timeliness; clarity and accessibility of statistics; comparability; coherence; and completeness. The delivery of statistics that embody these elements of quality (within constraints and the various tradeoffs required) is the responsibility of national statistical agencies and international organisations alike. In reality, data quality is largely dependent on use. Because their needs vary, only users are in a position to make a true assessment of data quality. As a result, the approaches for measuring the quality of statistics also vary considerably. However, the common element to all approaches is that to some extent they each require access to appropriate metadata.<sup>6</sup>

### III. SUSTAINABLE METADATA

7. The issue of sustainability is also particularly important as both international and national experience provides many examples of elaborate metadata structures that have not been maintained by branch statisticians following their initial development. The initial collection and subsequent on-going maintenance of statistical metadata is a costly exercise for any organisation and investment of scarce resources in this area can only be justified if the compiled text is used. For this reason, careful thought needs to be given to the possible uses of such metadata, metadata content and the amount of detail to be included in databases, etc, before the design of an elaborate IT metadata framework is undertaken.

8. Finally, the development of a viable and sustainable corporate OECD metadata strategy requires an equal partnership between IT specialists and statisticians, the former having responsibility for technical infrastructure, the latter for content. Long-term viability and maintenance of corporate metadata requires engaging statisticians and users in the utility of the metadata facility.

### IV. INTERNATIONAL GUIDELINES FOR SHORT-TERM ECONOMIC INDICATORS

9. Over the last two or three decades an extensive range of guidelines and recommendations for most of the short-term economic indicators published in MEI have been prepared by international organisations working with national statistical institutes and other agencies responsible for their compilation and dissemination. The main objective of such guidelines and recommendations is the development of best practice in the collection, compilation and presentation of the indicators. The use of best practice also contributes towards making the indicators more comparable. The content of the guidelines varies, though they normally include a number of dimensions such as definitions of key terms, classifications and recommendations on best practice for the collection, compilation and presentation of statistics.

10. A comprehensive list of current international guidelines and recommendations is maintained by the United Nations Statistical Division (UNSD) on their website, *Methodological Publications in Statistics* (<http://esa.un.org/unsd/progwork>).<sup>7</sup> The list includes international guidelines relevant for almost all of the short-term indicators published in MEI. The list is useful in its own right as it provides ready access to what commentators generally refer to as “international statistical standards”. It also helps to identify areas where standards are non-existent or out of date. Finally, it provides a reference for those wishing to know whether existing standards are currently being developed or modified. The UNSD site also includes statistical standards developed by Eurostat<sup>8</sup>.

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<sup>5</sup> *Assessment of Quality in Statistics*, Eurostat, 4-5 April 2000.

<sup>6</sup> These and other aspects of the quality of OECD statistics are described in the Organisation’s Quality Framework currently being developed.

<sup>7</sup> Existing international classifications are also listed on a Eurostat site - <http://europa.eu.int/comm/eurostat/ramon>

<sup>8</sup> Eurostat guidelines, delivered in the form of “Council Regulations”, are binding for European Union member countries and are therefore normally more specific with regard to the statistical characteristics of data than recommendations issued by other international organisations. These Regulations are also being adopted by many eastern and southern European countries as part of the process for gaining membership to the European Union.

11. The majority of indicators published in MEI have been prepared by national agencies primarily to meet the requirements of policy departments within their own country. In most instances, the indicators have been developed within international guidelines and recommendations. However, because of resource constraints or specific national requirements, national practices sometimes depart from these guidelines. These departures may impact on the comparability of statistics compiled by different countries. The operative word is “may”, because some departures from international guidelines could have little actual impact on comparability, particularly at the broad aggregate level. It should also be emphasised that national departures from international guidelines and recommendations is not necessarily an indication of diminished data quality as a whole, especially from the perspective of national users.

12. Methodologies used for compiling most of the short-term economic indicators published in MEI are not completely comparable across countries. The extent of comparability varies from series to series. For some series (e.g. PPIs, hourly earnings) the differences are significant, for others less so. International statistical comparability, whilst a desirable goal for cross-country analysis, is seldom achieved. In many instances, the most that can be achieved is for countries to compile series within the broad boundaries of existing international statistical guidelines and recommendations, and provide sufficient methodological information to enable the user to assess whether differences in methodology have any significance in relation to the analysis on hand.

## V. STATISTICAL METHODOLOGICAL INFORMATION FOR INTERNATIONAL COMPARISONS

13. The notion of every end-user referring to detailed methodological information is somewhat idealistic and seldom occurs in reality. In recognition of this, the approach for presenting methodological information used for MEI is similar to one described by Eurostat<sup>9</sup> in that such information is best presented as layers within a pyramid. This approach was discussed in more detail in the OECD paper presented at the last METIS meeting in November 2000 in Washington DC<sup>10</sup>. For any specific statistical series (e.g. CPI, PPI, industrial production index, unemployment rate, etc.) the methodological information describing the data becomes more detailed as one moves down from the apex of the pyramid.

14. For any specific statistical series published in MEI (e.g. CPI, PPI, industrial production index, unemployment rate, etc.) the methodological information describing the data becomes more detailed as one moves down from the apex of the pyramid. The various layers in the pyramid in the context of MEI comprise:

- table headings and footnotes;
- explanatory notes;
- sources and definitions that provide a brief outline of current national practices for each country summarised under four broad headings (definition, coverage, collection and calculation)<sup>11</sup>. This is the only metadata actually stored in the MEI database where it is linked directly to the statistical indicators they describe;

<sup>9</sup> In the paper, *The Metadata Problem in a European Context*, written by Steven Vale and Marco Pellegrino for the Eurostat Workshop on Statistical Metadata, Luxembourg, 14-15 February 2000.

<sup>10</sup> “OECD Experience in the Co-ordination by International Agencies of Collection and Dissemination of Metadata for Interpretation and Evaluation of Data”, Denis Ward, November 2000, OECD. Available at <http://www.unece.org/stats/documents/2000.11.metis.htm>.

<sup>11</sup> Sources and definitions metadata are published in paper publication, on the OECD website (<http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-document-notheme-15-no-no-18331-0,FF.html>) and in the MEI CD-ROM where it is updated monthly. The latest paper edition of the OECD publication, *Main Economic Indicators: Sources and Definitions*, was released in July 2000.

- sources and methods information that contains more detailed methodological information on individual country practices collected and disseminated on the basis of a detailed model, template or prompt points<sup>12</sup>;
- methodological information disseminated by national statistical institutes in publications and/or on websites. These are potentially the source of the most detailed methodological information available. Some (though not all) OECD Member countries publish very detailed concepts, sources and methods for a number of their key economic indicators. The provision of more extensive methodological information, and making it more readily available to users through dissemination on the web, is now receiving greater recognition.<sup>13</sup> However, the national practices of OECD Member countries in this area vary considerably with regard to the amount of methodological detail provided on their websites (even in the national language), frequency of updating, its proximity to the statistics and ease of access by users.

15. A more detailed description of these layers was provided in the METIS paper referred to above presented by the OECD in November 2000.

16. Most users of methodological information disseminated by the OECD and other international agencies in the context of the dissemination model outlined above merely access the top layer. If they require more detailed information on specific methodological aspects to determine the relevance of the data to their use, they may have to search through succeeding layers where more detailed methodological information is provided. They may ultimately need to refer to methodological information disseminated by national agencies.

17. The normal roles of the statistician, in relation to statistical methodological information, primarily entail its collection, verification and dissemination. To these should be added the task of giving it structure to provide a clear path that enables users to dig as deeply as necessary without being buried in enormous amounts of text. In addition to helping others make use of statistical methodological information, statisticians in international organisations (and elsewhere), themselves use it in the evaluation and assessment of data quality and comparability.

18. The basic principles underlying content issues in the MEI metadata system are:

- the collection and maintenance of minimal summary methodological information in the MEI database consistent with the primary objective of providing appropriate transparency to the statistics they describe; and
- to make maximum use of more detailed sources and methods type metadata compiled and disseminated on the websites of other international organisations and national agencies through the creation of URL linkages to metadata stored in the MEI database in lieu of direct collection by the OECD.

19. Minimal information in the context of MEI means that the collection and storage of metadata on OECD databases is restricted to the four broad sources and definitions headings described above. The provision of more detailed metadata for MEI indicators is now by and large restricted to URL links to metadata located on the websites of other international organisations and national agencies.

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<sup>12</sup> Examples of sources and methods publications are the various methodological publications produced for MEI for CPI, PPI, construction price indices, labour and wage statistics and domestic finance statistics. These are located on the OECD website at <http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-document-notheme-15-no-no-18317-0,FF.html>. The IMF, ILO and Eurostat have also published sources and methods methodological information on short-term indicators.

<sup>13</sup> Examples of such publications include: concepts, sources and methods publications produced by the Australian Bureau of Statistics for CPI, balance of payments, PPI; metadata publications produced by Statistics Canada for CPI, labour force surveys; Statistics New Zealand for PPI, CPI, balance of payments, quarterly national accounts; US Bureau of Labour Statistics in its *Handbook of Methods* for PPI, CPI, household labour force surveys, and compensation surveys. This list is by no means exhaustive.

20. Unfortunately, the adoption of these principles is not sufficient in themselves to enable the metadata collected by the OECD to be used for efficient comparisons of current national practice for any specific MEI statistical indicator. In the absence of any universally accepted definitions of terminology, etc, methodological text provided by national agencies frequently uses either different terminology for the same phenomenon or the same terminology for different phenomenon. Considerable resources are often expended by international agencies in verifying text, etc, to ensure that methodological descriptions are consistent as possible between countries.

21. A mechanism for achieving agreement on terminology within the OECD initially, and perhaps with other international organisations and national agencies in the longer term, is the adoption of terminological definitions based on those included in existing international statistical recommendations and guidelines (discussed above in Section 4) through the development of glossaries such as the OECD Glossary of Statistical Terms discussed below in Section VII.

22. Areas where work on metadata content for MEI is currently being undertaken within the overall OECD metadata strategy comprise:

- reaching agreement on the broad metadata headings under which statistical metadata is stored in databases and which can be used by different Directorates for all statistical indicators collected and disseminated by the OECD. Possible options for the Organisation include adoption of the four broad headings currently used for MEI outlined above (i.e. definition, coverage, collection and calculation) or the major headings used by the IMF on the DSBB<sup>14</sup> (i.e. dissemination formats, the data (coverage, periodicity and timeliness), access by the public, integrity, quality). Another heading relevant for long time series on OECD databases also being considered for inclusion is metadata relating to series breaks.

During an internal OECD Statisticians Meeting held in November 2001 strong internal demand was also expressed for the inclusion of “qualitative” metadata on OECD databases to provide users with information on data quality issues, etc., (e.g. the appropriate uses of the different measures of employment) as distinct to the more “mechanical” summary metadata described in the preceding paragraph;

- which statistical series are to be described first. The initial preparation of metadata for inclusion on OECD databases is not without cost and priorities need to be identified. A phased approach for the development of metadata content has been adopted<sup>15</sup>. Metadata for key OECD reference series is being prepared first, followed by metadata for series appearing in flagship publications (such as MEI).

## **VI. TARGET INDICATORS FOR MAIN ECONOMIC INDICATORS**

23. As mentioned above, MEI includes a wide range of specific short-term indicators within a broad range of statistical subjects. The following table contains a list of “target” indicators sought by the OECD for inclusion in the monthly publication. No one Member country compiles all the indicators in the list to meet the requirements of its main national users. The main objective of the list is to provide focus for OECD requests to Member country agencies and other international organisations for MEI data and methodological information. Such focus is necessary to ensure the collection of a range of indicators “common” to as many Member countries as possible. Obviously, such a list will be revised at regular intervals as priorities change and new topics of interest to users emerge.

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<sup>14</sup> Both Eurostat and the European Central Bank have adopted these headings to prepare metadata for euro area and harmonised statistics. This metadata can be accessed via the DSBB.

<sup>15</sup> This is the approach currently being used by the US Bureau of Census and emphasises the need to engage individual branch statistical subject matter areas as a precondition for the initial development and on-going maintenance of metadata content on databases.

24. At this stage, it is useful to distinguish between the “comparable” series published in the first part of MEI, *Indicators by subject*, and the “common” series published in the second part, *Indicators for OECD Member countries*. The series data in Part One facilitate broad comparisons across countries whereas the series in Part Two are much more reliant on methodological information for reasonable comparisons<sup>16</sup>. This is because the series in Part Two can differ significantly in scope, coverage, definition, etc., so that comparisons are meaningless unless the methodological information is known and understood.

25. The target indicators listed in the table below are what the OECD would like to collect for inclusion in MEI, in either Part One or Part Two. Another list of what the OECD actually collects and disseminates in both paper and electronic media is provided in the MEI Inventory available on the internet (<http://www.oecd.org/std/meiinv.pdf>).

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<sup>16</sup> However, it is fair to say that many of the main “headline” short-term indicators (for example, those published in the first part of MEI, *Indicators by subject*) are sufficiently comparable to enable broad comparisons of changes in level between countries.



**List of target short-term economic indicators for Main Economic Indicators (13 August 2001)**

<b>National Accounts</b>	46. - Non-residential	<b>Producer prices</b>
1. GDP	47. - Private	93. total
2. GDP (volume)	48. - Public	94. - Intermediate goods
3. Implicit price level		95. - Raw materials
	<b>Business tendency surveys</b>	96. - Refined petroleum products
<b>Production</b>	49. Industrial business climate	97. Investment goods
4. Total industry	50. Industrial production: future tendency	98. Consumer goods
5. Manufacturing	51. Industry orders infl or dem: future tend.	99. Food and beverages
6. - Consumer goods: total	52. Industrial order books: level	100. Chemicals
7. - Consumer non-durable goods	53. Industrial finished goods stocks: level	101. Metal products
8. - Consumer durable goods	54. Industrial expected exports	
9. - Investment goods	55. Construction orders/dem: future tendency	<b>Consumer prices</b>
10. - Intermediate goods	56. Const employment: future tendency	102. Total
11. Construction	57. Retail/wholesale: present bus. situation	103. All items less food
12. Services	58. Retail/wholesale: bus. sit: future tendency	104. Food
	59. Retail/wholesale stocks: level	105. All items less food and energy
<b>Commodity output</b>	60. Other services: present business situation	106. Energy
13. Construction materials	61. Other services, employment: future tend.	107. All goods
14. Crude steel	62. Other services business sit: future tend.	108. - Durable goods
15. Crude petroleum		109. All services
16. Natural gas	<b>Consumer tendency surveys</b>	110. - All services less rent
17. Commercial vehicles	63. Consumers confidence indicator	111. - Rent
18. Passenger cars	64. Consumers expected inflation	
	65. Consumers expected economic situation	<b>Domestic finance</b>
<b>Industrial turnover (volume)</b>		112. M1 (or equivalent)
19. Total	<b>Wholesale and retail sales</b>	113. M3 (or equivalent)
20. - Domestic	66. Total wholesale sales (value)	114. Credit (or equivalent)
21. - Foreign	67. Total wholesales sales (volume)	115. New capital issues
22. Consumer goods: total	68. Total retail sales (value)	116. Loans
23. - Consumer non-durable goods	69. Total retail sales (volume)	117. Public deficit (or equivalent)
24. - Consumer durable goods	70. New passenger car registrations	118. Public debt
25. Investment goods		
26. Intermediate goods	<b>External trade</b>	<b>Balance of payments</b>
	71. Imports c.i.f. or f.o.b. (value)	119. Current account balance
<b>New orders (volume)</b>	72. Exports c.i.f. or f.o.b. (value)	120. - Trade balance
27. Total	73. Net trade	121. - Net services
28. - Domestic	74. Imports c.i.f. or f.o.b. (volume)	122. - Net income
29. - Foreign	75. Exports c.i.f. or f.o.b. (volume)	123. - Net transfers
30. Consumer goods: total	76. Import prices	124. Financial account balance
31. - Consumer non-durable goods	77. Export prices	125. Change in official reserves
32. - Consumer durable goods		126. Net errors and omissions
33. Investment goods	<b>Labour</b>	
34. Intermediate goods	78. Employment total	<b>Interest rates – share prices</b>
	79. - Employment - agriculture	127. Short-term rate
<b>Stocks</b>	80. - Employment – industry	128. Prime interest rate
35. Total	81. - Employment – Services	129. Government bonds yield
36. - Finished goods	82. Total employees	130. Share price index
37. - Work in progress	83. - Part-time employees	
38. - Intermediate goods	84. - Temporary employees	<b>Foreign finance</b>
	85. Unemp total (absol value)	131. US\$ exchange rate: spot
39. Rate of capacity utilisation	86. - short-term (absol value)	132. US\$ exchange rate: forward
	87. Unemployment – total rate	133. Official reserves excluding gold
40. OECD leading indicator	88. - short-term rate	134. Net foreign position
	89. Worked hours	
<b>Construction</b>	90. Overtime (rate)	
41. Total (value)		
42. - Residential (value)	<b>Wages</b>	
43. - Non-residential (value)	91. Hourly earnings	
44. Work put in place: total		
45. - Residential	92. Unit labour cost	

## VII. TARGET DEFINITIONS FOR MEI TARGET INDICATORS

26. The OECD Glossary of Statistical Terms<sup>17</sup> contains “target definitions” for many of the MEI short-term economic indicators collected by the Organisation. As indicated in the previous section, the reality is however that many national practices/methodologies/concepts used in the actual compilation of data by OECD Member countries may (and frequently do) depart from these standards for a number of reasons. Although the reasons for such departures may be quite legitimate, the fact that national definitions sometimes differ from international standards can lead to misunderstandings in international comparisons unless methodological explanation of current individual national practice are quite specific.

27. The definitions used in the compilation of the OECD Glossary were drawn from the international statistical standards located on the UNSD database referred to in Section 4 above. Extensive use was also made of glossaries published by international agencies<sup>18</sup>. In most instances, the definitions in the OECD Glossary were extracted word for word from the relevant international statistical standards. The glossary also provides precise reference information for each definition. The practice of direct quotation from the standard has been adopted to enable the user to refer to the actual guideline document when further information and/or context are required.

28. Again, it should be emphasised that the target definitions included in the OECD website are just that, target definitions. However, they provide a useful starting point for comparisons between countries. The OECD Glossary is also a useful tool for facilitating the adoption of common definitions and terminology across the OECD and in the longer term, between different international organisations and national agencies.

## VIII. METADATA IT INFRASTRUCTURE ISSUES

29. The main IT infrastructure issues that were considered in the design of the MEI metadata system included:

- the linkage of metadata to the actual statistics they describe;
- the provision of facilities that enable metadata to be accessed across the OECD, and free access by national agencies and by other international organisations;
- the ability to include URL links on OECD databases to more detailed metadata located on the websites of national agencies and other international organisations.

## IX. AREAS OF FUTURE COLLABORATION BETWEEN OECD AND OTHER AGENCIES

30. There are a number of areas where the further collaboration between the OECD and other international organisations and national agencies in the field of metadata is required for all areas of statistics, not just those published in MEI. These areas comprise:

- the adoption of common terminology by different organisations through the development of common glossaries of statistical terms, in particular for data element definitions, based on existing international statistical guidelines and recommendations<sup>19</sup>;

<sup>17</sup> Available at <http://www.oecd.org/oecd/pages/home/displaygeneral/0,3380,EN-statistics-0-nodirectorate-no-no-no-0,FF.html>

<sup>18</sup> Examples of these include the OECD publication, *System of National Accounts, 1993: Glossary* (available on the OECD website at <http://www1.oecd.org/std/nahome.htm>) and the *Monthly Bulletin of Statistics* (MBS) data dictionary posted by UNSD on their website (<http://esa.un.org/unsd/cdbmeta/default.asp>). Finally, Eurostat also has a comprehensive glossary on their website (refer to CODED at [http://forum.europa.eu.int/Public/irc/dsis/bmethods/info/data/new/main\\_en.htm](http://forum.europa.eu.int/Public/irc/dsis/bmethods/info/data/new/main_en.htm)).

<sup>19</sup> Refer to paper “Developing a Common Understanding of Standard Metadata Components: A Statistical Glossary” prepared by Denis Ward OECD) and Marco Pellegrino (Eurostat), 2001, presented at this years METIS.

- development of standards for the presentation of metadata on websites. Issues that need to be considered here include navigation and search facilities, regular maintenance, etc<sup>20</sup>;
- IT infrastructures and facilities for data and metadata exchange;
- issues related to the development of standards to facilitate linkage of metadata located on the websites of international organisations and national agencies. There is a need to develop guidelines on best practice to overcome the problem of the instability of many URLs due to frequent changes made to the websites of national and international organisations.

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<sup>20</sup> The paper prepared by Statistics Sweden for the 2000 METIS meeting provides a useful starting point for the preparation of web presentation standards. Refer "Best Practices in Designing Websites for Dissemination of Statistics" at <http://www.unece.org/stats/documents/2000/11/metis/21.e.pdf>