# Chapter 1: Introduction

### **Contents**

1.1 Background	. 1
1.2 Initiatives by the Conference of European Statistician	. 2
1.3 Purpose of the recommendations	
1.4 Overview of the recommendations	. 4
1.6 Acknowledgments	
1.7 Topics for further work	

### 1.1 Background

#### Leading, composite and sentiment indicators

Leading, composite and sentiment (LCS) indicators cover a broad and diverse group of statistical measures, which in different ways aims to provide information about the society and its individuals.

Leading indicators aims to anticipate the development of a reference series. Typically, leading indicators are constructed to predict the cycles of industrial production or gross domestic product (GDP), which are seen as proxy measures for economic development. Composite indicators are constructed to measure more complex, or multidimensional phenomena by combining individual indicators into one single measure. Sentiment indicators are compiled to reflect the perceptions, attitudes or expectations of groups of respondents, e.g. different groups of individuals, households or businesses.

LCS indicators offers information on a range of topics that are not covered by what may be considered traditional official statistics, or which typically have not been covered by national statistical offices. Moreover, LCS Indicators may also provide information on complex issues in a relative simple or condensed form, which appeals to many users of statistics, including policy makers and the media, who increasingly are referring to LCS indicators.

Over the previous decade there has been a growing demand for LCS indicators, which are becoming still more common in different areas, including business cycles analysis, measuring of well-being and sentiment indicators expressing the confidence of business in the economic development or that of households towards the future or their sense of happiness or safety. LCS indicators are also becoming more and more common for international comparisons to assess country performance, and are increasingly used for policy making.

The demand for LCS indicators has been driven by evolving user needs for indicators that are easier to compare and provide information in condensed form and shed light on areas traditionally not covered, or not covered very well, by most national statistical offices (NSOs). Some LCS can be compiled relative quickly and hence give earlier indications of developments than can be found in traditional statistical series. The development is facilitated by the growing abundance of data and IT tools and software, which makes the production of LCS indicators much easier than in the past. Hence, many LCS indicators are produced by other data providers than the NSOs.

#### The role of NSOs in producing LCS indicators

LCS indicators are potentially an area where official statistics could cooperate for the benefit of all stakeholders. However, there are different practices in different countries, as well as different views on the role of NSOs in the production of LCS indicators. Some NSOs consider LCS indicators out of scope of what they should produce, or do not see LCS indicators as a priority. Some NSOs also fear that engaging in the production of LCS may harm the credibility of the NSOs as the provider of official statistics.

Other NSOs have considerable experience in producing LCS indicators, or are considering the possibility to engage in the production of LCS indicators. NSOs can ensure that indicators are produced based on the principles of official statistics and by disseminating the indicators improve users' perception of the relevance and value of official statistics. It can also be argued that if statistical offices do not use their data and expertise to produce these indicators, they may be produced by other organizations not adhering to the principles of official statistics.

There is, however, no general consensus on what the role of national statistical offices should be with regard to LCS indicators. Should LCS indicators be left to others, or should NSOs take a greater role in the development and production of LCS indicators on key topics? Should NSOs be more active in providing data for these purposes or also offer their competence for improving the quality of LCS indicators produced by others?

#### Scope of the recommendations

While the scope of these recommendation are leading, composite and sentiment indicators, the terminology may be misleading and give the impression that these are three distinctive and separate types of indicators. However, the terms are overlapping. For instance, a composite indicator may be based on regular, quantitative indicators, but may also include one or more sentiment indicators, or be composed of sentiment indicators only. Further, both composite and sentiment indicators can be leading indicators aiming at predicting some likely future development, but may also aim to estimate a current or past development or phenomenon. The *temporal* dimension of composite and sentiment indicators, whether they are supposed to estimate future, coincident or past phenomena, can thus be considered a characteristic of the indicators.

In these recommendations, therefore, leading indicators are not dealt with as a separate group of indicators but considered a subset of composite and sentiment indicators. Hence, the discussions and recommendations on composite and sentiment indicators will also cover leading composite indicators and leading sentiment indicators. Nevertheless, for the sake of simplicity, the reference to LCS indicators is used throughout the recommendations.

The recommendations do not deal with traditional statistical measures, such as the gross domestic product or the consumer price index (CPI). The role of NSOs in their production is well-established and a wealth of international statistical standards and recommendations on their production are available for NSOs to draw upon.

### 1.2 Initiatives by the Conference of European Statistician

Due to the growing importance of LCS indicators the Bureau of the Conference of European Statisticians (CES) in January 2014 undertook an in-depth review of leading, composite and sentiment indicators with the aim to discuss the role of official statistics in this context. As a basis for the indepth review, the UNECE Secretariat carried out a survey on the practices in the area of LCS indicators of NSOs in December 2013 and received replies from 38 CES countries<sup>1</sup>. The survey confirmed different practices and different views on the involvement of NSOs in the production of LCS indicators.

The Bureau concluded that exchange of experiences and best practices would help countries, which are producing such indicators, even though work in this area is not a priority for all statistical offices. Development work should be carried out at international level with NSOs' involvement to share experiences and avoid duplication of efforts. The Bureau also found that the area lacks international coordination and a systematic approach, that there is a need to achieve a common understanding of the role of statistical offices in this area and for guidance for NSOs that produce or consider producing LCS indicators.

<sup>&</sup>lt;sup>1</sup> Armenia, Australia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Israel, Italy, Japan, Kazakhstan, Latvia, Lithuania, Mexico, Moldova, Mongolia, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovak Republic, Sweden, Switzerland, Turkey, Ukraine and United Kingdom.

The CES plenary session in April 2014 confirmed a large interest of NSOs in LCS indicators but also different views on to what extent NSOs should engage in the production of LCS indicators. The Conference concluded that it would be useful to further discuss the role of official statistics and the challenges in compiling and disseminating LCS indicators and to clarify the responsibilities and boundaries of national statistical offices' role with regard to LCS indicators.

The Bureau in February 2016 agreed to establish a Task Force on Leading, Composite and Sentiment Indicators to develop recommendations of good practices for NSOs for producing LCS indicators. The recommendations should clarify the possible roles of NSOs in producing LCS indicators, suggest criteria for NSOs involvement in the production of LCS indicators and provide guidance for NSOs' production of such indicators. Throughout, the recommendations should take relevant methodological guidelines and handbooks into account, such as those provided by Eurostat, OECD and UNSD¹. The recommendations should not duplicate existing material but refer to this when useful and give guidance on how to select between different methods.

Two Seminars on the role of NSOs in producing LCS were organised as part of the work. The first Seminar in December 2015 focused on discussions of the role of national statistical offices in the production of LCS indicators, criteria for their involvement and communication challenges related to these types of indicators. The second Seminar in July 2017 discussed the draft chapters of the recommendations and country experiences and best practices.

### 1.3 Purpose of the recommendations

The recommendations should provide guidance to compilers and managers in NSOs that produce or consider producing composite or sentiment indicators. The recommendations should meet the needs of countries with experience in producing CS indicators as well as countries that have no or less experience in this area.

There are three main objectives of the Recommendations:

#### 1. To clarify the role of NSOs and official statistics in producing LCS indicators.

The recommendations should clarify the different roles of NSO in producing LCS indicators and give strategic advice on how to meet user demands for LCS indicators while adhering to the principles of official statistics and not risking the trust in NSOs statistics. Identify problems and issues associated with the production of the indicators and discuss the challenges – opportunities and risks – for NSOs in producing LCS indicators. The recommendations should also provide guidance on the preconditions and limits for NSOs involvement in the compilation of the different types of indicators and on communication strategies that could be useful for NSOs.

#### 2. Provide strategic and operational guidance to NSOs on producing CS indicators

Include a typology of LCS indicators in terms of definitions and explanations of the different types of indicators, compilation methods, their use and main characteristics. The recommendations should identify such methods that are considered more useful and suitable for NSOs, without going into methodological or technical details. Give strategic/operational guidance on how to implement these methods, and refer to relevant literature. The recommendations should also propose a quality framework based on the principles of official statistics for NSOs' production of LCS indicators, highlight risks and pitfalls in the compilation and dissemination and how these may be dealt with and address issues related to international comparability.

### 3. To provide good practice examples to NSOs in producing LCS indicators.

<sup>&</sup>lt;sup>1</sup> The Handbook on Constructing Composite Indicators (OECD, 2008), Towards a Harmonised Methodology for Statistical Indicators (Eurostat, 2014) and the Handbook on Cyclical Composite Indicators (UNSD, Eurostat and the Conference Board).

The Recommendations provide a collection of good practice examples of compilation and dissemination of LCS indicators, which describes data sources, compilation methods and dissemination.

### 1.4 Overview of the recommendations

The Recommendations are structured in six chapters, a glossary and annexes. Each chapter can be read separately, however, the reader should be familiar with the main concepts used, which are described in Chapter 3. The Recommendations also include national and international good practice examples presented throughout the Chapters and in the Annexes.

Chapter 2 on the role of NSOs in producing LCS indicators describes the developments in recent years that have changed the demand for statistical information. The chapter examines the demand for LCS indicators in relation to the value of official statistics. It looks at the various aspects of why NSOs should have a more active role in producing LCS, and lists a number strengths, weakness, opportunities and threats that NSOs should to take into account when considering producing LCS indicators. The chapter also looks at some key factors to be taken into account when disseminating and communicating LCS indicators.

A typology of indicators is presented in chapter 3. This typology is helpful in understanding the borders and inter-linkages between different types of indicators. The Chapter provides definitions and concrete examples of the main indicator types used in these Recommendations.

Sentiment indicators are presented in chapter 4. The chapter deals mainly with single economic and single socio-economic sentiment indicators. The chapter provides information on the background, compilation procedures, usage, pros and cons and analysis of sentiment indicators. Issues linked to dissemination and international comparability are also described in this chapter.

Chapter 5 provides an overview of economic composite indicators. These indicators can be divided in cyclical and non-cyclical composite indicators and may or may not have a reference series. Main methods and issues to be considered in constructing these indicators are presented in the chapter.

Chapter 6 on Composite socio-economic indicators presents the main advantages and disadvantages in engaging in the production of composite socio-economic indicators. Furthermore, the chapter presents the steps for constructing composite socio-economic indicators and finally issues associated with dissemination of these indicators.

Chapter 4 to 6 ends with concrete proposals for NSOs in production and dissemination of indicators discussed. For the ease of reading, a glossary is available at the end of the Recommendations with definitions of the main concepts used throughout the chapters.

# 1.6 Acknowledgments

The Recommendations were prepared by the UNECE Task Force on Leading, Composite and Sentiment Indicators. The Task force was chaired by Monica Nelson Edberg (Sweden) and consisted of the following members: Erik Slento (Denmark), Aron Kincses (Hungary), Daniel Roash (Israel), Fabio Bacchini and Roberto Iannaccone (Italy), Yuriko Yabuta Osorio (Mexico), Leendert Hoven, Frank van de Pol, Hans Schmeets (Netherlands), Hans-Olof Hagén (Sweden), Arzu Eratak (Turkey), Gian Luigi Mazzi (Independent Expert), Rosa Ruggeri Cannata (Eurostat), Jeroen Boelhouwer (Netherlands Institute for Social Research), Pierre-Alain Pionnier (OECD), Ilaria DiMatteo and Herman Smith (UNSD), Carsten Boldsen, Evan Brand and Evita Sisene (UNECE).

The annexes of the Recommendations include a number of country examples and case studies provided by: tbc

# 1.7 Topics for further work