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Items for discussion and decision: short-term economic indicators

#### **Short-term economic indicators**

#### Report of the Secretary-General

#### Summary

The present report is submitted to the Statistical Commission in compliance with its request at its forty-first session (see E/2010/24, chap. I.A). The report describes the joint United Nations Statistics Division and Statistical Office of the European Communities initiative undertaken in collaboration with Statistics Canada, Statistics Netherlands and the Russian Federal State Statistics Service to formulate an international programme of work on short-term economic statistics as part of a coordinated statistical response to the economic and financial crisis. This report has been prepared for the Commission's consideration and guidance. Points for discussion by the Commission are contained in paragraph 32 of the report.

<sup>\*</sup> E/CN.3/2011/1.





#### I. Introduction

- 1. The present report sets out for the consideration of the Statistical Commission the recommendations for an international programme on short-term economic statistics as formulated by a series of three international seminars. These seminars have been organized as a joint initiative by the United Nations Statistics Division/Department of Economic and Social Affairs and the Statistical Office of the European Communities (Eurostat) in collaboration with Statistics Canada, Statistics Netherlands and the Russian Federal State Statistics Service (Rosstat).
- 2. This report contains five sections. Following section I, which provides the background to the joint initiative, section II outlines the international call for coordinated statistical action to the economic and financial crisis and describes the main outcomes of the three international seminars. Section III presents the recommendations for the international programme on short-term economic statistics for each of the identified four themes in turn. The way forward is presented in section IV, followed by the points for discussion in section V.

### II. Background

- 3. The programme statement of the Statistics Division at the fortieth session of the Statistical Commission in 2009 called for swift and coordinated statistical initiatives by countries and international organizations in response to the global economic and financial crisis. The programme of work for 2009-2010 of the Statistics Division included a number of international seminars, jointly organized with Eurostat, on the methodology for generating high-quality early warning and business cycle indicators, their international comparability and the communications strategy for such indicators.
- 4. The first of these seminars, the International Seminar on Timeliness, Methodology, and Comparability of Rapid Estimates of Economic Trends, was held in Ottawa from 27 to 29 May 2009 and was hosted by Statistics Canada. The main outcome of this seminar was the support for an international data template on short-term indicators and the request for the international community to assess its relevance and feasibility in terms of the availability, periodicity, timeliness and dissemination of high-frequency indicators, as well as its relevance to users in satisfying analytical and policy needs. In addition, the seminar indicated the need to develop a glossary of terms and definitions for rapid estimates and to update existing and draft new handbooks on composite indicators, rapid estimates and business tendency surveys given their extensive use in tracking economic activities.
- 5. The second seminar of the series, the International Seminar on Early Warning and Business Cycle Indicators, was held in Scheveningen, the Netherlands, from 14 to 16 December 2009 and was hosted by Statistics Netherlands. The seminar discussed the results of a global assessment of the proposed international data template on short-term indicators on the availability, timeliness, comparability and dissemination of short-term economic statistics, which was carried out as a follow-up to the first seminar. The second seminar further discussed a range of early warning and business cycle indicators and techniques to derive information for tracking economic developments and identified key areas that would require further work. Breakout sessions on these topics were held that provided an initial

assessment of the challenges and possible strategies for international work in these areas.

- 6. During a side meeting of the Statistical Commission in 2010 in New York, the organizers of the Scheveningen seminar decided to create four thematic working groups, which obtained terms of reference to advance the research and consultation for the identified four themes and prepare thematic programmes of work for short-term economic statistics. These thematic programmes of work would be reviewed at the third and last international seminar for subsequent onwards transmission to the Statistical Commission in 2011 for its endorsement.
- 7. The working groups and their main contributors are: the Working Group on Rapid Estimates, organized by Eurostat, Statistics Netherlands and the Statistics Division, with Eurostat being the lead agency; the Working Group on Business Cycle Composite Indicators, organized by Statistics Netherlands, Eurostat, The Conference Board and the Statistics Division, with Statistics Netherlands being the lead agency; the Working Group on Tendency Surveys organized by the Statistics Division, Eurostat, the European Commission, the Organization for Economic Cooperation and Development (OECD) and KOF, ETH Zürich, with the Division being the lead agency; and the Working Group on the Data Template and Analytical Indicators organized by the Statistics Division, Eurostat and the national statistical offices of Brazil and India, with the Division being the lead agency. Each of the working groups held numerous teleconference meetings in 2010 to formulate the recommended programmes of work.
- 8. The third international seminar of the series, the International Seminar on Early Warning and Business Cycle Indicators, was held in Moscow, from 17 to 19 November 2010 and was hosted by Rosstat. In this third and final seminar, participants reviewed the outcome of the work of the four working groups and submitted the recommendations to the Statistical Commission in 2011 for a forward-looking international programme on short-term economic statistics.
- 9. Each of the international seminars brought together a broad consultative platform of about 100 official statisticians, academics and policymakers and was inaugurated by elected officials at the ministerial level, leading national policymakers and senior Government statisticians. These seminars have provided a broad platform for consultation with representatives from more than 50 developed and developing countries and 15 international organizations in determining the recommendations for an internationally accepted programme on short-term economic statistics in 2011 and 2012 as the coordinated statistical response to the economic and financial crisis.
- 10. In addition to the three international seminars, the practical utility and relevance of the four thematic areas (rapid estimates, business tendency statistics and indicators, business composite indicators, and the role of national statistical systems in the compilation and release of those statistics and indicators) were discussed with the academic community during the European Colloquium on Modern Tools for Business Cycle Analysis, organized by Eurostat and held in Luxembourg in September 2010.

# III. Recommended programme of work on short-term economic statistics and key deliverables

11. The recommended programme of work and key deliverables will be presented for each of the four identified themes in turn and is based on the outcomes of the third international seminar. While presenting the programme for short-term economic statistics by four themes in turn, the proposed key deliverables together represent a single and coherent package of recommendations for a forward-looking programme on short-term economic statistics.

#### A. Programme of work on rapid estimates

- 12. The programme of work on rapid estimates aims to provide best practices and harmonized principles on the compilation and reporting of rapid estimates of key macroeconomic indicators. Rapid estimates (i.e. nowcasts, flash estimates, advanced/preliminary estimates) are regularly compiled in several countries and have become a referential statistical product for many statistical institutions. The increasing attention devoted to rapid estimates by the media and policymakers underlines the role that such estimates have in providing an early estimate of key short-term macroeconomic indicators. Usually, rapid estimates refer to an early estimate of gross domestic product (GDP), but other macroeconomic indicators may be the target of rapid estimates (e.g. consumer price index, GDP components, Industrial Production Index, employment and unemployment). Rapid estimates are important in their own right because they provide the first official assessment of short-term changes in economic activities. Yet there is no existing international statistical guidance in this area. In addition, clarification of the terminology associated with rapid estimates is necessary. The programme of work is intended to remedy the identified normative gaps.
- 13. Three key deliverables have been identified for 2011 and 2012, on which further information is provided in the background document to this report:
- (a) Glossary of terms. The proliferation of terms and definitions associated with rapid estimates (nowcasts, flash estimates, advanced/preliminary estimates) requires a clarification of the terminology used. Therefore, a glossary should clarify the different typologies of rapid estimates, their purposes and their characteristics and establish a common understanding of rapid estimates. It is intended for official statisticians and users of key short-term macroeconomic indicators and is expected to provide a harmonized terminology. It draws on consolidated experience in official statistics and on academic expertise. It is expected that the first draft of the glossary will be available at the end of 2011;
- (b) **Inventory of country practices on rapid estimates through a global assessment**. A systematic collection of the availability, timeliness and periodicity of rapid estimates in countries and their methodologies will allow for the determination of best practices and for the strengthening of international comparability of rapid estimates. This inventory will provide important input to the drafting of a handbook on rapid estimates. It is envisaged that the global assessment of country practices on rapid estimates will take place in 2011;

(c) Handbook on rapid estimates. This handbook will provide international statistical guidance based on best practices and harmonized principles for the compilation and reporting of rapid estimates. The handbook will be particularly useful for official statistical compilers and users. After reading the handbook, they will have a better understanding of the different typologies of rapid estimates, their methodological background, their technical construction, their characteristics and their usefulness for different purposes. The handbook outlines practical and suitable compilation methods and issues, draws on a wide range of experience and expertise, and benefits from recent theoretical and practical developments in the area. The handbook is intended to assist compilers in producing rapid estimates of key shortterm macroeconomic indicators in a comparable way, using best international practices, so that they can serve as reliable international comparisons of economic performance and behaviour. It is also intended to assist countries that plan to set up a more comprehensive system of estimates of key macroeconomic indicators by providing not only the methodological foundations for the compilation of rapid estimates, but also by giving practical guidance on individual steps and elements of the compilation process. The draft annotated outline of the handbook endorsed in the Moscow seminar will form the basis for the handbook. It is expected that the first draft of the handbook will be ready at the end of 2011 for further consultation and finalization in 2012.

#### B. Programme of work on business cycle composite indicators

- 14. The programme of work on business cycle composite indicators aims to provide best practices and harmonized principles on the compilation and reporting of business cycle composite indicators. Business cycle composite indicators are important in their own right because they address ongoing concerns of assessing short-term changes in economic activities. In addition, they serve as an integral part of the early warning system because they provide information about the occurrence and timing of upturns and downturns of the economy.
- 15. There is no existing international statistical guidance that provides best practices and harmonized principles on the formulation of business cycle composite indicators. It is therefore recommended that a handbook be drafted to address the standards for the compilation and presentation of the business cycle composite indicators to fill this gap. The handbook will not only be useful for those agencies of national statistical systems compiling or aspiring to compile business cycle composite indicators but also for those statistical agencies that are collecting short-term economic statistics and constructing datasets, which are used as component data for the construction of composite indicators.
- 16. The handbook is expected to be equally relevant for official statisticians in developing countries. Their economies are vulnerable to economic downturns and business cycle fluctuations, which might be caused by shocks from economic and financial crises in their domestic economy and the global economy. This vulnerability is explained by the structural shift away from an agricultural-based economy to a market-oriented economy, increasingly dependent on the performance of non-agricultural sectors and external markets. However, at present, there is a lack of short-term statistics and business cycle indicators even in the larger, emerging developing countries. In order to remedy these shortcomings of the national statistical systems, their early warning systems should be strengthened to address

the immediate concerns of the Government, business community and general public to assess, interpret and predict the short-term movement in the aggregate economic activity of their market economies.

- 17. In an emerging environment of analytical users in many developing countries, the national statistical office might be best placed to demonstrate the application of high-frequency statistics for the compilation of business cycle composite indicators and the selection of component data given their understanding of statistical and econometric techniques. Some of those national statistical offices have demonstrated a keen interest in the design of business cycle composite indicators and in advancing their knowledge in the properties of component short-term data series to provide information about short-term movements of their economy. Some national statistical offices even compile business cycle composite indicators as demanded by their users at the risk of being perceived as interpreting the underlying component time series of the composite indicators.
- 18. Two key deliverables have been identified for 2011 and 2012, on which further information is provided in the background document to this report:
- (a) Inventory of country practices on business cycle composite indicators through a global assessment. A broadening of the existing inventory with respect to the compilation and release of business cycle composite indicators is needed, focusing on best practices, especially in the field indicator compilation. Moreover, the global assessment will assist in the review of the quality of business cycle composite indicators. The results of the global assessment across a wide range of composite indicators will serve as a major input to the drafting of the handbook. It is expected that the global assessment will be launched and completed in 2011;
- (b) **Handbook on business cycle composite indicators**. There is no existing international statistical guidance that provides best practices and harmonized principles on the compilation and reporting of business cycle composite indicators. It is therefore recommended that a handbook be drafted to address the standards for the compilation and presentation of business cycle composite indicators to fill this gap. The handbook is intended for compilers and users of business cycle composite indicators. It draws on a wide range of experience and expertise, and outlines practical and suitable compilation methods and issues and benefits from recent theoretical and practical developments in the area. The handbook is intended to assist compilers in producing the business cycle composite indicators in a comparable way so that they can serve as reliable international comparisons of economic performance and behaviour using the best international practices. It is also intended to assist countries that plan to set up a more comprehensive system of business cycle measures by providing not only the methodological foundations for business cycle compilation, but also by giving practical guidance on individual steps and elements of the compilation process. Moreover, the handbook is intended to serve the needs of producers of short-term statistics and analytical users by making them aware of the statistical methods and techniques employed in the construction of composite indicators. The draft annotated outline of the handbook endorsed in the Moscow seminar will form the basis for the handbook. It is expected that the first draft of the handbook will be available at the end of 2011 for worldwide consultations and finalization in 2012.

#### C. Programme of work on tendency surveys

- 19. The programme of work on tendency surveys aims to provide best practices and harmonized principles on tendency survey sample selection, questionnaire design, survey questions, survey execution, data processing and the use of composite tendency indicators. These surveys provide qualitative information that cannot be collected using other quantitative statistical methods. They also serve as an integral part of an early warning system because they provide information about the occurrence and timing of upturns and downturns of the economy. A reliable system of qualitative short-term indicators can be seen as a valuable complement to the system of quantitative statistics. Furthermore, tendency surveys have proved a cost-effective means of generating timely information on short-term economic developments.
- 20. At present, there are guidelines for tendency surveys from the European Commission and OECD that provide a harmonized methodology for carrying out tendency surveys. These guidelines will form the basis of the proposed handbook on tendency surveys, which will expand on these existing guidelines to include additional economic sectors and will emphasize the harmonized recommendations on tendency survey practices.
- 21. This handbook is expected to be the internationally accepted set of guidelines applicable to all countries and multiple economic activities. It will be useful for national statistical organizations that carry out or intend to carry out tendency surveys as well as for the users of the statistics, including composite indicators.
- 22. One key deliverable has been identified for 2011 and 2012, since the global assessment on tendency surveys has been conducted in 2010. Further details of the deliverable are provided in the background document to this report:
  - Handbook on tendency surveys. The handbook will build and expand on the current guidelines of the European Commission and OECD on tendency surveys. The new handbook will expand the scope of the existing guidelines to include more economic sectors (e.g. agriculture, energy) and explicitly focus on the needs of developing countries in administering tendency surveys. It will draw on a wide range of experience and expertise, and outlines harmonization practices focusing in particular on the harmonization of the list of questions by economic activity. The handbook will be used as a guide for the process of setting up sample survey operations, data processing and analysis. The handbook will also guide users on the applicability of tendency surveys with respect to macroeconomic situations and provide guidance for the dissemination of survey results. The handbook is intended to serve the needs of analytical users by making them aware of the statistical methods and techniques employed in tendency surveys and composite tendency indicators. The draft annotated outline of the handbook endorsed in the Moscow seminar will form the basis for the handbook. It is expected that the first draft of the handbook will be available at the end of 2011 for worldwide consultations and finalization in 2012.

#### D. Programme of work on data template and analytical indicators

- 23. Central to the programme of work on data template and analytical indicators is the establishment of an internationally accepted data and metadata template for short-term economic indicators for the purpose of macroeconomic surveillance, early warning of economic and financial vulnerabilities and detection of turning points in business cycles. The moderation of the data and metadata template is accompanied by the review of the availability, adequacy and relevance of statistical methodologies and best practices for each of the short-term economic statistics and indicators in the data template, taking into account the components of the statistical production process. Where methodological standards for statistics and indicators of the data template are missing or considered inadequate (such as in the area of rapid estimates, business cycle composite indicators and tendency surveys), appropriate programmes of work are recommended to remedy these methodological gaps. Moreover, the feasibility of centralized hubs at the country level, led by country coordinators, should be explored. To ensure unified coordination and dissemination practices at the country level, the use of modern data sharing and exchange techniques, including Statistical Data and Metadata Exchange (SDMX) and modern visualization tools for data dissemination and communication, are progressively envisioned.
- 24. The development of an internationally accepted data and metadata template should not be perceived as a data-collection exercise for new data. Rather, the template should encourage countries to bring together existing short-term economic statistics and indicators through enhanced coordination within the national statistical system in a national central data hub. Countries should undertake these coordination efforts based on the broadly moderated and internationally accepted data template with the objective of improving the accessibility of strategic statistical information and reviewing the quality of existing short-term economic statistics. To assist countries in the strategic review and planning of the implementation of the data template of short-term economic statistics, the use of a new diagnostic tool is proposed to assess the current strengths and weaknesses of the national statistical system to compile and disseminate the required data set using an integrated economic statistics approach.
- 25. The proposed data template has been organized flexibly in three tiers. The recommended periodicity and timeliness of the three tiers is based on a global assessment undertaken in 2009 on the availability of short-term economic indicators in national statistical systems. The first tier consists of the minimum required short-term economic indicators that have strategic importance and are widely available. The second tier consists of analytically important short-terms indicators that are less widely available, and the third tier contains short-term indicators that have national significance given the structure of the economy. The Moscow seminar fully endorsed the internationally moderated data template and its three tiers and recommends its endorsement by the Statistical Commission as the internationally accepted data template for short-term economic indicators, subject to minor alignment with other international statistical initiatives.
- 26. The finalization of the data template including the metadata structure will be undertaken in coordination with other international initiatives in this area, especially the Principal Global Indicators for the Group of Twenty (G-20) countries led by the

Inter-Agency Group on Economic and Financial Statistics. With the internationally accepted template established, it is recommended that other data templates proposed for specific statistical domains and purposes be aligned to the extent possible with a view to adopting a common data and metadata structure for short-term statistics. At the same time, the use of the internationally accepted data template at the national level should reflect the availability and quality of data on these indicators and their relevance. The template could in the future be supplemented by additional indicators going beyond the economic dimension and providing a more complex picture of trends in the countries from the perspective of sustainable development.

- 27. As mentioned previously, a comprehensive inventory of existing methodological guidance and country practices for economic statistics has been established. This inventory has led to the creation of the Knowledge Base on Economic Statistics on the Statistics Division website. Methodological gaps to be remedied in 2011 and 2012 have been identified related to the statistics and indicators in the data template. Additional methodological gaps will be further assessed and flagged based on a broader consultation with the custodians of the statistical methodologies in 2011, and actions to remedy those gaps in the future will be identified. Furthermore, the Knowledge Base will be further updated by requesting States to submit information on their best practices in the different statistical domains.
- 28. The following key deliverables have been identified for 2011 and 2012. Further details of the deliverables are provided in the background document to this report:
- (a) Internationally accepted data template together with corresponding reference metadata. A final review of the existing version of the structure of the data and metadata template in its three tiers should be finalized by taking into account the latest developments in other international initiatives (such as the Principal Global Indicators for the G-20 countries) to reach an all-inclusive approach to the internationally accepted data and metadata template, irrespective of the level of development of the country. Of course, the internationally accepted template should be applied flexibly and only those short-term economic indicators should be selected that are applicable to the measurement and monitoring of the national economic activity. Only minor amendments to the data structure are expected, because considerable alignment with other international initiatives has already been achieved. Also, the short-term description and selected SDMX-based descriptions of metadata proposed at the Moscow seminar will be finalized. The contents of the data template in its three tiers, together with the proposal of the structure of the reference metadata, will be finalized in 2011;
- (b) Statistical guide for the internationally accepted data template and metadata structure. A statistical guide is to accompany the internationally accepted data template and reference metadata structure. The statistical guide will elaborate methodological descriptions and the use of individual short-term economic indicators. It will explain the statistical and analytical properties of short-economic indicators, why they are relevant in explaining economic activity and how they relate to an integrated set of short-term economic statistics of quarterly national

<sup>1</sup> See also E/CN.3/2011/6, section VI.

 $<sup>^2\</sup> Available\ from:\ http://unstats.un.org/unsd/EconStatKB/Knowledgebase.aspx.$ 

accounts and component data. The guide is intended to serve the compiler and the user of the indicators. It will contain useful links to reference material for more in-depth expositions. This statistical guide will build on the draft presented at the Moscow meeting. It is expected that the final draft will be completed in 2011 and be available for consultation in 2012;

- (c) **Updated Knowledge Base on Economic Statistics**. Continuous efforts will be made in 2011 and 2012 to update the Knowledge Base with new and updated methodologies and country practices. The global assessments undertaken by other subprogrammes will be a driver in obtaining country practices;
- (d) Country reports on practices in establishing national central data hubs. Individual countries will be invited to draft reports on their initiatives launched in 2011 to establish central data hubs with a single access point for the national statistical system based on the internationally accepted data template on short-term economic indicators. Several countries at the Moscow seminar volunteered to initiate pilot projects and other countries might like to join these initiatives. These country practices are expected to cover aspects of institutional governance and coordination, assessment of availability and quality of the short-term economic indicators, and the selection of the technical infrastructure to share and exchange data and metadata. It is expected that country reports will be available by the end of 2011;
- (e) Global assessment of the current situation in countries with regard to national central data hubs with a single access point to statistics related to the data template. A global assessment is needed in 2011 in order to evaluate the current situation in the countries and formulate adequate proposals with regard to establishing centralized data hubs for national statistical systems. It was also agreed that a single access point in each country to the statistical data based on the data template is highly desirable, because such central data hubs might facilitate standardization and harmonization of the production and quality of short-term economic statistics and indicators. They would also facilitate data sharing and transmissions among national and international organizations.

## IV. Way forward

- 29. Subject to the endorsement of the recommendations by the Statistical Commission in 2011, detailed terms of reference will be prepared for each of the four subprogrammes in collaboration with dedicated technical expert groups. The formation of the groups will be led by the Statistics Division and Eurostat in collaboration with Statistics Netherlands, Statistics Canada and Rosstat, based on the principle of broad and regional representation, with expertise across all regions so as to ensure that all regional concerns are addressed. The technical expert groups will report to an ad hoc advisory expert group on short-term economic statistics consisting of 15 to 20 representatives of the technical expert groups.
- 30. The actual writing of the handbooks and other statistical guides will be carried out by the members of the technical expert groups. Depending on resources, editors for the drafting of handbooks and other statistical guides will be appointed for the integration of the contributions by the other experts as well as for overall administrative coordination.

31. For 2011, the groups will mainly work through electronic exchanges, telephone and videoconferencing. It is expected that the advisory group will meet at least once during 2011 with a twofold objective: (a) to ensure appropriate harmonization and alignment across the handbooks; and (b) to draft a comprehensive agenda for short-term economic statistics, including capacity-building programmes and its governance for endorsement by the Statistical Commission in 2012.

#### V. Points for discussion

#### 32. The Commission is requested:

- (a) To provide guidance on the overall programme on short-term economic statistics as a coordinated response to the economic and financial crisis and moderated through a series of three international seminars, as recommended by the joint Statistics Division and Eurostat initiative in collaboration with Statistics Canada, Statistics Netherlands and Rosstat;
- (b) To encourage countries on a voluntary basis to initiate the creation of national central data hubs with a single access point in their national statistical system to enhance the accessibility of the nationally available short-term statistics and indicators based on a system-wide needs assessment;
- (c) To encourage countries to participate in the global assessments on rapid estimates and business cycle composite indicators and submit their practices of compilation and use of short-term economic indicators to the Statistics Division for inclusion in the Knowledge Base on Economic Statistics;
- (d) To invite for its consideration and review the submission of a status report on the progress of implementation of the programme of work in future sessions of the Commission.