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Topic (iii): Needs and responsibilities of international organisations for metadata

**THE HARMONISATION OF STATISTICAL METADATA FOR THE EUROPEAN UNION:
EUROSTAT'S NEEDS AND RESPONSIBILITIES**

Submitted by Eurostat¹

Invited paper

I. INTRODUCTION

1. This paper outlines some recent developments in the European Statistical System, where Eurostat plays a pivotal role in enforcing EU rules and coordinating a permanent network of committees and subject-matter working groups with Member States. With the aim of helping the users to understand the evolution of the Euro-zone (and the European Union as a whole) Eurostat and its European partners recently launched new projects for the analysis of the business cycle. These developments called for further efforts to provide, in parallel to statistical series, a corresponding set of complementary metadata in the form of administrative information and methodological notes.

2. The paper will also review a series of subjects for which stronger coordination between international and national statistical organisations would be helpful for improving the collection, harmonisation and dissemination of high-quality metadata to users.

3. METIS Work Sessions have always been an excellent forum for promoting a balanced consideration of all different aspects of the metadata issue and for identifying areas for further work and cooperation. I hope that the papers included in this session on "needs and responsibilities of international organisations for metadata" will prepare the way for positive agreements on this matter.

II. METADATA AND METADEBATES

4. After years of theoretical and sometimes abstract discussions on metadata, I think it is time to develop a more pragmatic approach, avoiding any artificial separation between Information Technologies (IT) and Statistics, or between data and metadata. During last METIS Session, as well as during a Workshop on metadata held in Eurostat this year (February 2000) it was pointed out several times that a gap seems to exist between experts of Information Technologies and users/producers of statistical data, with regard to the perception of metadata. Perhaps, after years of discussions, projects and sophisticated models, we run the risk of losing a part of the original meaning of the concept.

5. The original contributions on metainformation started from a joint consideration of statistical data and metadata. "Metadata provides information on data - and about processes of producing and using data. (...) Statistical data are the primary object of the descriptions provided by statistical metadata. Thus in order to understand the meaning and contents of statistical metadata, we must have some

¹ Prepared by Marco Pellegrino.

understanding of what statistical data are, and what it is about them that may have to be described"². This means, broadly speaking, that by starting from statistical data (needed by users) we can derive metadata, i.e. the information needed for finding, interpreting, evaluating and re-processing data.

6. What happened in the last few years? Metadata have often been considered as a building block for developing theoretical models based on all sorts of computer jargon: in other words, it has often been considered as an IT-game. At the same time, statisticians and subject-matter experts (who were collecting, harmonising and transferring metadata) had very often poor communication with IT-experts and sometimes they were not even aware of the concept of metadata. In the absence of statisticians, most of the attention was devoted to administrative metadata, while content-oriented metadata were left behind.

7. Sometimes, however, users seem to take their own revenge over statisticians and metadata-experts. After years of never-ending theoretical debates, the sudden need of more short-term data (to avoid financial crises, or in general for decision-making) produced an unexpected and rapid step forward towards the adoption of an international metadata standard for dissemination (the Special Data Dissemination Standard). Other needs, such as the need of a set of statistical indicators for monitoring the Euro-zone, are pushing forward in the same direction, demanding further harmonisation of European and national metadata repositories.

8. Now the dichotomy between data and metadata, between IT and statistics, must be overcome as it is fundamentally misleading and unacceptable in theory and in practice: standards for metadata cannot be developed without a closer cooperation between IT experts, statisticians and users, by reaching a common language and common interests.

9. Having said that, this paper will only make indirect references to IT problems (for obvious reasons connected, among other things, with my background in Economics and Statistics). It is evident, anyway, that the metadata problem can be dealt with only through a balanced and multi-disciplinary approach.

III. DO WE NEED MORE THEORETICAL MODELS?

10. The question of a clear definition of metadata has been discussed at length over many years. Here we assume that the term "metadata" defines the information used to describe the data. Therefore, statistical metadata can be seen as the information that makes figures understandable to the user as a statistical entity, e.g. units, time period, coverage, definitions, classifications, methodological notes, etc.

11. Basically, users need three things: a) assistance in the search for data, to find out which data are actually available and how they can be retrieved (data must be accessible); b) help to understand the meaning and limitations of the data: they need elements for a proper interpretation and a basic quality assessment of the data (data must be documented); c) help to assess the reliability and the quality of the data in detail: they need to know methodological aspects concerning the data, along the stages of the statistical life cycle (data must be usable).

12. The degree of support required depends on several elements: the user's profile (end-user, subject-matter expert, producer), informatics expertise and even general knowledge. The growth of statistical dissemination via the world-wide-web, for instance, leads to a higher demand for metadata, as the audience on Internet is not necessarily aware of the statistical context. At the same time, a higher degree of information is required to assess data quality and to help international comparability.

² UN Statistical Commission and Economic Commission for Europe, "Guidelines for the Modelling of Statistical Data and Metadata", United Nations, 1995, pages 1-2

13. In recent years, several standards and guidelines have been developed and to various extents implemented all over the world: sector-based classification systems (national accounts, industrial statistics, labour statistics,...); general guidelines for metadata on the Internet, recently published ³ after discussion in two METIS sessions and within the Conference of European Statisticians; Special and General Data Dissemination Standards from the IMF; OECD metadata standard for Main Economic Indicators; Dublin Core, etc. These standards and guidelines, normally developed around metadata for particular types of statistics, concentrate very often on metadata for data relating to individual countries, rather than multi-national aggregates. Eurostat has responsibility for a wide range of statistics, and therefore needs a generic metadata model that takes into account how data are aggregated and that is compatible, where possible, with more specific models.

14. Everybody agrees that the needs of each statistical office depend on how the office defines its mission and its main users. Even so, some common points can be found both in the theoretical models and in our practical approaches. In a paper co-written with Steven Vale ⁴ for a workshop on metadata held in Eurostat, we tried to define different layers of metadata relevant for our purposes.

15. The first layer of metadata is of course the basic information that turns numbers into statistical data (headings, units of measurement, time period, coverage, footnotes, source,...). This type of information can also be used to facilitate searching for data. This level may provide enough information for some users, but others will want to go to the next level.

16. The second layer of metadata may be seen as containing explanatory notes on concepts, definitions and classifications.

17. The third layer of metadata is better described as methodology, and gives detailed information on how the data is collected (survey or administrative source) and processed (aggregated, validated etc.). This level, for Eurostat purposes, normally includes metadata for both national and European aggregates.

18. A fourth layer of metadata includes the legal basis for the data collection (e.g. national or international legal texts authorising or requiring the collection of data, or placing limits on the use and dissemination of the data), descriptions of basic registers and generalised information concerning survey or analytical methods, at national and European level.

19. In terms of the collection and processing of statistical data, it can be envisaged that first-layer metadata should be closely linked to data as it is transferred from one process to another. Second-layer metadata is probably more suitable for transmission separately to data, but the volumes may be such that it is still useful to have standard formats. Third and fourth-layer metadata are less likely to be transmitted on a regular basis, and they are therefore less dependent on detailed standard formats. Even if the information is less likely to be requested, it is always useful to mention the address for further inquiries.

20. This model of metadata layers probably makes sense from the point of view of our users. Generalists just wanting basic information often need go no further than the highest level, but specialists can progress through the levels to get the information they need. This should be made possible by a series of hypertext links leading to a more detailed level. The volume of information to be stored depends primarily on the geographical detail (World, OECD, EU area, EU + national levels) and on what we include in each item: hence, at the end, it depends on each agency's mission. Needless to say, it is necessary to have efficient and user-friendly metadata management and dissemination systems, due to the volume of metadata involved. It therefore makes sense to discuss progress with other organisations, to share ideas and technology, and to try to achieve economies of scale.

³ UN/ECE Conference of European Statisticians, "Guidelines for Statistical Metadata on the Internet", Statistical Standards and Studies No. 52, Geneva, 2000.

⁴ S. Vale, M. Pellegrino, "The Metadata Problem in the European Context", Eurostat Workshop on Statistical Metadata, Luxembourg, 14-15 February 2000.

IV. NEW CHALLENGES: THE NEED OF EURO STATISTICS

21. Eurostat, at present, is facing a situation of growing expectations, as the political and economic role of official statistics is rising. Following the launch of the single currency, the availability of timely and harmonised data for the Euro-zone has rapidly become a top priority. Therefore, information about those data, including definitions, methods and all administrative metadata, must be organised systematically and consistently before being released.

22. Statisticians are normally under pressure with regard to a series of attributes of official statistics, that we normally group together under the label of "quality"⁵. Quality attributes (relevance, accuracy, timeliness, accessibility and clarity, comparability, coherence and completeness) normally create unpleasant trade-offs that statistical institutes must deal with, within the limits of existing laws and available resources, and in connection with historical and political phases.

23. At the beginning of the European integration, the running of EU policies depended above all on detailed information compiled from nationally collected data: in that situation comparability (over time, countries or between domains) was considered as the Community's first priority, above timeliness. Now, with the rising importance of statistics for decision-making, especially in the financial sector, accuracy and timeliness are gaining ground. The capacity of providing comparable and accurate data is not under discussion, as Eurostat maintains a network of committees and working groups with National Statistical Institutes that is likely to produce an ever-growing convergence of statistical methods. A higher attention, however, in accordance with the European Central Bank, will have to be devoted to timeliness, essential for a proper conduct of the monetary union.

24. Metadata policies must take this change of priorities under adequate consideration. Fast information and estimates (where, in some cases, the EU and Euro aggregate is not simply the sum of national figures) require proper metadata coverage to avoid the delivery of misleading or unclear messages to the users.

25. Who can deal properly with this higher demand of metadata? Eurostat, being at the core of the European Statistical System, has a growing influence over the production of statistical information in all the EU Member States (and, in perspective, over candidate countries, too). At the same time, national producers see it as a sort of influential user, whose requirements must be taken into account. For this twofold nature, Eurostat is particularly well placed to help users to understand limits and nature of official statistics (via metadata) while it transmits to national producers the needs expressed by the users.

26. To satisfy users' demand, Eurostat must be able to collect data from Member States and maintain/disseminate harmonised statistics. This includes the need to handle and exchange metadata relating to internationally agreed standards and to national methodologies used in Member States. Of course we are not alone to walk along this path. We have permanent and fruitful relationships with our international partners, such as the European Central Bank and the OECD. However, we have a specific and pivot role within the European Union in force of a unique system of regulations and directives that make this inter-connected system work properly.

27. The role played by Eurostat in the harmonisation of European statistics has grown significantly over the last years. The Council Regulation No 322/97 of 17 February 1997 on Community Statistics establishes a legislative framework for the production of Community statistics by "national authorities at national level and the Community authority at Community level". In this context (article 1) it requires that Community statistics shall be produced on the basis of "uniform standards" and, in specific cases, of

⁵ EUROSTAT, "Definition of the Quality in Statistics", "Standard Quality Report", April 2000. Documents discussed in a Working Group with representatives from National Institutes of EU, EFTA and candidate countries and other interested parties, in 1998-1999

"harmonised methods". Another crucial Council Regulation concerning short-term statistics (No 1165/98) was issued on 19 May 1998. This is resulting in a structured definition of variables, periodicity, quality criteria and implementation phases. But this also implicitly reinforced Eurostat's responsibility with regard to metadata harmonisation and quality monitoring within the European Statistical System.

28. As many experts remind us, metadata collection (and metadata harmonisation) is a very expensive task in terms of resources: this means that all our partners will benefit from the harmonisation of metadata that Eurostat is conducting in the field of Euro-zone statistics.

V. STATISTICAL INDICATORS FOR THE EURO-ZONE BUSINESS-CYCLE ANALYSIS

29. As we said before, the growing demand of timely and high-quality statistical data on the Euro-zone proved to be one of the most powerful factors for stimulating the harmonisation of the relevant metainformation. In September 1998, Eurostat launched a new set of short-term indicators (called Euro-indicators). Access to these indicators is free on the Internet and concise methodological notes are supplied to assist in their interpretation. The Euro-indicators are expressed in terms of growth rates and show the most recent available information at quarterly or monthly periodicity.

30. Due to the success of the Euro-Indicators, a more comprehensive project has been started: Euro-SICS (Statistical Indicators Common Site). Euro-SICS consists of short-term statistical indicators for economic analysis and nowcasting of the Economic and Monetary Union and European Union, as well as Member States. This is a product of the European Statistical System agreed on in 1999 and coordinated by Eurostat. Euro-SICS indicators are expressed in terms of value and, where possible, long-term series up to 15 years are supplied. The domains covered are: National Accounts, Money and Finance, External Trade, Balance of Payments, Prices, Industry, Retail Sales, Energy, Employment in Industry and Construction, Unemployment and Labour Cost.

31. The purpose is to supply institutional analysts with a set of long-term series, harmonised and national, available at high frequency level (quarterly and monthly) to obtain a complete picture of the economic behaviour of the above mentioned subjects. This information will help build a system describing past, present and near future. The simultaneous presence of different measures of the same phenomenon recorded at different frequencies (see Annex 1), as well as some measure of expectations, will allow the creation of short-term forecasts models.

32. This new project required further efforts to provide a corresponding set of metadata. For this specific purpose, in 1999, Eurostat's Committee of Directors endorsed the decision to subscribe to the Special Data Dissemination Standard (SDDS) developed by the IMF, in order to create a uniform and consistent layout of metadata for Euro-zone indicators.

33. In spite of any possible shortcoming, for instance concerning quality and methodological descriptions (where Eurostat is trying to go beyond minimum requirements) the use of the SDDS template presents several advantages: a) the adoption of a reference template simplifies the production and maintenance of metadata files within the European Statistical System; b) if Eurostat uses the same standard that National Institutes have adopted to deliver metadata to the IMF, metadata for national and European series can be better integrated; c) users are able to read Eurostat's metadata in a harmonised and well-known format.

34. In the first phase, Eurostat prepared methodological information for all European aggregates (Euro-zone and European Union as a whole) trying to provide a summary overview of methodological issues that is at the same time comprehensive and non-redundant. This work has not been easy, but now Euro-SICS hosts metadata in SDDS format (Basic Information and, above all, Summary Methodologies, which are our first priority) for all the existing domains. At the end of the second phase, Eurostat will also be able to disseminate metadata for national series, for which most of the Member States have already

subscribed to the SDDS. This work entails, of course, a higher coordination within the European Statistical System.

35. National data series in Euro-SICS can be divided, with regard to metadata, into two major categories: a) series for which metadata have already been produced by Member States and sent to IMF (in this case, any available information will be used and completed by Eurostat, to be finally checked and validated by Member States); b) series (harmonised, non-harmonised or country-specific) where no metadata has been written in SDDS format. Concerning country-specific indicators, Member States themselves will be required to supply metadata following the SDDS scheme. Of course, we do not intend to duplicate the work that Member States have already done and posted on the IMF's Dissemination Standards Bulletin Board (DSBB). Actually, our first objective is to improve the SDDS coverage of these domains, by helping all Member States to produce harmonised methodological descriptions for the EU area.

36. As a matter of fact, while performing this exercise, we noticed that: a) not all present and future EU members subscribed to the SDDS; b) on the IMF DSBB, most of the national pages of Summary Methodology are still missing (see Annex 2): this means, in general, that the lack of transparency about metadata does not affect international agencies only; c) considering all available methodological notes, the variety of definitions sometimes risks confusing a non-expert reader.

37. At the same time, this work has brought forward further important issues: how to standardise the presentation of all methodological descriptions and how to coordinate the updating of all concerned SDDS files, when different files are disseminated for the same domain by a variety of channels (national websites, Eurostat, OECD, IMF,...)?

38. For the first problem, we can stick to some basic criteria: a) metadata for Internet should always be written for general consumption, in easily readable pages; b) hyperlinks should be used for providing expert users with more detailed information, avoiding at the same time any counterproductive information overload; c) the wording of each methodology should be carefully harmonised taking into account official descriptions and handbooks.

39. As for the second issue (coordination) the optimal solution seems to rely on a good interchange of metadata between the main concerned parties. In the end, this will also reduce the burden on national institutes for the supply of metadata to international organisations. I will come back to this point in the next paragraph.

VI. EUROSTAT'S NEEDS AND RESPONSIBILITIES WITH REGARD TO METADATA

40. To elaborate a general strategy on metadata, Eurostat held a two-day open workshop on metadata issues in February 2000, with the participation of representatives from 23 European statistical institutes and a series of international partners such as ECB, ILO, OECD and UN.

41. During that workshop, three main priorities for action were outlined: a) a greater collaboration within international statistical agencies involved in the collection, maintenance and dissemination of data and metadata, to avoid the risk of duplications and inconsistencies and for the harmonisation of metadata content requirements; b) the set-up of networks of experts for developing and implementing specific tools for the management of metadata (the workshop agreed that the cubes model is a good foundation for future work on metadata tools and that a closer involvement of statisticians and informatics experts is now needed for developing further models and tools based on the agreed model); c) the promotion of use of a series of agreed metadata standards and tools, such as GESMES and CLASET, for the exchange of metadata classes.

42. These are our general objectives, for which a new Working Group on metadata within Eurostat is going to play a coordination role. As far as the role and responsibilities of international organisations are

concerned, progress depends very much on how we manage to deal with a series of key problems. I will try to list the most relevant ones.

43. Talking the same statistical language. Several terminological conventions are apparently used for describing the same set of data. This lack of uniformity sometimes leads to serious problems and delays when metadata are exchanged or they have to be harmonised at a higher level.

44. One of our current priorities is the harmonisation of concepts and definitions within the European Statistical System on the basis of internationally agreed standards. To do so, Eurostat recently launched *Business methods*⁶, a tool for the co-ordination and the dissemination of business statistics methodology in Europe. The aim of Business Methods is to bring together all existing and future methodology, norms and useful information relating to European business statistics within a coherent and user friendly framework in three working languages (English, French and German).

45. Business Methods is actually a set of different systems interrelated by using hypertext links within an Internet environment, so that each module can evolve independently. This includes, among other things, CODED (a database of concepts and definitions), RAMON (Eurostat's classifications server), Eurostat's Manual of Business statistics, Legal texts and information on National Methodologies and other methodological documents. CODED currently holds more than 2000 concepts and definitions concerning business statistics, economic statistics, foreign trade, transport and social statistics. It also includes a database of abbreviations and acronyms used within the European Statistical System.

46. It goes without saying that these developments must be carefully coordinated with international partner organisations and national institutes, in order to reach an ever-growing consistency of definitions and, last but not least, relevant economies of scale.

47. Reaching a general agreement over a common presentation of metadata. Like many others, I think that the adoption of common dissemination templates brings several advantages to international and national reporting organisations. This does not mean that we have to adopt a common model for all the phases of the statistical life cycle and for all organisations, regardless of any difference of mission and structure. Models developed by the OECD for Main Economic Indicators, or the U.S. Bureau of Census, for instance, are of prime interest to Eurostat, and we are also developing specific models on metadata along the different phases from production to reference to dissemination. Probably, a general modelling is not yet feasible. In my view, starting from users' needs (i.e. from the information to be disseminated) we can more easily climb up the chain and agree on a broad list of metadata items that we should collect from each national source.

48. In this context, I can see no particular problem in recommending that the output of each specific production model is made compatible with a list of pre-defined headings such as those implemented in the Special Data Dissemination Standard. At the same time, I am sure that international organisations - such as those participating to the METIS - are also in a good position to cooperate with the IMF for further streamlining SDDS requirements with regard to quality assessment and methodological descriptions.

49. Coordinating the interchange of metadata between international organisations. International organisations play a strategic role in the harmonisation of metadata repositories: more efforts should now be deployed towards a broader coordination of the metadata process. The metadata for Euro-zone indicators is a good example: every Member State is supposed to send its own meta-information to several organisations (Eurostat, OECD, IMF,...) and very often for the same dataset. The following exchange of metadata between international organisations is then subject to serious problems of consistency.

⁶ <http://forum.europa.eu.int/Public/irc/dsis/bmethods/home>

50. In 1999, Eurostat and the Statistics Department of the IMF agreed that metadata for the Euro-indicators would continue to be developed and maintained by Eurostat and that this metadata could be posted on a Eurostat Internet site to be hyperlinked to the IMF's Dissemination Standards Bulletin Board. Now, metadata for Euro-zone aggregates are finally available on a platform of the European Statistical System (Euro-SICS) where basic information and summary methodological descriptions are posted according to the SDDS scheme.

51. At present, we are working on each country's metainformation. Here too, Eurostat and the IMF have already agreed that national metadata for the harmonised indicators would also be drafted by Eurostat, in collaboration with national authorities and with IMF, to be presented on the DSBB if countries agree. Here is a practical opportunity for coordinating the metadata process and also for minimising each country's reporting burden, according to the spirit of subsidiarity.

52. Open access to metadata. I agree with Denis Ward of OECD that coordination and interchange of the metainformation entails the principle of open access to metadata that international agencies collect, and that a free access to metadata repositories (both national and international) is highly recommended for assisting the harmonisation process. Metadata, at least those that I previously included in the first two layers (basic information, concepts, definitions and classifications) should be free and readily available on the Internet, as they are essential for searching and for assessing the need of a particular set of data. Hiding this kind of information would be just like keeping a label only for those who have already bought the product. More detailed metadata concerning data collection and processing (analytical methods, source and survey descriptions,...) should be made freely available to privileged users at least, perhaps using other transmission tools, depending on size and frequency of exchange.

53. What is never stressed enough is that the information flow between international and national organisations is bi-directional, and so are the underlying needs: if international organisations cannot have easy and proper access to national metadata (basic definitions, methodological notes, release calendars,...) in a common working language, they cannot accomplish their harmonisation tasks, to the great disappointment of Member States. Although the agreement on this issue looks quite general on the occasion of international seminars, it would be interesting if we discussed a bit more in detail the constraints that we mutually experience when we try to put the agreement into practice.

54. Improved systems for data and metadata management. Progress in the area of metadata management for dissemination depends very much on a series of expected developments such as the use of agreed definitions and a greater harmonisation of metadata content; but they also depend on the improvement of dissemination tools: such developments should be highly considered in terms of resources and priority. The provision of guidelines and summaries of best practices, as we did for metadata on Internet on METIS 1997 and 1999 (and as we are supposed to do for website design and formats for downloading data, this time) is a valuable tool for coordinating the evolution and for supporting the integration of new countries into the system.

55. Learning to live with a non-perfect harmonisation. Data and metadata will probably never be perfectly harmonised. This means that we must learn to live with non-harmonised statistics and with non-harmonised metadata repositories. What we should do is produce guidelines, adopt international standards as much as possible and take advantage of any recognised forum for exchanging opinions and best practices.

56. For these purposes, a so-called "network of excellence" has recently been formed under the framework of the IST Programme (Information Society Technologies) of the European Commission, with the participation of experts, users of official statistics, researchers and developers. A new project (METANET) will aim at developing proposals and recommendations for the harmonisation of metadata structures, definitions and conceptual models, on the basis of the work done within the European Statistical System during the last few years. This Network will take into account the relevant guidelines, standards and tools elaborated, inter alia, within the UN/ECE work sessions, the Object Management

Group (OMG), National Institutes, as well as under previous projects funded by the European Commission.

57. METANET is still in its start-up phase: it is too early to say which results it is going to get. For the time being, it is another challenge, and also a good chance to show that a closer and fruitful cooperation between experts, users and producers of official statistics is possible now, by reaching a common language. Without asking for the moon and, above all, without losing contact with reality, that is what users of statistics really need.

Annex 1

Distribution of the series available in Euro-SICS by domain and frequency (as of 28 August 2000)

Domain	Yearly	Quarterly	Monthly	Total	
	N	N	N	N	%
National Accounts	-	2660	-	2660	31
Monetary and Financial Indicators	-	-	127	127	1.5
External Trade	-	-	322	322	3.8
Balance of Payments	-	474	-	474	5.5
Prices	-	-	880	880	10.3
Industry	-	-	1851	1851	21.6
Retail sales Index	46	127	355	528	6.2
Energy	-	-	85	85	1
Employment in Industry	-	843	496	1339	15.6
Employment in Construction	-	30	16	46	0.5
Unemployment	-	-	152	152	1.8
Labour Cost	-	119	-	119	1.4
Total	46	4253	4284	8583	100

Source: Eurostat, Unit A6 (Statistical indicators for Euro-zone business cycle analysis)

Annex 2: Basic Information and Summary Methodology posted on the IMF's DSBB - by EU country (as of 21 August 2000)

Sector	AT	BE	DK	FI	FR	DE	IE	IT	NL	PT	ES	SE	UK
Real sector (specifications)													
National accounts	X	X+SM	X	X	X	X	X	X	X	X	X+SM	X	X+SM
Production indices	X	X+SM	X	X	X	X	X	X+SM	X+SM	X+SM	X	X	X+SM
Forward-looking indicators		X+SM	X	X	X					X		X	
Forward-looking indicators - Business survey										X			
Labor market													
Employment	X	X	X	X+SM	X	X	X	X	X+SM	X	X	X+SM	X+SM
Labor force survey													X
Large enterprise and actual earnings survey								X					
Unemployment	X	X+SM	X	X+SM	X	X	X	X	X+SM	X	X	X+SM	X
Labor force survey													X
Wages or earnings	X	X	X	X+SM	X	X+SM	X	X	X	X	X	X	X
Annual earnings survey													X
Price indices													
Consumer prices	X	X+SM	X	X+SM	X	X	X+SM	X	X	X	X	X	X+SM
Producer prices	X+SM	X+SM	X	X	X	X+SM	X	X+SM	X	X+SM	X	X+SM	X+SM
Fiscal sector (specifications)													
General government or public sector operations	X	X	X	X	X	X	X	X	X	X	X	X	X
Revenue, expenditure and balance		X+SM											
Domestic and foreign financing		X											
Central government operations	X	X+SM	X+SM	X	X	X	X	X	X	X	X	X	X
Revenues and expenditures												X+SM	
Borrowing requirement and funding												X+SM	
Central government debt	X	X+SM	X	X+SM	X	X	X	X	X	X	X	X+SM	X
Sterling debt													X
Forreign currency debt													X
Financial sector (specifications)													
Analytical accounts of the banking sector	X+SM	X	X+SM	X+SM	X	X	X+SM						
Analytical accounts of the central bank	X	X	X+SM	X+SM	X	X	X+SM						
Interest rates	X	X+SM	X+SM	X+SM	X	X	X	X+SM		X	X+SM	X	X+SM
Central Bank policy variables									X				
Government securities (bonds)									X				
Government debt return index										X			
Stock market: Share price index	X+SM	X	X+SM	X+SM	X	X+SM	X	X	X+SM	X	X+SM	X+SM	X+SM
External sector (specifications)													
Balance of payments	X	X+SM	X	X+SM	X	X+SM	X	X	X	X	X	X+SM	X+SM
International reserves	X+SM	X	X+SM	X	X	X+SM	X	X+SM	X+SM	X+SM	X+SM	X+SM	X+SM
Merchandise trade	X	X+SM	X	X	X	X	X	X	X+SM	X+SM	X	X	X+SM
International investment position	X	X+SM	X	X+SM	X	X+SM	X	X	X	X	X	X	X+SM
Exchange rates	X	X	X+SM	X+SM	X	X	X	X	X	X	X	X	X
Population (specifications)	X	X	X	X	X	X	X	X	X	X	X	X	X

X = Basic Information on Coverage, Periodicity, Timeliness, Access by the Public, Integrity and Quality; SM = Summary Methodology