Data Template and Metadata for Short-term Statistics

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Department of Economic and Social Affairs

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Symbols of United Nations documents are composed of letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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The preparation of the *Handbook on Data Template and Metadata for Short-Term Statistics* was initiated by the Statistical Commission as part of the international programme of work on short-term economic statistics, which was developed in response to the 2007/2008 economic and financial crisis. The international programme on short-term statistics was the result of a wide consultation process, initiated by the United Nations Statistics Division and Statistical Office of the European Union (Eurostat), in collaboration with Statistics Canada, Statistics Netherlands and the Russian Federal State Statistics Service to develop a coordinated statistical response to the economic and financial crisis. Four themes were identified in the programme: business cycle composite indicators, economic tendency surveys, rapid estimates, and data template and analytical indicators.

For each thematic area the Commission approved the preparation of a handbook with a view to providing guidance, best practices and harmonized principles to assist member States in compiling and reporting internationally comparable short-term statistics.

The *Handbook on Data Template and Metadata for Short-Term Statistics* is one of the four handbooks to be produced under the programme. The *Handbook* elaborates methodological descriptions and the use of individual short-term statistics. It explains the statistical and analytical properties of short-term statistics, why they are relevant in explaining economic activity and how they relate to an integrated set of short-term statistics of quarterly national accounts and component data. The *Handbook* is intended to serve both the compiler and the user of the statistics. It contains useful links to reference material offering more in-depth expositions.

The *Handbook* was drafted by a team from the national accounts section of the United Nations Statistics Division, comprising Ilaria di Matteo, Charlotte French, Shaswat Sapkota, Benson Sim and Leonardo Souza. The team was led by Mr. Sim under the general guidance and supervision of Herman Smith. Mr. Sapkota prepared the first draft of chapters 1 and 3, Mr. Souza the first draft of chapter 2, Mr. Sim the first draft of chapter 4, Ms. Di Matteo the first draft of chapter 5, and Messrs. Sim and Sapkota the first draft of chapter 6. Ms. French provided research support for the various parts of the handbook. Mr. Sim also reviewed all the draft chapters written by the team.

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Ivo Havinga provided overall supervision of the work.

List of acronyms and abbreviations

ANZSIC	Australian and New Zealand Standard Industrial Classification
BIS	Bank for International Settlements
BOP	balance of payments
BPM	Balance of Payments and International Investment Position Manual
CAS	Country Assistance Strategies
CES	Conference of European Statisticians
c.i.f.	cost, insurance, and freight
CI	confidence index
CKAN	Comprehensive Knowledge Archive Network
CIRET	Centre for International Research on Economic Tendency Surveys
COFOG	Classification of the Functions of Government
COICOP	Classification of Individual Consumption According to Purpose
COPNI	Classification of the Purposes of Non-Profit Institutions Serving Households
CPC	Central Product Classification
CPI	consumer price index
CWM	Common Warehouse Metamodel
DDI	Data Documentation Initiative
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
EBOPS	Extended Balance of Payments Services Classification
ECB	European Central Bank
e-GDDS	Enhanced General Data Dissemination Standard
ESA	European System of National and Regional Accounts
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESCWA	United Nations Economic and Social Commission for Western Asia
ESMS	Euro SDMX metadata structure
EU	European Union
Eurostat	Statistical Office of the European Union

FCSA	Federal Competitiveness and Statistics Authority
FISIM	financial intermediation services indirectly measured
f.o.b.	free on board
GDDS	General Data Dissemination Standard
GDP	gross domestic product
GFSM	Government Finance Statistics Manual
GNI	gross national income
HICP	Harmonised Index of Consumer Prices
HS	Harmonized Commodity Description and Coding System
IAG	Inter-Agency Group on Economic and Financial Statistics
IBRD	International Bank for Reconstruction and Development
ICLS	International Conference of Labour Statisticians
ICP	International Comparison Programme
IDA	International Development Association
IIP	International Investment Position
ILO	International Labour Organization
IMF	International Monetary Fund
IMTS	International Merchandise Trade Statistics
INEGI	National Institute of Statistics and Geography of Mexico
ISIC	International Standard Industrial Classification of All Economic Activities
ISO	International Organization for Standardization
ISWGNA	Intersecretariat Working Group on National Accounts
IT	information technology
ITRS	International Transaction Reporting System
IWGPS	Inter-Secretariat Working Group on Price Statistics
KOSIS	Korean Statistical Information System
KOSTAT	Statistical Office of the Republic of Korea
LFS	labour force survey
MDG	Millennium Development Goals
MFI	monetary financial institution
MFSMCG	*Monetary and Financial Statistics Manual and Compilation Guide*
MMF	money market fund
MPI	Import Price Index
MRDS	minimum requirement data set
NPISH	non-profit institution serving households
NSDP	National Summary Data Page

NSDS	national strategies for the development of statistics
NSO	national statistical office
NSS	national statistical system
OECD	Organisation for Economic Co-operation and Development
PARIS21	Partnership in Statistics for Development in the 21st Century
PEEIs	principal European economic indicators
PGI	principal global indicators
PPI	producer price index
PPP	Purchasing Power Parity
PRSP	Poverty Reduction Strategy Papers
PSDSG	*Public Sector Debt Securities: Guide for Compilers and Users*
QNA	quarterly national accounts
ROSC	Reports on the Observance of Standards and Codes
SDG	Sustainable Development Goals
SDDS	Special Data Dissemination Standard
SDMX	Statistical Data and Metadata Exchange
SITC	Standard Industrial Trade Classification
SNA	System of National Accounts
STI	short-term indicators
TFSCB	Trust Fund for Statistical Capacity Building
TRA	Telecommunication Regulation Authority
UN	United Nations
UNSC	United Nations Statistical Commission
UNSD	United Nations Statistics Division
VAT	value added tax
WB	World Bank
XML	Extensible Markup Language
XMPI	export and import price indices
XPI	Export Price Index

Contents

Introduction

Background

In 2009, the United Nations Statistical Commission called for swift and coordinated statistical initiatives by countries and international organizations in response to the global economic and financial crisis. Subsequently, the United Nations Statistics Division, along with Eurostat, organized a number of international seminars on the methodology for generating high-quality early warning and business cycle indicators, their international comparability and the communications strategy for such indicators.

The first of these seminars—the International Seminar on Timeliness, Methodology, and Comparability of Rapid Estimates of Economic Trends—was held in Ottawa in 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 statistics and the request for the international community to assess its relevance and flexibility in terms of availability, periodicity, timeliness and dissemination of high-frequency indicators. 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 cyclical composite indicators, rapid estimates and business tendency surveys given their extensive use in tracking economic activities. The second seminar of the series—the International Seminar on Early Warning and Business Cycle Indicators—was held in Scheveningen, the Netherlands, in December 2009 and was hosted by Statistics Netherlands. This seminar discussed the results of a global assessment of the proposed international data template for short-term statistics. The organizers of this seminar also decided to create four thematic working groups (cyclical composite indicators, economic tendency surveys, rapid estimates and data template and analytical indicators) to prepare thematic programmes of work for short-term statistics at a side meeting of the Statistical Commission in 2010. The third seminar of the series—the International Seminar on Early Warning and Business Cycle Indicators—was held in Moscow in November 2010 and was hosted by the Federal State Statistics Service of the Russian Federation. Participants reviewed the outcome of the work of the four working groups and submitted the recommendations for a forward-looking international programme on short-term statistics to the United Nations Statistical Commission in 2011. The Moscow seminar also fully endorsed the internationally moderated data template.

In addition to the three international seminars, the practical utility and relevance of the four thematic areas 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.

Another statistical response was the formation of the Inter-Agency Group on Economic and Financial Statistics (IAG), comprising the Bank for International Settlements (BIS), the European Central Bank (ECB), Eurostat, the International Monetary Fund (IMF, Chair), the Organisation for Economic Co-operation and Development (OECD), the United Nations, and the World Bank in 2008 to coordinate statistical issues and data gaps highlighted by the global

crisis and to strengthen data collection. One key outcome of the IAG was a report containing 20 recommendations to better capture the build-up of risk in the financial sector, improve data on international financial network connections, monitor the vulnerability of domestic economies to shocks and improve communication of official statistics to address the information gaps that had been highlighted by the crisis.[1]

The Statistical Commission, at its forty-second session in 2011, considered the international programme of work on short-term statistics as part of a coordinated statistical response to the economic and financial crisis. The international programme comprised four themes, namely, cyclical composite indicators, economic tendency surveys, rapid estimates, and data template and analytical indicators. The Statistical Commission, inter alia, approved the preparation of handbooks on those themes with a view to providing guidance, best practices and harmonized principles to assist member States in compiling and reporting internationally comparable short-term statistics.

Purpose of the Handbook

The *Handbook on Data Template and Metadata for Short-Term Statistics* (the *Handbook*) is one of the four handbooks under the international programme on short-term statistics. The *Handbook* provides useful guidance and recommendations on the short-term statistics in the data template and their metadata. The *Handbook* elaborates methodological descriptions and the use of individual short-term statistics. It explains the statistical and analytical properties of short-term statistics, why they are relevant in explaining economic activity and how they relate to an integrated set of short-term statistics of quarterly national accounts and component data. The *Handbook* is intended to serve both the compiler and the user of the statistics. It contains useful links to reference material offering more in-depth expositions.

Structure of the Handbook

The *Handbook* comprises six chapters. Chapter 1 presents and discusses the data template for short-term statistics in terms of its scope and coverage and the analytical and statistical frameworks for each of the categories in the data template.

Chapter 2 describes the statistical standards and compilation guidance underlying the compilation of the statistics in each category of the data template for short-term statistics. The chapter also briefly describes the data sources and collection methods for the statistics in each category of the template.

Chapter 3 provides a quick introduction to metadata, presents the need for statistical metadata and provides an overview of different metadata standards. It then discusses suggestions which are relevant for the metadata structure for short-term statistics and highlights examples of metadata that can be applied to the data template for short-term statistics.

Chapter 4 discusses how the data template for short-term statistics can be used to derive analytical indicators to monitor and measure the performance of the national economy and its segments. The chapter starts by discussing the objectives of analytical indicators. It then describes the various types of analytical indicators and discusses the key principles governing how each type can be developed, best used and interpreted. For each type, a list of most commonly used indicators is also provided. Unfortunately it is not possible to enumerate an exhaustive list of analytical indicators that can be applied in all countries and in all circumstances given the diversity of the needs of users and the fact that they may change over time.

[1] The 20 recommendations have been endorsed by the Group of 20 finance ministers and central-bank governors and are described in Financial Stability Board and International Monetary Fund (2009). The IAG has since then played a central role in the implementation of these recommendations.

Chapter 5 elaborates on the concepts of a "centralized" data hub for short-term statistics to facilitate the dissemination, and thus the use, of short-term statistics. It also describes the benefits of establishing data hubs and presents key elements that should be taken into consideration when establishing such data hubs. The chapter also presents examples of data hubs that have been established in a number of countries.

Chapter 6 concludes by providing guidance for developing an implementation programme for the short-term statistics in the data template. The chapter starts by discussing the issues to consider in setting up the implementation programme. It then describes a self-assessment questionnaire that could be used to determine the strengths and weaknesses of the short-term statistics that are currently being compiled by the various agencies in the country. The questionnaire can also be used to determine which statistics are not being compiled and assess whether there is scope to compile these statistics to meet policy needs. The chapter also describes a summary guidance on the international standards and best practices that countries should adhere to when compiling the short-term statistics in the data template. The chapter concludes by describing the consolidation of the statistical requirements and the assessment of the current status of short-term statistics into an action plan to address the weaknesses in the compilation of the current set of short-term statistics. Given that most of the statistics in the data template are needed for the compilation of the national accounts, it is recommended that the programme to implement the data template for short-term statistics be aligned with the national programme for the implementation of the 2008 SNA and supporting statistics.

Chapter 1
Data template for short-term statistics

A. Introduction

1.1.   This chapter presents the data template for short-term statistics which was established based on a global assessment undertaken in 2009 on the availability of short-term statistics in national statistical systems. It first provides an overview of short-term statistics in section B. Section C discusses and presents the data template for short-term statistics by defining the statistics in each category and by describing the scope and coverage, and the analytical and statistical frameworks underlying these statistics. Section D concludes by providing an overview of frameworks for short-term statistics which have been developed by other international and regional organizations.

B. Overview of short-term statistics

B.1. What are short-term statistics?

1.2.   Short-term statistics comprise a range of statistical series that are generally compiled and disseminated on a daily, weekly, monthly or quarterly basis and shed light on recent developments in key aspects of national economies. They are tools for formulating and monitoring economic and monetary policy by national governments and central banks, companies, academic institutions and financial markets. Examples of daily statistics include stock market price indices and commodity prices. An example of weekly statistics is the jobless claims data reported in some countries. Examples of monthly statistics include the consumer and other price indices, production and turnover indices as well as employment and unemployment statistics. An example of quarterly statistics is the quarterly gross domestic product (GDP) estimates reported in many countries.

B.2. Uses of short-term statistics

1.3.   Short-term statistics have two broad uses. First, short-term statistics can be used for policy, monitoring and analysis. Short-term statistics facilitate the analysis of recent economic performance and provide a basis for the preparation of forecasts of future performance. Short-term statistics measure short-term movements in key areas of the economy such as money supply, changes in prices paid by consumers for goods and services, changes in the selling prices of goods and services received by producers, changes in consumer perceptions about the health of the national economy, increases/decreases in the number of persons employed/unemployed, changes in the level of consumer spending, changes in the level of building activity, and changes in the level of manufacturing production in manufacturing and mining, etc. that could be caused by internal and external shocks. A more specific application of short-term statistics is the study of business cycles. Some short-term statistics such as cyclical composite indicators

and tendency indicators form part of an early warning system for the occurrence and timing of economic upturns and downturns. From these various analyses, timely and appropriate fiscal and monetary policies can be formulated to tackle the impact. In addition, in many countries, national budgets are proposed and discussed in the fourth quarter of each calendar year. This requires timely up-to-date statistics to support the formulation of those budgets. In contrast to annual statistics, which lag behind the time frame, timely key short-term statistics provide a more up-to-date gauge of recent economic performance and thus provide more useful input to the budgetary process.

1.4.   The second broad use of short-term statistics is statistical in nature. Short-term statistics can be used as inputs to the compilation of national accounts. For example, quarterly consumer, producer, export and import price indices can be used as deflators to calculate the relevant components of expenditure-based quarterly GDP in volume terms. The quarterly index of production and retail sales index can be used to calculate the relevant components of production-based quarterly GDP in volume terms. The retail sales index can be used to track changes in household consumption in volume terms. In addition, various short-term statistics can be used to compile other short-term indicators such as the composite leading, lagging and coincident indicators. Furthermore, short-term statistics are also used as inputs in econometric models for various purposes, one of which is to provide a forecast of the short-term performance of the economy.

C.   Data template for short-term statistics

C.1. Overview of the data template

1.5.   The data template for short-term statistics is based on the *System of National Accounts 2008* (2008 SNA), which has been recognized by the Statistical Commission as the relevant international statistical standard to meet the information needs for monitoring rapid changes in economic and financial conditions. The template also draws on other standards and international recommendations such as the *Balance of Payments and International Investment Position Manual*, Sixth Edition (BPM6), for the external sector and related normative recommendations for the general government sector, financial corporations sector, prices and business statistics.

1.6.   Table 1.1 provides an overview of the short-term statistics in the data template and the definitions of these statistics. These statistics can be measured at current prices and/or volume terms and can also be seaxsonally adjusted. The template consists of 12 categories of statistics for the monitoring of macroeconomic and institutional sectoral developments through quarterly national accounts (QNA) supplemented by short-term statistics for production, prices, markets (labour, real estate and financial) and sectors (government, financial, non-financial, household and external sectors). These 12 categories follow logically from the consolidation and rearrangement of the standards developed by Eurostat through its principal European economic indicators (PEEI)[2] and by the IMF through its Special Data Dissemination Standard Plus (SDDS Plus),[3] Special Data Dissemination Standard (SDDS)[4] and enhanced General Data Dissemination System (e-GDDS).[5] The template is also reflected in the Principal Global Indicators (PGI)[6] developed by the IAG.

1.7.   The data template is organized in three tiers, and the recommended periodicity[7] and timeliness[8] was established based on a global assessment undertaken in 2009 on the availability of short-term statistics in national statistical systems. The first tier consists of the minimum required set of short-term statistics that have global strategic importance and are widely available. The second tier consists of analytically important short-term statistics that are less widely available, and the third tier contains short-term statistics that have national significance given the structure of the economy. Some data categories also recommend other relevant statistics for countries to consider. The choice of whether to include the other relevant statistics in the data

[2] See http://ec.europa.eu /eurostat/web/euro-indicators /peeis.

[3] See http://dsbb.imf.org/Pages /SDDS/Home.aspx.

[4] See http://dsbb.imf.org/pages /SDDS/home.aspx.

[5] See http://dsbb.imf.org/Pages /GDDS/Home.aspx.

[6] See www.principalglobal indicators.org/Pages/Default .aspx.

[7] Periodicity refers to the frequency of compilation of the data (i.e., the relevant period covered by a data observation, e.g., annually, quarterly, monthly, weekly, daily, etc.).

[8] Timeliness refers to the speed of dissemination of the data, which refers to the lapse of time between a reference date (or close of a reference period) and dissemination of the data.

template depends on the importance of these statistics in the context of the country concerned and their availability. For those short-term statistics which are in the SDDS Plus, SDDS and/or e-GDDS, the recommended timeliness follows the recommendations in these standards. For those statistics which are not in these three standards, the recommended timeliness either follows those for related short-term statistics in these three standards or compilation guides and manuals.

1.8.   The data template comprises traditional short-term statistics recommended and prescribed in existing dissemination standards. Where possible, it includes accelerated releases of traditional short-term statistics. For each set of statistics, a description which consists of the main elements of the scope and coverage of the statistics and their analytical and statistical framework are provided. The analytical framework highlights the specific analytical use and policy relevance of the statistics for monitoring and reporting of all economic and financial developments. The statistical framework elaborates on the data sources, periodicity and timeliness of the statistics. These descriptions of the data categories could be further refined and elaborated to serve a dual purpose of guiding both the drafting of commentaries on the observed trends in the data as well as the promotion of the policy relevance of the statistical dissemination framework.

Table 1.1
Data template for short-term statistics

Description		Definition	Tier	Periodicity	Timeliness
Set 1: National accounts					
1.1	Quarterly national accounts: flash GDP estimate	Quarterly national accounts (QNA) constitute a system of integrated quarterly time series coordinated through an accounting framework. QNA adopt the same principles, definitions, and structure as the annual national accounts (ANA). In principle, QNA cover the entire sequence of accounts and balance sheets in the System of National Accounts (SNA); in practice, the constraints of data availability, time and resources mean that QNA are usually less complete than ANA.	Tier 1	Quarterly	1M
		A flash GDP estimate is an early estimate for GDP over the most recent reference period and is normally calculated on the basis of a statistical or econometric model. The flash GDP estimate should have a release date appreciably earlier than the first release date of the actual GDP data.			
		Although flash GDP estimates are likely to be calculated using a more incomplete set of information than the set used for traditional GDP estimates, they are produced using the same methodology that is employed for the regular GDP estimates. Statistical techniques can help in adjusting the temporary incomplete observations.			
		If possible, seasonally unadjusted and seasonally adjusted current price and volume measures of the flash estimates should be made available.			
1.2	Quarterly national accounts: GDP full release	The quarterly national accounts-GDP full release consists of the full GDP release with breakdown by expenditure components, production components by economic activity and income, and the quarterly institutional sector accounts covering the full sequence of accounts and balance sheets.			
		There are three approaches to the calculation of gross domestic product (GDP). 1) GDP by expenditure is the sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchasers' prices, less the value of imports of goods and services. 2) GDP by production is an aggregate measure of production equal to the sum of the gross value added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their output). 3) GDP by income is the sum of primary income distributed by resident producer units. Where appropriate, seasonally unadjusted and seasonally adjusted current price and volume measures of the estimates should be made available.			
		The minimum requirement data set (MRDS)[a] should be used as a guideline for the breakdown of the QNA.			

Table 1.1 (*continued*)
Data template for short-term statistics

1.2.1	By expenditure	GDP by expenditure is calculated as follows: GDP = final consumption expenditure by household and by non-profit institutions serving households + government final consumption expenditure + gross fixed capital formation + changes in inventories + acquisitions less disposals of valuables + exports of goods and services – imports of goods and services	Tier 1	Quarterly	1Q (SDDS)
1.2.2	By production	GDP by production is calculated as follows: GDP = total gross value added at basic prices + taxes less subsidies on products where gross value added (GVA) at basic prices = output at basic prices less intermediate consumption at purchasers' prices	Tier 1	Quarterly	1Q (SDDS)
1.2.3	By income	GDP by income is calculated as follows: GDP = compensation of employees + gross operating surplus and mixed income + taxes less subsidies on production and imports	Tier 2	Quarterly	1Q (SDDS)
1.3	Quarterly sector accounts	The quarterly sector accounts consist of the SNA sequence of accounts by institutional sector, i.e., non-financial corporations, financial corporations, general government, households and non-profit institutions serving households (NPISHs).	Tier 3	Quarterly	1Q (SDDS)
Set 2: Production and turnover					
2.1	Index of industrial production by major division (mining, manufacturing, electricity, water, etc.)	The index of industrial production (IIP) measures changes over time in the price-adjusted output of industry. The theoretical aim of the IPI is to reflect short-term developments in value added. The scope of the industrial sector is defined to cover, in terms of ISIC Rev. 4, section B (mining and quarrying), section C (manufacturing), section D (electricity, gas, steam and air-conditioning supply) and section E (water collection, treatment and supply, sewerage, waste collection and remediation activities). The index of industrial production is widely used as a short-term economic indicator in its own right because of the impact that fluctuations in the level of industrial activity have on the remainder of the economy.	Tier 1	Monthly	6-12 W (e-GDDS) 6W, 1M encouraged (SDDS)
2.2	Production index for construction	The production index for construction measures changes over time in the price-adjusted output of construction (Section F of ISIC Rev. 4). It provides a measure of the volume trend in value added over a given reference period.	Tier 2	Monthly	6-12 W (e-GDDS) 6W, 1M encouraged SDDS)
2.3	Turnover index for retail trade	The turnover index for retail trade shows the changes over time in the activity of the retail sector in value and volume. It is a short-term indicator for final domestic demand. The scope of retail trade turnover index includes the activities listed in Division 47, Section G, of ISIC Rev.4 (retail trade, except of motor vehicles and motorcycles).	Tier 2	Monthly	1M (SDDS)
2.4	Turnover index for industry by major division	The turnover index for industry shows the changes over time in the activity of industries in value and volume. The scope of the industrial sector is defined to cover, in terms of ISIC Rev. 4, section B (mining and quarrying), section C (manufacturing), section D (electricity, gas, steam and air-conditioning supply) and section E (water collection, treatment and supply, sewerage, waste collection and remediation activities).	Tier 2	Monthly	1M (SDDS)
2.5	Turnover index for other services by major division (excluding financial services and non-commercial services)	The index of turnover for other services measures the development of turnover over time in the services industries in value and volume with the exception of financial services (Section K of ISIC Rev. 4) and non-commercial services (intended to refer to Section O of ISIC Rev. 4).	Tier 2	Monthly	1M (SDDS)
2.6	New orders index for industry by major ISIC division (for those that work on order)	The index of new orders received (domestic and non-domestic) is a business cycle indicator which represents the nominal value of the new orders placed during a certain reference month in an industry. The purpose of the new-orders index is to serve as a leading indicator, i.e., to give a short-term indication of future developments in production and turnover of industries working to orders. New orders exclude VAT and other deductible taxes or the sale of capital assets but include all invoiced charges (for example, for transport and packaging, with the exception of packaging that might be returned after the delivery). The index typically covers industries working mainly on the basis of orders, in particular textile, pulp and paper, chemical, metal, capital goods and durable consumer goods industries.	Tier 3	Monthly	1M (SDDS)

2.7	New orders index for construction or building permits	The new orders for construction index provides a measure of the value of orders received by the unit classified to the construction industry during the reference period.	Tier 2	Monthly	1M (SDDS)
		As an alternative, compiling agencies can consider constructing indices for building permits, which are business cycle indicators providing information on the development of granted building permits.			
		Short-term statistics provide two types of indices for building permits. The so-called "dwelling index" simply reflects the evolution in terms of the number of dwellings. A second index, the "floor area index" reflects the development of the useful floor area for which the building permits are issued (where the useful floor area cannot be ascertained, an alternative size measure may be used).			
		The building permits index for the number of permits covers one-dwelling residential buildings and residential buildings with two or more dwellings but not residential buildings for communities (e.g., residences for the elderly) with the scope of Group 531 of the central product classification (CPC Ver. 2.1). The building permits index of useful floor area covers all types of residential buildings and also other buildings, for example hotels, shops, warehouses, industrial buildings, schools and hospitals.			
2.8	Commodity production, as relevant and other indicators of economic activity	Commodity production refers to the volume and value of production of the relevant products by an economic unit whether as primary or secondary production. Commodity production can be measured as total production or sold production.	Tier 3		6-12W (e-GDDS) 6W, 1M encouraged (SDDS)
		Total production refers to the actual production carried out during the survey time period that has been sold, put into stock (changes in inventories) or used for further processing.			
		Sold production refers to the production carried out at some point in time which has been sold (or invoiced) during the reference period.			
	Agricultural products	Production of agricultural products refers to the total production or sold production, in volume and value, of agricultural products which are defined by the scope of Division 01 (products of agriculture, horticulture and market gardening) of CPC Ver. 2.1.		Monthly	6-12W (e-GDDS) 6W, 1M encouraged (SDDS)
	Minerals	Production of minerals refers to the total production or sold production, in volume and value, of mineral products which are defined by the scope of Division 13 to 16 of CPC Ver. 2.1.		Monthly	6-12W (e-GDDS) 6W, 1M encouraged (SDDS)
	New car registrations/sales	Registration of new cars refers to the registration to authorities of new passenger cars, which cover motor cars and other motor vehicles principally designed for the transport of persons (except public-transport type vehicles, vehicles specially designed for travelling on snow, and golf cars and similar vehicles).		Monthly	6-12W (e-GDDS) 6W, 1M encouraged (SDDS)
	New commercial vehicle registrations/sales	Registration of new commercial vehicles refers to the registrations to authorities of new commercial cars, which include: public-transport type passenger motor vehicles (Subclass 49112 of CPC Ver.2.1), and road tractors and semi-trailer combinations (Subclass 49111 of CPC Ver.2.1). Trailers without motive power and farm tractors are excluded.		Monthly	6-12W (e-GDDS) 6W, 1M encouraged (SDDS)
	Tourist arrivals	Tourist arrivals refer to the arrivals for inbound tourism. Inbound tourism comprises the activities of a non-resident visitor within the country of reference on an inbound tourism trip. Arrivals measure the flows of international visitors to the country of reference. Each arrival corresponds to one inbound tourism trip. If a person visits several countries during the course of a single trip, his/her arrival in each country is recorded separately. Arrivals data should correspond to inbound visitors by including both tourists and same-day non-resident visitors.		Monthly	6-12W (e-GDDS) 6W, 1M encouraged (SDDS)

Table 1.1 (*continued*)
Data template for short-term statistics

Set 3: Prices					
3.1	Consumer price index	A consumer price index is an index number that measures changes in the prices of goods and services purchased or otherwise acquired by households, which households use directly, or indirectly, to satisfy their own needs and wants.	Tier 1	Monthly	1-2M (e-GDDS) 1M (SDDS)
3.2	Producer price index	A producer price index measures the rate of change in the prices of goods and services bought and sold by producers. There are two types of producer price indices. An output producer price index measures the rate of change in the prices of products sold as they leave the producer. An input producer price index measures the rate of change in the prices of the inputs of goods and services purchased by the producer.	Tier 1	Monthly	1-2M (e-GDDS) 1M (SDDS)
3.3	Import price index	An import price index measures changes in the prices of the goods and services provided by non-residents (rest of the world) and used by residents of a given economic territory (usually country).	Tier 1	Monthly	2-3W
3.4	Export price index	An export price index measures changes in the prices of the goods and services provided by the residents of a given economic territory (usually country) and used by non-residents (that is, the rest of the world).	Tier 1	Monthly	2-3W
Set 4: Labour market					

4.1	Unemployment	Persons in unemployment are defined as all those of working age who were not in employment, carried out activities to seek employment during a specified recent period and were currently available to take up employment given a job opportunity, where:
		
		a) "not in employment" is assessed with respect to the short reference period for the measurement of employment;
		b) to "seek employment" refers to any activity when carried out, during a specified recent period comprising the last four weeks or one month, for the purpose of finding a job or setting up a business or agricultural undertaking. This includes also part-time, informal, temporary, seasonal or casual employment within the national territory or abroad. Examples of such activities are:
		  i. arranging for financial resources, applying for permits, licences;
		  ii. looking for land, premises, machinery, supplies, farming inputs;
		  iii. seeking the assistance of friends, relatives or other types of intermediaries;
		  iv. registering with or contacting public or private employment services;
		  v. applying to employers directly, checking at worksites, farms, factory gates, markets or other assembly places;
		  vi. placing or answering newspaper or online job advertisements;
		  vii. placing or updating résumés on professional or social networking sites online;
		c) the point when the enterprise starts to exist should be used to distinguish between search activities aimed at setting up a business and the work activity itself, as evidenced by the enterprise's registration to operate or by when financial resources become available, the necessary infrastructure or materials are in place or the first client or order is received, depending on the context;
		d) "currently available" serves as a test of readiness to start a job in the present, assessed with respect to a short reference period comprising that used to measure employment:
		  i. depending on national circumstances, the reference period may be extended to include a short subsequent period not exceeding two weeks in total, so as to ensure adequate coverage of unemployment situations among different population groups.
			Tier 1	Quarterly	1Q (SDDS)

		Included in unemployment are:			
		a) future starters defined as persons "not in employment" and "currently available" who did not "seek employment", as specified in the above definition of unemployment, because they had already made arrangements to start a job within a short subsequent period, set according to the general length of waiting time for starting a new job in the national context but generally not greater than three months; b) participants in skills training or retraining schemes within employment promotion programmes who on that basis were "not in employment", not "currently available" and did not "seek employment" because they had a job offer to start within a short subsequent period generally not greater than three months; c) persons "not in employment" who carried out activities to migrate abroad in order to work for pay or profit but who were still waiting for the opportunity to leave.			
4.2	Unemployment rate	The unemployment rate gives the number of unemployed persons as a percentage of the labour force (total number of people employed plus unemployed)	Tier 1	Quarterly	1Q (SDDS)
4.3	Employment total and by economic activity	Persons in employment are defined as all those of working age who, during a short reference period, were engaged in any activity to produce goods or provide services for pay or profit. They comprise: a) employed persons "at work", i.e., who worked in a job for at least one hour; b) employed persons "not at work" due to temporary absence from a job, or to working-time arrangements (such as shift work, flexitime and compensatory leave for overtime). "For pay or profit" refers to work done as part of a transaction in exchange for remuneration payable in the form of wages or salaries for time worked or work done, or in the form of profits derived from the goods and services produced through market transactions, specified in the most recent international statistical standards concerning employment-related income. a) It includes remuneration in cash or in kind, whether actually received or not, and may also comprise additional components of cash or in-kind income. b) The remuneration may be payable directly to the person perform the work or indirectly to a household or family member. Employment by economic activity refers to the distribution of employed persons according to ISIC.	Tier 1	Quarterly	1Q (SDDS)
4.4	Hourly wage rate	Hourly wage rate refers to the basic remuneration received per hour. Wage rates should include basic wages, cost-of-living allowances and other guaranteed and regularly paid allowances, but exclude overtime payments, bonuses and gratuities, family allowances and other social security payments made by employers.	Tier 2	Quarterly	1Q (SDDS)

4.5	Hours of work	Hours actually worked is the time spent in a job for the performance of activities that contribute to the production of goods and/or services during a specified short or long reference period. Hours actually worked applies to all types of jobs (within and beyond the SNA production boundary) and is not linked to administrative or legal concepts.
		
		Hours actually worked measured within the SNA production boundary includes time spent directly on, and in relation to, productive activities, down time and resting time.
		
		a) "Direct hours" is the time spent carrying out the tasks and duties of a job. This may be performed in any location (economic territory, establishment, on the street, at home) and during overtime periods or other periods not dedicated to work (such as lunch breaks or while commuting).
		b) "Related hours" is the time spent maintaining, facilitating or enhancing productive activities and should comprise activities such as:
		  i. cleaning, repairing, preparing, designing, administering or maintaining tools, instruments, processes, procedures or the work location itself; changing time (to put on work clothes); decontamination or washing up time;
		  ii. purchasing or transporting goods or basic materials to/from the market or source;
		  iii. waiting for business, customers or patients, as part of working-time arrangements and/or that are explicitly paid for;
			Tier 2	Quarterly	1Q (SDDS)

Table 1.1 (*continued*)
Data template for short-term statistics

	iv. on-call duty, whether specified as paid or unpaid, that may occur at the work location (such as health and other essential services) or away from it (for example from home). In the latter case, it is included in hours actually worked depending on the degree to which persons' activities and movements are restricted. From the moment when called back for duty, the time spent is considered as direct hours of work; v. travelling between work locations, to reach field projects, fishing areas, assignments, conferences or to meet clients or customers (such as door-to-door vending and itinerant activities); vi. training and skills enhancement required by the job or for another job in the same economic unit, at or away from the work location. In a paid-employment job this may be given by the employer or provided by other units. c) "Down time", as distinct from "direct" and "related hours", is time when a person in a job cannot work due to machinery or process breakdown, accident, lack of supplies or power or Internet access, etc., but continues to be available for work. This time is unavoidable or inherent to the job and involves temporary interruptions of a technical, material or economic nature. d) "Resting time" is time spent in short periods of rest, relief or refreshment, including tea, coffee or prayer breaks, generally practiced by custom or contract according to established norms and/or national circumstances. Hours actually worked measured within the SNA production boundary excludes time not worked during activities such as: a) Annual leave, public holidays, sick leave, parental leave or maternity/paternity leave, other leave for personal or family reasons or civic duty. This time not worked is part of absence from work hours; b) Commuting time between work and home when no productive activity for the job is performed; for paid employment, even when paid by the employer; c) Time spent in educational activities distinct from the activities covered in training and skills enhancement required by the job or for another job in the same economic unit, at or away from the work location; for paid employment, even when authorized, paid or provided by the employer; d) Longer breaks distinguished from short resting time when no productive activity is performed (such as meal breaks or natural repose during long trips); for paid employment, even when paid by the employer. Hours actually worked measured beyond the SNA production boundary includes time spent directly on, and in relation to, productive activities (such as services produced and consumed within the same household and activities of volunteer workers in households that produce services for own final use by the household); down time; and short resting time. Hours actually worked measured beyond the SNA production boundary excludes time not worked during activities such as civic duty and educational activities other than the training required for the job.				

Set 5: External sector					
5.1	Exports and imports of goods	Exports of goods comprise goods leaving the statistical territory of a country. In the general trade system, the definition of the statistical territory coincides with its economic territory. Imports of goods are goods which add to the stock of material resources of a country by entering its economic territory. The special trade system is in use when the statistical territory comprises only a particular part of the economic territory, so that certain flows of goods are not included in either import or export statistics of the compiling country. Countries may apply various definitions of special trade.	Tier 1	Monthly	8-12W (e-GDDS) 8W, 4-6W encouraged (SDDS)
5.2	Current account balance	The current account balance shows the difference between the sum of exports and income receivable and the sum of imports and income payable (exports and imports refer to both goods and services, while income refers to both primary and secondary income).	Tier 2	(SDDS) Quarterly (e-GDDS) encouraged	2Q (e-GDDS)
5.3	International investment position (IIP)	The international investment position is a statistical statement that shows at a point in time the value of financial assets of residents of an economy that are claims on non-residents or are gold bullion held as reserve assets and the liabilities of residents of an economy to non-residents.	Tier 2	Quarterly	1Q (SDDS)

5.4	Official reserve assets	Official reserve assets are those external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes (such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing).	Tier 1	Monthly	1-4W, 1W encouraged (e-GDDS) 1W (SDDS)
		Official reserve assets must be foreign currency assets and assets that actually exist. Potential assets are excluded. Underlying the concept of reserve assets are the notions of "control," and "availability for use," by the monetary authorities.			
		Official reserve assets are composed of the following:			
		Monetary gold			

		Gold bullion
		  Unallocated gold accounts
		  of which: Monetary gold under swap for cash collateral			

		Special drawing rights			
		Reserve position in the IMF			
		Other reserve assets			

		Currency and deposits
		  Claims on monetary authorities
		  Claims on other entities
		  Securities
		    Debt securities
		      Short-term
		      Long-term
		  Equity and investment fund shares or units
		  of which: Securities under repurchase agreements for cash collateral [b]			

		Financial derivatives Other claims			
5.5	External debt (by sector, maturity and currency)	Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of principal and/or interest by the debtor at some point(s) in the future and that are owed to non-residents by residents of an economy.	Tier 2	Quarterly	3-6M (e-GDDS) 1Q (SDDS)
		Gross external debt can be disaggregated by sector, maturity or currency.			
Set 6: Financial corporations sector					
6.1	Central bank net foreign assets	Net foreign assets of the central bank are the sum of foreign assets held by monetary authorities less their foreign liabilities.	Tier 1	Monthly	2W (SDDS)
6.2	Central bank domestic lending	Central bank domestic lending is the sum of net claims of the central bank on the central government and its claims on other sectors of the domestic economy.	Tier 1	Monthly	2W (SDDS)
6.3	Central bank reserve money	Central bank reserve money is defined as the currency in circulation outside the central bank, other depository corporations (ODCs) deposit holdings at the central bank and those deposits of money holding-sectors at the central bank that are also included in broad money.	Tier 1	Monthly	1-2M (e-GDDS) 2W (SDDS)
6.4	Depository corporations' net foreign assets	Net foreign assets of depository corporations are the sum of foreign assets held by depository corporations less their foreign liabilities. Depository corporations consist of all resident financial corporations and quasi-corporations, whose principal activity is financial intermediation and which have liabilities in the form of deposits or financial instruments such as short-term certificates of deposit, which are close substitutes for deposits in mobilizing financial resources and which are included in measures of money broadly defined. Depository corporations comprise the central bank, deposit-taking corporations except the central bank and money-market funds.	Tier 1	Monthly	1-3M (e-GDDS) 1M (SDDS)
		The depository corporations subsector includes the central bank and other depository corporations.			
6.5	Depository corporations' domestic lending	Net domestic lending of depository corporations is the sum of net claims of depository corporations on the central government and their claims on other sectors of the domestic economy.	Tier 1	Monthly	1M (SDDS)

Table 1.1 (*continued*)
Data template for short-term statistics

6.6	Depository corporations' broad money liabilities	Broad money is the sum of all financial instruments held by money-holding sectors that are (a) a medium of exchange widely used in an economy, or (b) close substitutes for the medium of exchange that are reliable store of value. Depository corporations' broad money liabilities include domestic currency, transferable deposits, other deposits, money market funds' shares and debt securities.	Tier 1	Monthly	1M (SDDS)
6.7	Other financial corporations' balance sheet, assets and liabilities by sector	A balance sheet for other financial corporations is a statement, drawn up in respect of a particular point in time, of the values of assets owned and of the liabilities owed by these corporations. Other financial corporations comprise non-MMF investment funds, other financial intermediaries except insurance corporations and pension funds, financial auxiliaries, captive financial institutions and money lenders, insurance corporations and pension funds.	Tier 2	Quarterly	1M (SDDS)
6.8	Financial corporations' profits	Profit is the difference between revenue and cost and expenses. Profits, which can be approximated by entrepreneurial income in national accounts, are mainly used to pay taxes and remunerate capital in the form of interest and dividends paid to shareholders. Financial corporations' profits refer to the aggregate profits of all corporations in the financial corporations sector. The financial corporations sector comprises all resident corporations that are principally engaged in providing financial services, including insurance and pension funding services, to other institutional units. It also includes quasi-corporations consisting of sole proprietors and unincorporated partnerships.	Tier 2	Quarterly	1Q
6.9	Financial corporations' debt	Financial corporations' debt refers to all liabilities that require payment(s) of interest and/or principal by the financial corporations sector to the creditor at a date or dates in the future.	Tier 2	Quarterly	1Q
6.10	Others, as relevant: non-performing loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	A loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons (such as a debtor filing for bankruptcy) to doubt that payments will be made in full. This definition of a non-performing loan is to be interpreted flexibly, taking into account national conventions on when a loan is deemed to be non-performing. A capital adequacy ratio is an analytical construct in which regulatory capital is the numerator and risk-weighted assets are the denominator.	Tier 3	Monthly	1Q
Set 7: General government sector					
7.1	Revenue	Revenue is an increase in net worth resulting from a transaction. For general government units, there are four main sources of revenue: compulsory levies in the form of taxes and certain types of social contributions, property income derived from the ownership of assets, sales of goods and services, and other transfers receivable from other units.	Tier 1	Quarterly	2Q, 1Q encouraged (SDDS)
7.2	Expense	Expense is a decrease in net worth resulting from a transaction. The major types of expense are compensation of employees, use of goods and services, consumption of fixed capital, interest, subsidies, grants, social benefits, and other expense.	Tier 1	Quarterly	2Q, 1Q encouraged (SDDS)
7.3	Net operating balance	The net operating balance is a summary measure of the ongoing sustainability of government operations. It is equal to total revenue minus total expense, and it reflects the total change in net worth due to transactions. It is comparable to the national accounting concept of saving plus net capital transfers receivable. It should be noted that the net operating balance as defined here excludes gains and losses resulting from changes in price levels and other changes in the volume of assets.	Tier 1	Quarterly	2Q, 1Q encouraged (SDDS)
7.4	Net acquisition of non-financial assets	Net acquisition of non-financial assets is defined as the acquisition minus the disposal of non-financial assets. Non-financial assets are stores of value and provide benefits either through their use in the production of goods and services or in the form of property income. Unlike financial claims, non-financial assets have no counterpart liability—that is, the owner of the non-financial asset does not have a claim on another institutional unit	Tier 2	Quarterly	2Q, 1Q encouraged (SDDS)

7.5	Expenditure	Expenditure is the sum of expense and the net investment in non-financial assets. This aggregate is not influenced by the level of consumption of fixed capital and is therefore suitable for international comparisons between countries even if they cannot reliably measure consumption of fixed capital.	Tier 2	Quarterly	2Q, 1Q encouraged (SDDS)
7.6	Net lending/net borrowing (= Revenue Expenditure)	Net lending/net borrowing is defined as the net acquisition of financial assets minus the net incurrence of all liabilities from transactions. Net lending (+)/borrowing (–) is a summary measure indicating the extent to which government is either putting financial resources at the disposal of other sectors in the economy or abroad, or utilizing the financial resources generated by other sectors in the economy or from abroad. It therefore may be viewed as an indicator of the financial impact of government activity on the rest of the economy and the rest of the world. Net lending/net borrowing is also a balancing item which can be calculated as the net operating balance minus the net investment in non-financial assets.	Tier 2	Quarterly	2Q, 1Q encouraged (SDDS)
7.7	Gross debt	Gross debt of the general government sector consists of all liabilities that require payment(s) of interest and/or principal by the general government sector to the creditor at a date or dates in the future.	Tier 2	Quarterly	4M (SDDS)
Set 8: Household sector					
8.1	Household disposable income	Household disposable income is the sum of household final consumption expenditure and saving (minus the adjustment for the change in pension entitlements). It also corresponds to the sum of wages and salaries, mixed income, net property income, net current transfers and social benefits other than social transfers in kind, less taxes on income and wealth and social security contributions paid by employees (including social contributions payable by employers), the self-employed and the unemployed. Household disposable income can be seen as the maximum amount that a household can afford to spend on consumption of goods or services without having to reduce its financial or non-financial assets or by increasing its liabilities.	Tier 2	Quarterly	1Q (SDDS)
8.2	Household saving	In the national accounts, household saving is obtained by subtracting household consumption expenditure from household disposable income (adjusted for the change in pension entitlements). Household saving is one of the domestic sources of funds to finance capital investment, which is a major impetus for long-term economic growth.	Tier 2	Quarterly	1Q (SDDS)
8.3	Household debt	Household debt is defined as all liabilities that require payment(s) of interest and/or principal by the debtor household to the creditor at a date or dates in the future.	Tier 2	Quarterly	1Q (SDDS)
8.4	Others, as relevant: household debt service and principal payments and defaults on home mortgages, credit card debt and car loans etc.	Household debt service refers to payments made by households in respect of both principal and interest. Actual debt service is the set of payments actually made to satisfy a debt obligation, including principal, interest and any late payment fees. Scheduled debt service is the set of payments, including principal and interest that is required to be made through the life of the debt. Household principal payments are all other payments by the household debtor to the creditor that reduce the principal amount outstanding. Defaults on home mortgages, credit card debt and car loans, etc. refer to the failure of households to meet a debt obligation payment, either principal or interest on these loans. A payment that is overdue or in arrears is technically "in default," since by virtue of non-payment the borrower has failed to abide by the terms and conditions of the debt obligation. In practice, the point at which a debt obligation is considered "in default" will vary.	Tier 3	Quarterly	1Q (SDDS)
Set 9: Non-financial corporations sector					
9.1	Non-financial corporations' profits	Profit is the difference between revenue and cost and expenses. Profits, which can be approximated by entrepreneurial income in national accounts, are mainly used to pay taxes and remunerate capital in the form of interest and dividends paid to shareholders. Non-financial corporations' profits refer to the aggregate profits of all corporations in the non-financial corporations sector. The non-financial corporations sector includes all private and public enterprises that produce goods and/or provide non-financial services to the markets. It also includes quasi-corporations consisting of sole proprietors and unincorporated partnerships.	Tier 3	Quarterly	1Q (SDDS)

Table 1.1 (*continued*)
Data template for short-term statistics

9.2	Non-financial corporations' debt	Non-financial corporations' debt refers to all liabilities that require payment(s) of interest and/or principal by the non-financial corporations sector to the creditor at a date or dates in the future.	Tier 3	Quarterly	1Q (SDDS)
9.3	Others, as relevant: net foreign exchange exposure to equity and the number of applications for protection from creditors, etc.	Net foreign exchange exposure to equity measures non-financial corporations' exposure to foreign currency risk compared with their capital. It is an indicator of sensitivity to market risk, which is intended to show exposure of non-financial corporations to exchange rate risk. It measures the mismatch of foreign currency asset and liability positions of non-financial corporations to assess the vulnerability to exchange rate movements. It is calculated by using non-financial corporations' net foreign exchange exposure for on-balance-sheet items as the numerator and capital and reserves as the denominator. The number of applications for protection from creditors is a simple numerical addition of those non-financial corporations that have filed for protection from bankruptcy during the period. It is a measure of bankruptcy trends, but it is influenced by the quality and nature of bankruptcy and related legislation.	Tier 3	Quarterly	1Q
Set 10: Financial market					
10.1	Interest rates, as relevant short and long term money and bond market rates	Interest rate is defined as the price paid by the borrower for the use of funds saved by the lender and the compensation to the lender for deferring expenditures. This compensation comprises two elements, namely a payment equal to the loss of purchasing power of the principal during the term of the loan and a balance that represents the real interest accruing to the lender. Interest rates are the amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets. Short-term interest rates are the rates for short-term debt securities, including those securities that have an original maturity of one year or less. Long-term interest rates are the rates for long-term debt securities, including those securities that have an original maturity of more than one year.	Tier 1	Monthly	No timeliness recommendation is presented given that the data are widely available from private sources.
10.2	Exchange rates, as relevant, spot and forward markets	An exchange rate is the price of one country's currency expressed in another country's currency. Most commonly, exchange rates are expressed as the number of units of domestic currency that will purchase one unit of foreign currency (for example, units of currency per United States dollar). An exchange rate may also be defined as the inverse: the number of units of foreign currency that one unit of domestic currency will purchase. Exchange rates are classified into three broad categories, reflecting the role of the authorities in the determination of the exchange rates and/or the multiplicity of exchange rates in a country: • market rate is used to describe exchange rates determined largely by market forces; • official rate: is used to describe the exchange rate determined by authorities; • for countries maintaining multiple exchange arrangements, the rates may be labeled principal rate, secondary rate and tertiary rate. Exchange rates may be expressed as period average rates or end of period rates. A spot rate is the exchange rate of one currency for another for immediate delivery. A forward exchange rate is the exchange rate in contract for receipt of and payment for foreign currency at a specified date, usually for 30 days, 90 days or 180 days in the future, at a stipulated current or "spot" price.	Tier 1	Monthly	No timeliness recommendation is presented given that the data are widely available from private sources.
10.3	Nominal and real effective exchange rate	A nominal effective exchange rate is the exchange rate of the domestic currency vis-à-vis other currencies weighted by their share in either the country's international trade or payments. A real effective exchange rate represents a nominal effective exchange rate adjusted for relative movements in national price or cost indicators of the home country and selected countries. Real effective exchange rates take account of price-level differences between trading partners. Movements in real effective exchange rates provide an indication of the evolution of a country's aggregate external price competitiveness.	Tier 1	Monthly	2M

10.4	Stock market indicators	Share price indices are prices of common shares of companies traded on national or foreign stock exchanges. They are targeted to be national, all-share or broad, price indices and use the closing daily values for the monthly data, normally expressed as simple arithmetic averages of the daily data, although in some cases mid-month or end-of-month quotations are included. All reported indices are adjusted for changes in quoted nominal capital of companies. Indices are, in general, base-weighted arithmetic averages with market value of outstanding shares as weights.	Tier 1	Monthly	No timeliness recommendation is presented given that the data are widely available from private sources.
10.5	Others, as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	Spreads between lending and deposit rates (SLDR) can serve as indicators of trends in deposit takers' net interest income, and hence of profitability. There is no standard definition of reference or representative rates. To measure the SLDR, the calculation of the weighted average of all lending and deposit interest rates on loans and deposits (excluding loans and deposits among deposit takers) during a reference period in the portfolio of resident deposit takers is required. The interest rate spread could also be calculated on a domestically controlled, cross-border consolidated basis, thus providing an indication of profitability, but it would be reflecting activity in different markets. Using loan and deposit amounts as weights, the spread between the weighted average lending and deposit rates gives the overall interest spread (in basis points) between loans and deposits. Interbank rates measure the cost of funds to deposit takers in the domestic interbank market—the cost of borrowing the excess reserves of other deposit takers. The source of these data is usually interbank dealers or brokers. An increasing spread between the highest and lowest interbank rates (SIR) could indicate an increasing risk premium being charged on the deposit taker facing the highest rate—that is, deposit takers would themselves be perceiving an increasing risk of lending within the banking system.	Tier 3	Monthly	No timeliness recommendation is presented given that the data are widely available from private sources.
Set 11: Real estate market					
11.1	Residential property price index	The residential property price index is an index number measuring the rate at which the prices of residential properties are changing over time. This index is a key statistic not only from the individual household's perspective, but also, from a broader perspective, for analysts, policymakers, and financial institutions who follow trends in house prices to expand their understanding of real estate and credit market conditions as well as to monitor the impact on economic activity, and financial stability and soundness.	Tier 2	Quarterly	1Q (SDDS Plus)
11.2	New house sales	New house sales record the sales of newly constructed residences (in numbers and transaction values) in the country during a particular period.	Tier 3	Quarterly	1Q
11.3	Existing house sales	Existing house sales data measure the sales of existing residences (in numbers and transaction values) in the country during a particular period.	Tier 3	Quarterly	1Q
Set 12: Economic sentiment					
12.1	Consumer confidence	A consumer confidence indicator measures consumers' perceptions of their personal current economic/financial conditions and that of the overall economy, as well as their expectations for the near future. Consumer confidence indicators are based on consumer tendency surveys which collect (mainly) qualitative responses from consumers on the past, current and future economic situation.	Tier 2	Monthly	1M (SDDS)
12.2	Business confidence	A business confidence indicator monitors the current and future business situation and it can be used as a leading indicator for predicting short-term developments in a country. It is based on business tendency surveys which collect (mainly) qualitative responses from businesses to questions about their firm-specific past, current and future economic situation (in terms of production levels, orders, etc. Business confidence indicators are calculated for the various segments of the economy, such as for manufacturing, construction, retail trade, services, etc., based on possibly different questions of business tendency surveys. They are then aggregated to derive a business confidence indicator for the whole economy	Tier 2	Monthly	1M (SDDS)

12.3	Composite business cycle indicators	Business cycle indicators are a large family of indicators measuring different aspects of economic activity. They have different timings, serve various purposes, are based on a variety of statistical/econometric methods and rely on a large set of data, stemming from quantitative statistical variables to qualitative ones to financial indicators etc. They are classified into leading, coincident and lagging indicators according to their characteristics to anticipate changes in the business cycle (leading indicators), to assess the current status of the business cycle (coincident indicators) and to confirm the business cycle movement (lagging indicators). Various approaches exist for the selection of the components for the composite business cycle indicators.			
12.3.1	Leading Indicator	Leading indicators are those anticipating the future pattern of the business cycle. They are series that tend to shift direction in advance of changes in economic activity or the reference cycle.	Tier 3	Monthly	1M (SDDS)
12.3.2	Coincident Indicator	Coincident indicators are those describing the current pattern of the economic situation. They are broad series that measure aggregate economic activity; thus, they define the business cycle.	Tier 3	Monthly	1M (SDDS)
12.3.3	Lagging Indicator	Lagging indicators are intended to reproduce today the past pattern of the economy. They are used to confirm that a cyclical phase is over and that the next phase has begun.	Tier 3	Monthly	1M (SDDS)

Abbreviations: M=month(s); Q=quarter(s); W=week(s)

[a] The minimum requirement data set (MRDS) is defined in reports of the Intersecretariat Working Group on National Accounts to the Statistical Commission (see E/CN.3/2001/8 (https://unstats.un.org/unsd/statcom/32nd-session/documents/doc01/2001-8-E.pdf).

[b] In the IIP only.

C.2. Categories of the data template

1.9.   This section describes each category of the data template for short-term statistics in terms of its scope and coverage, and the underlying analytical and statistical frameworks.

a)   Set 1: National accounts

Scope and coverage

1.10.   This category of the data template covers the quarterly national accounts. In particular, it includes the first accelerated estimate of GDP and its subsequent full releases with breakdown by expenditure components, income and output components by economic activity, and the quarterly institutional sector accounts covering the full sequence of accounts and balance sheets. Many of the sectoral statistics in this category are also reflected in the other categories of the data template, including the external sector, financial corporations sector, general government sector, households sector and non-financial corporations sector. However, the main difference between the sectoral statistics in this category and the other categories is that the former are produced within an integrated national accounts framework, while the latter can be separately compiled without an integrated national accounts framework. The first estimate of GDP pertains to the accelerated release of the quarterly GDP as an aggregate measure of production. If possible, seasonally adjusted and non-seasonally adjusted current price and volume measures of quarterly GDP and its breakdown should be available.

Analytical framework

1.11.   The main analytical purpose of quarterly national accounts (QNA) time series is to offer an overview of recent economic and financial trends that is more timely than annual national accounts and more comprehensive than individual short-term statistics. These time series meet the analytical need to study dynamic relationships between macroeconomic aggregates in a coherent SNA framework. In particular, quarterly national accounts meet the basic data needs for business cycle analysis and for econometric modelling, whereby business cycle analysis focuses on the identification of turning points through trend-cycle analysis and the analysis of

dynamic relationships between economic and financial variables such as coincidences, leads and lags and econometric modelling extends to forecasting of variables in future reference periods.

Statistical framework

1.12.   Quarterly national accounts are built on a foundation of timely and accurate monthly and quarterly source data that directly forms building blocks of a high proportion of national accounts aggregates. From the first to the subsequent releases of GDP and sector accounts, it is encouraged to maintain the same collection and compilation methodology to minimize unnecessary revisions. The use of econometric methods and indirect behavioural relationships should not be considered as a substitute for data collection and are out of the scope of quarterly national accounts compilation. As a guide, the breakdown of the QNA should be based on the requirement for the minimum required data set for the scope of the implementation of the 2008 SNA.

b)   Set 2: Production and turnover

Scope and coverage

1.13.   This category covers production indices, turnover indices, new orders indices and production of major commodities (as relevant) and other statistics of economic activity. Several statistics, such as industrial turnover and new orders can be subdivided between domestic and non-domestic.

Analytical framework

1.14.   The production and turnover statistics are used for monitoring economic trends and the impact of their fluctuations on the rest of the economy. They are generally released with a monthly frequency, casting light on recent developments in production and sales in industry, construction, trade and other services. This distinction is extremely useful for analytical purposes as it provides valuable information on the short-term development of distinct markets, especially close to turning points.

1.15.   Whereas the production index provides information on trends in actual monthly production output (irrespective of what happens in sales), turnover is used to assess current trends in sales and thus demand. Some short-term statistics, such as new orders, have a forward-looking property useful for assessing future movement of the economy through leading indicators. For example, a building permit is an authorization to commence work on a construction project, signaling the final stage before construction begins. This indicator signals expected performance of the construction sector's activity in the near future. However, this indicator should be used with caution because the construction based on those permits might be delayed, or the permits might remain unused or are withdrawn. In most cases, the data are not adjusted for the withdrawal of permits. Moreover, double counting may occur if the same construction project remains idle and is reinitiated with the issuance of a new permit if the previous permit has expired.

1.16.   Also at more disaggregated levels of ISIC, the production and turnover indices render further insights in the dynamic relationship between different industries and types of products these industries produce, such as intermediate, consumption and capital goods. While each of the production and turnover statistics and their breakdowns provide valuable information on the performance of the real economy, it is with their integration in a comprehensive and coherent framework of the national accounts that the dynamic relation between these short-term statistics is understood and used in the compilation of macroeconomic statistics, such as the quarterly national accounts.

Statistical framework

1.17.   Production, turnover and new order statistics are often built on a foundation of timely and accurate monthly source data that directly cover a high proportion of the totals. Ideally, the periodicity of production indices is monthly, with an encouraged timeliness of the first estimate at 30 days after the reference period. With these indices being an important input for the first estimate of GDP, the acceleration of the release of GDP estimates depends critically on the timing of the release of the production indices. It is also recommended that building permits be available on a monthly basis with a recommended timeliness of one month after the reference period.

c)   Set 3: Prices

Scope and coverage

1.18.   This category focuses on the consumer price index (CPI), the producer price index (PPI), and import and export price indices.

1.19.   The CPI focuses on household consumption of goods and services and provides a general measure of changes in prices of consumer goods and services acquired, used or purchased by households. The operational target for most CPIs is to measure the change over time in the total value of some specified basket of consumption goods and services purchased or acquired by households in some specified period of time.

1.20.   The producer price index (PPI) includes all domestic goods- and services-producing establishments. Traditionally, the PPI has been compiled as a measure of price change for the goods-producing sectors of the domestic economy. These include agriculture, forestry, fishing, mining, manufacturing, and public utilities. The services sectors that are in scope for a PPI vary across countries. Many countries are interested in creating a corporations services price index. This restricts coverage to business services, including professional services, finance, insurance, real estate, accommodation and food, information, communications and the transportation of goods. A more expansive definition could include all services transactions that are in intermediate demand.

1.21.   The producer price indices can refer to indices related to inputs or outputs of the production process. The PPI measures for outputs pertain to the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. These are often called "factory gate prices". The PPI measures for inputs pertain to the average change over time in the purchasers' prices paid by domestic producers for their intermediate inputs, which can be differentiated between the domestic products and imported products.

1.22.   The import price index is an economic indicator that measures change in the prices of goods and materials imported. This index can be completed by the export price index that measures change in the prices of goods and materials exported. Both import and export price indices for services can also be computed. This is done in a number of countries, such as New Zealand and the United States of America.

Analytical framework

1.23.   The CPI is an important economic indicator of price changes. The index is used in many ways by the government, businesses, and society in general. The index can affect interest rates, tax allowances, wages, state benefits, pensions, maintenance, contracts and many other payments. It also shows the impact of inflation on family budgets. The index is also used as one of the key variables for monetary policy in defining price stability and targeting an inflation rate.

1.24.   The PPI is used in monitoring and measuring inflation at different stages of production. Moreover, many detailed PPIs are used in price variation clauses in trading contracts, or for internal current cost accounting. Some PPIs are compiled for stocks and fixed assets held by various industries. These PPIs assist company accountants in revaluing assets from historic to replacement cost terms. The PPI for corporate services is a relatively new development, which provides a reliable means of measuring and monitoring inflation for business-to-business services.

1.25.   The import and export price indices are valuable inputs into the processes of measuring inflation, formulating fiscal and monetary policy, forecasting future prices, conducting elasticity studies, measuring the competitiveness of an economy, analysing exchange rates, negotiating trade contracts and analysing import prices by locality of origin.

Statistical framework

1.26.   In many countries, both the all-items CPI and PPI as an aggregate are prepared on a monthly basis and released within a short period after the reference month. These indices can be presented as year-to-year and month-to-month changes, as annual indices and annual percentage change. The same typically applies to the import and export price indices.

1.27.   Some countries prepare accelerated first estimates for the CPI based on early price information relating to the reference month. The first estimation procedure combines historical information with partial information on price developments in the most recent months to give a total index for all items without further breakdown.

d)   Set 4: Labour market

Scope and coverage

1.28.   This category contains unemployment, unemployment rate, employment, hourly wage rate and hours of work. The nineteenth ICLS revised the definition of unemployment and employment as follows. The unemployed are defined as all those of working age who were not in employment, carried out activities to seek employment during a specified recent period (seven days or one week) and were currently available to take up employment given a job opportunity, where:

a)   "not in employment" is assessed with respect to the short reference period for the measurement of employment;

b)   to "seek employment" refers to any activity when carried out, during a specified recent period comprising the last four weeks or one month, for the purpose of finding a job or setting up a business or agricultural undertaking. This includes also part-time, informal, temporary, seasonal or casual employment, within the national territory or abroad. Examples of such activities are:

   i.   arranging for financial resources, applying for permits, licences;

   ii.   looking for land, premises, machinery, supplies, farming inputs;

   iii.   seeking the assistance of friends, relatives or other types of intermediaries;

   iv.   registering with or contacting public or private employment services;

   v.   applying to employers directly, checking at worksites, farms, factory gates, markets or other assembly places;

   vi.   placing or answering newspaper or online job advertisements;

   vii.   placing or updating résumés on professional or social networking sites online;

c) the point when the enterprise starts to exist should be used to distinguish between search activities aimed at setting up a business and the work activity itself, as evidenced by the enterprise's registration to operate or by when financial resources become available, the necessary infrastructure or materials are in place or the first client or order is received, depending on the context;

d) "currently available" serves as a test of readiness to start a job in the present, assessed with respect to a short reference period comprising that used to measure employment:

i. depending on national circumstances, the reference period may be extended to include a short subsequent period not exceeding two weeks in total, so as to ensure adequate coverage of unemployment situations among different population groups.

National definitions of unemployment may differ from the recommended international standard definition. The national definitions used vary from one country to another as regards, inter alia, age limits, reference periods, criteria for seeking work, treatment of persons temporarily laid off and of persons seeking work for the first time.

1.29.   The unemployment rate is calculated as the number of persons who are unemployed during the reference period, given as a percentage of the total number of employed and unemployed persons (i.e., the labour force) in the same reference period.

1.30.   The employed are defined as all those of working age who, during a short reference period (seven days or one week), were engaged in any activity to produce goods or provide services for pay or profit. They comprise:

a) employed persons "at work", i.e., who worked in a job for at least one hour;

b) employed persons "not at work" due to temporary absence from a job, or to working-time arrangements (such as shift work, flexitime and compensatory leave for overtime).

1.31.   One way to measure the cost of employed labour is through an hourly wage rate. The hourly wage rate relates to the hourly gross remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as annual vacation, other type of paid leave or holidays. It excludes employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. It also excludes severance and termination pay. Hours of work statistics complement employment counts and can provide a more precise measure of labour input. This indicator relates to the time that persons in employment spend directly on, and in relation to, productive activities, down time and resting time during a specified time reference period. Hours of work thus include (a) "direct hours", or the time spent carrying out the tasks and duties of a job; (b) "related hours", or the time spent maintaining, facilitating or enhancing productive activities; (c) "down time", or time when a person in a job cannot work owing to machinery or process breakdown, accident, lack of supplies or power or Internet access; and (d) "resting time", or time spent in short periods of rest, relief or refreshment, including tea, coffee or prayer breaks, generally practised by custom or contract according to established norms and/or national circumstances.

1.32.   Increasingly, the labour market developments are monitored through additional statistics such as job vacancies.

Analytical framework

1.33.   Labour market data comprise a key set of statistics for the assessment of cyclical developments and macroeconomic and social policymaking. Both the employment and wage data play an essential role in the compilation of key statistics for the analysis of long-term economic equilibria and the movements around it, such as the non-accelerating inflation rate of unemployment (NAIRU) and Phillips curve (the relationship between inflation and unemployment).

1.34.   Unemployment as an indicator is a lagging indicator in the business cycle of economic activity, which could be further broken down in structural and short-term unemployed. It is closely watched because the indicator signals the build-up of fiscal pressures in the near future and over the long term.

1.35.   The data can be broken down by various attributes such as gender and age. The data on employment and unemployment may be presented in thousands of persons. Moreover, percentage changes to show the evolution of this aggregate are presented. Data are disseminated on a monthly basis either seasonally or non-seasonally adjusted.

Statistical framework

1.36.   Labour market data are disseminated on a monthly basis in advanced economies either seasonally or non-seasonally adjusted. In less advanced economies, such data may be lacking or, if available, are disseminated on a quarterly or less frequent basis.

e)   Set 5: External sector

Scope and coverage

1.37.   The monitoring of the transactions and positions held vis-à-vis the rest of the world is represented by the current account balance in the balance of payments and the international investment position.

1.38.   The balance of payments is a statistical statement that summarizes transactions between residents and non-residents. It consists of the goods and services account, the primary income account, the secondary income account, the capital account and the financial account. The current account balance shows the difference between the sum of exports and income receivable and the sum of imports and income payable (exports and imports refer to both goods and services, while income refers to both primary and secondary income). The international investment position (IIP) is a statement that shows at a point in time the value of financial assets of residents of an economy and the liabilities of residents of an economy to non-residents.

1.39.   These two comprehensive statements are complemented by a more detailed account of transactions and positions in official international reserves and external debt.

Analytical framework

1.40.   The international accounts provide an integrated framework for the analysis of an economy's international relationships for monitoring its international economic and financial performance, exchange rate policy, reserves, and external debt management. With the emerging interconnected product and financial markets, the timely monitoring and reporting of international financial transactions and positions have become indispensable tools in assessing the external vulnerability at the national and global level.

1.41.   On the current account of the balance of payments, the components and their summary measures are of critical importance for the monitoring of exports and imports of goods and services and the returns on the movement of labour and financial resources. This is achieved

through the measurement of remittances, interest, dividend and reinvested earnings. Together with the official flows of international assistance through grants, the trends of these flows provide a timely monitor of the transmission mechanisms and vulnerabilities for the global product, labour and capital markets.

1.42.   The understanding of the financial transmission mechanisms and vulnerabilities are determined by the assets and liabilities of the international investment position either presented in a financial instruments split like monetary gold, currency and deposits, debt securities, loans, etc. as in the 2008 SNA, or by functional categories like direct investment, portfolio investment, financial derivatives, other investment and reserve assets as in BPM6. Tracking direct investment relationships assists in understanding the developments and exposures in production, trade and finance through external control and influence. The monitoring of the details for the international reserve assets have the distinct motive to meet balance of payments financing needs and ability to undertake market interventions to influence the exchange rate.

1.43.   For analytical purposes, the external debt is reported for public and publicly guaranteed debt and private debt by original short-term and long-term maturity and by remaining maturity. The latter elaboration provides an indication when payments will fall due, and therefore of potential liquidity risks facing the economy.

1.44.   Particularly important is the debt schedule of payments with further attention for those payments due in the near term. A debt-service payment schedule projects payments on the outstanding gross external debt position at the reference date. This schedule assists in the assessment of liquidity risk from bunching of payments regardless of the original maturity of the debt instruments. Early warning of such bunching might allow countervailing action to be taken.

1.45.   In the absence of complete data to compile monthly balance of payments statistics, on a short-term basis, the monitoring of monthly merchandise trade data can serve as a quick tracking category for the performance of the external sector in terms of the cross-border physical movement of the goods. As such it is another frequent and more detailed indicator of developments in the current account of the balance of payments.

Statistical framework

1.46.   The quarterly release of balance of payments with a timeliness of one quarter after the reference period is prescribed. For countries with less developed statistical systems, these recommendations might not be met, but they should be encouraged to pursue a periodicity on an annual basis with a release of two quarters after the reference year. However, quarterly data are strongly encouraged, within two quarters after the end of the reference quarter. For the international investment position, a quarterly release is preferred with a timeliness of one quarter after the reference period.

1.47.   The official reserve assets and the template on international reserves can follow monthly periodicity with a timeliness of one week after the reference period because of the availability of monthly source data from the central bank survey. Both the periodicity and timeliness of the official reserve assets and the template on international reserves can be increased to weeks for those countries that compile and report the central bank data at higher frequency.

1.48.   With respect to the external debt data category, the dissemination of quarterly data with a one-quarter lag for SDDS subscribers, covering four sectors (general government, monetary authorities, the banking sector and other) becomes feasible with the improved monitoring of debt. Furthermore, for analytical purposes these quarterly data are to be disaggregated by original maturity—short- and long-term—by financial instrument and by private and public and publicly guaranteed debt.

1.49.   Progressively, countries should disseminate supplementary information on future debt-service payments, in which the principal and interest components are separately identified, for instance twice yearly for the first four quarters and the following two semesters ahead, with a lag of one quarter. The data could be further broken down by sector—general government, monetary authorities, the banking sector and other sectors. The dissemination of a domestic/foreign currency breakdown of external debt with quarterly periodicity and timeliness is also encouraged.

1.50.   Total merchandise import and total merchandise export data can be disseminated with a monthly periodicity with an encouraged timeliness of four to six weeks in the case of SDDS subscribers. Dissemination of imports and those of exports by major trading partner and by product group is encouraged, even with a slightly longer lag if needed. However, merchandise trade data tend to differ from the corresponding data reported in the national accounts and balance of payments owing to conceptual differences such as coverage, time of recording, valuation, classification of goods transactions and definition of change of ownership.

f)   Set 6: Financial corporations sector

Scope and coverage

1.51.   This category consists of monetary and financial statistics of financial corporations. Monetary statistics cover the stock positions and flows of the assets and liabilities of the financial corporations in an economy. Balance sheets of the central bank, other depository corporations and other financial corporations are combined, and assets and liabilities aggregated to obtain meaningful monetary aggregates for the money base and broad money.

1.52.   Financial statistics cover the stock positions and flows of financial assets and liabilities between all sectors of the economy and between the sectors of the economy and the rest of the world. Financial statistics thus have broader sectoral coverage than monetary statistics. Financial statistics are organized and presented in a format designed to show financial flows among the sectors of an economy and corresponding financial asset and liability positions. The consolidated presentation of the financial corporations sector survey provides the stock and flow data for analysing claims on and liabilities to all other sectors of the economy and non-residents, at the level of the entire financial corporations sector. In particular, the financial corporations survey shows a comprehensive measure of credit extended by financial corporations to other sectors. Credit measures may cover all or only a subset of financial assets that constitute forms of credit.

1.53.   Data sources for monetary statistics include the central bank survey, the other depository corporations survey and the other financial corporations survey. The *Monetary and Financial Statistics Manual and Compilation Guide* MFSMCG (International Monetary Fund, 2016) classifies all financial corporations that issue liabilities included in the national definition of broad money as depository corporations and recommends the compilation of a depository corporations sector showing, in a balance-sheet format, broad-money liabilities of the depository corporations and the asset counterparts to those liabilities.

Analytical framework

1.54.   For many countries, the depository corporations survey will constitute the principal set of monetary aggregates for macroeconomic policy related to money and credit. These monetary aggregates define the balance sheet identity with the financial liabilities of the components of national definition of broad money matching the financial assets that determine domestic credit and net foreign assets.

1.55.   The depository corporations survey aggregates the central bank survey with the survey of other depository corporations whereby the central bank survey determined the monetary base held in the form of central bank's liabilities consisting of national currency and reserve deposits held at the central bank. The monetary base is a critical monetary aggregate for monetary policy because its changes usually lead to increases in money and credit that are larger than the changes in the monetary base.

1.56.   Credit measures may cover all or only a subset of financial assets that constitute forms of credit. Narrow credit measures cover claims in the form of loans, debt securities, and trade credit and advances. Such measures exclude deposits, equity and other accounts receivable (other than trade credit).

1.57.   Credit measures that are important for the formulation and implementation of monetary and other macroeconomic policies are the central bank credit and the central government credit. Central bank credit may be extended to (a) provide liquidity to fund ongoing operations of other depository corporations, (b) enable other depository corporations to respond to seasonal credit demand, (c) influence national financial conditions and the amount of broad money or (d) provide emergency assistance. Central governments supply credit to financial corporations by extending loans or providing deposits that are intended to be used for credit expansion by the financial corporations. Governments also often provide credit to non-financial sectors to foster public policy goals such as development of specific industries or regions or to provide emergency aid. Credit from governmental units is often granted at subsidized (i.e., below-market) interest rates. Comprehensive measures of government credit include lending by the central government and other levels of government.

1.58.   The analytical benefit of the financial statistics is the understanding of the interrelations between the subsectors of the financial corporations sector and between the financial corporations sector and the other sectors of the economy and non-residents. Data on loans and capital market instruments such as securities show the extent to which countries use the financial institutions and capital markets to obtain funds to finance economic activity. The data offer means for assessing the relative importance of various types of financing and for monitoring the changes in the sources of financing over time. Forms of financial asset accumulation, deposits, pension and life-insurance entitlements, securities, and the like, are also identified. Financial statistics provide a means for examining the contribution of domestic and foreign sources of financing to a country's current expenditure, capital formation and investments in financial instruments. Policymakers use financial statistics to analyse economic and financial developments within countries and to compare economic and financial development among countries. For example, financial statistics are an important input to the balance sheet approach to analysing a country's vulnerability to external or internal shocks. The financial account shows the flow of funds from net saving sectors to net borrowing sectors, channelled through intermediation in the financial corporations sector or, to a lesser extent, through direct lending between the non-financial corporations sectors.

Statistical framework

1.59.   Many countries have longstanding experience with the compilation and dissemination of balance-sheet (stock) data for the central bank and other depository corporations on a monthly basis. At present, some countries compile and report balance-sheet data for some or all categories of other financial corporations on a quarterly or annual basis or, for more advanced countries, on a monthly basis. These practices are the basis for the periodicity and timeliness dimensions identified for dissemination on a monthly basis for the central bank and other depository corporations.

1.60.   Countries may experience difficulties with the development of quarterly data reporting for other financial corporations on a timely basis, given that insurance corporations, pension funds and financial auxiliaries often report only annual data and only with lengthy reporting lags. Such data are often reported to supervisory authorities or other government agencies that have been involved with the reporting of source data for monetary or financial statistics. For these countries, quarterly data reporting for the other financial corporations may need to be developed over the medium term, possibly entailing the establishment of direct reporting of data from other financial corporations to the compilers of the monetary statistics. Compilation of the financial statistics on a quarterly basis is applicable to countries that already have quarterly data for the current account and capital account of their national accounts statistics, or are currently working on migration from annual to quarterly national accounts statistics.

g)   Set 7: General government sector

Scope and coverage

1.61.   This category covers central, state or provincial and local government finance statistics. It may be further extended with public enterprises to constitute the public sector. The statistics relate to revenue, expenditure, balance and, where relevant/feasible, domestic (with a bank/ non-bank breakdown) and foreign financing.

1.62.   For more frequent and timely statistics on the fiscal overview of general government operations, central government operations are used. This covers budgetary accounts and other central government units (social security and extrabudgetary units and accounts) only.

1.63.   With the availability of data on central government operations on a monthly basis, countries are encouraged to meet the monthly periodicity and timeliness. For government debt of the central government, quarterly dissemination dimensions are recommended when source data are not made available earlier.

Analytical framework

1.64.   Government finance statistics (GFS) are designed to provide statistics that enable policymakers and analysts to study developments in the financial operations, financial position and liquidity situation of the general government sector or the public sector in a consistent and systematic manner. The GFS can be used to analyse the operations of a specific level of government and transactions between levels of government as well as the entire general government or public sector. One way to use the GFS data is to produce summary information on the overall performance and financial position of the general government or public sector through a set of balancing items, such as the net operating balance, primary operating balance, net lending/borrowing, government deficit/surplus and the change in net worth. These balancing items measured on accrual principles are complemented by the cash surplus/deficit as a summary measure of the government operations measured on a cash basis.

1.65.   Net operating balance, primary operating balance, net lending/borrowing and government deficit/surplus are summary measures of the ongoing sustainability of government operations. Net lending/borrowing indicates the extent to which government is either putting financial resources at the disposal of other sectors in the economy or utilizing the financial resources generated by other sectors. Government deficit/surplus is an interesting measure because it differs from the net lending/borrowing for those transactions recognized and classified as transactions in assets and liabilities for public policy purposes such as purchases of equity or provisions of loans. These latter financial transactions have become increasingly relevant in the fiscal policy responses of the government during the economic and financial crises.

1.66.   While the aforementioned analytical summary statistics are obtained through the recording of flows and stocks on an accrual basis, information on the sources and uses of cash is important for assessing the liquidity of the general government sector. The summary measure for liquidity is obtained from the cash balance: cash surplus/deficit. This measure shows the total amount of cash inflows/outflows from current operations and net cash outflows from transactions in non-financial assets. These measures are based on the transactions of the government and should be complemented by statistics based on the stock of financial liabilities and assets.

Statistical framework

1.67.   Increasingly fiscal data are required at higher frequency than annually or quarterly to obtain the ability to detect early on, issues of solvency and liquidity and other analytical perspectives on fiscal operations and positions. The business sector and the monetary authority can benefit from an early release of this fiscal stance to anticipate potential fiscal policy shocks. Countries are meeting this demand for fiscal data by disseminating monthly measures of budget balances for central government operations and quarterly central government debt statistics. Others have extended the scope to quarterly general government accounts with an encouraged timeliness of one quarter for SDDS subscribers.

h)   Set 8: Household sector

Scope and coverage

1.68.   This data category contains statistics on household disposable income, household saving, household debt and other relevant statistics such as debt service and principal payments, and defaults on home mortgages, credit card debt and car loans, etc.

Analytical framework

1.69.   With the household consumer being identified as one of the major drivers of growth, the development of household disposable income as a source of household consumption has become an important variable in socioeconomic policymaking. This income variable also determines the present and future capacity to meet debt service payments against outstanding debt. With a significant amount of household debt represented by house mortgages, consumer credit and car loans, they provide a specific early warning signal about the present capacity to meet debt repayments.

Statistical framework

1.70.   The basic source data for measuring household disposable income at the national level, as reflected in the national accounts, has to be obtained from household surveys that are representative for the nation. The frequency of these source data has to meet the measurement of this income at quarterly periodicity. Total debt can be obtained in part from depository surveys, which traditionally have a monthly or quarterly frequency. These surveys have to be extended to other financial corporations if a large share of credit has been extended by those institutions.

i)   Set 9: Non-financial corporations sector

Scope and coverage

1.71.   This data category contains statistics on non-financial corporations' profits, non-financial corporations' debt and other relevant statistics such as net foreign exchange exposure to equity, and the number of applications for protection from creditors, etc.

Analytical framework

1.72.	The data on non-financial corporations' profits are a measure of profitability of the sector that can be obtained from administrative and survey data. This and other profitability statistics can assess the vulnerability and sustainability of the non-financial corporations sector in meeting their debt obligations. Further breakdown of the debt by foreign currency show the exposure to currency risks. The number of applications for protection from creditors is an early warning signal for a deterioration of the quality of the outstanding liabilities in the capital market.

Statistical framework

1.73.	The frequency and coverage of the source data from surveys and administrative data for the corporate sector should be aligned with the periodicity and timeliness of the statistics. Increasingly, with the use of administrative data, the segment of large corporations could be representatively covered. The surveys of the financial corporations sector in combination with the external debt systems should cover the domestic and external debt and its servicing.

### j)	Set 10: Financial market

Scope and coverage

1.74.	This data category contains interest rates, exchange rates, nominal and real effective exchange rate, stock market statistics and other relevant indicators such as spreads between lending and deposit rates, highest-lowest interbank rate, etc. Whether countries are able to report on those statistics depends on the existence of relevant financial markets.

1.75.	The interest rates refer to the different types of interest rate such as the monthly averages of day-to-day money market interest rates or the monthly averages for the three-month interest rates. Other representative interest rates might be the monthly average of the bond yields at maturities of the three- and six-month treasury bills and the long-term government bond rate. The long-term government bond rate is defined as the long-term interest rate calculated as the monthly average of central government bond yields with around 10 years' residual maturity.

1.76.	The exchange rates refer to spot market and forward exchange rates for major currencies with respect to the national currency (bilateral exchange rates) based on monthly average and end-of-month rates for a range of currencies. Nominal and real effective exchange rates are calculated as average trade-weighted effective rates. For the real effective rate, a price index such as the CPI or an index of costs can be used as a deflator.

1.77.	Stock market statistics can include the stock market index and stock market capitalization. The stock market index to be tracked preferably should be representative of the performance of the entire stock market. A major distinction is between a price index, which measures changes in the market capitalization of the basket of shares in the index, and a return index, which adds on to the price index the value of dividend payments (and assumes they are reinvested in the same stocks). A price index measures how the value of the stocks in the index is changing, a return index tells the investor what their "return" is, i.e., how much money they would make as a result of investing in that basket of shares. Other terms for "return" are "performance" and "accumulation". Other components that determine what an index measures are: geographic coverage, market coverage, sector coverage, threshold for inclusion in the basket and corrections for "anomalies" (for example, splits and market consolidations). There are literally thousands of stock market indices available worldwide because indices are tailored to meet the specific needs of investors and other market observers. They may cover specific industries (for example, engineering goods), sectors (for example, telecom, energy or health

care), whole markets (for example, all shares indices) and may be local, national, multinational or even global. They can be calculated and distributed as frequently as on a "real-time" basis of every few minutes but are at least available on a daily basis. In recent years there has been a tendency for stock exchanges to cooperate on index methodology with major financial houses such as Standard & Poor's, FTSE, Dow Jones. When an agency sponsors index calculation, its name is often included in the official index name. The statistical methodologies used to calculate the indices are well developed. The stock market capitalization refers to the market value of the shares outstanding of companies which are listed on the stock market, expressed in the national currency.

1.78.   Central bank interest rates are key reference rates set by national central banks as the policy rate at which the central bank lends to other depository corporations. Spreads between interest rates are the difference in percentage points between interest earned and interest paid, lending and borrowing rates, or the differences between a lending rate and a yield of a bond rate, e.g., overnight lending rate and the long-term government bond rate.

Analytical framework

1.79.   The analysis of interest rates and the spreads between interest rates are used to develop yield curves, which provide early warning signals through their forward-looking property upon which the central bank and government determine their macroeconomic policies. More often than not when the yield curve is upward sloping, and thus the interest rate spread is positive, it means that yields increase as time to maturity increases. This shape of the yield curve demonstrates the higher yield on longer-term bonds explained by the compensation for investors for greater exposure to the risk of changes in future interest rates. Occasionally the yield curve becomes downward-sloping or inverted, and thus the interest rate spread is negative. This inverted relationship occurs if investors anticipate a recession in the near future. This anticipation will lead them to sell their short-term bonds and buy longer-term bonds to carry them through the recession. The sell-off of short-term bonds will lower their price and thus raise their yields, while the buying up of long-term bonds will raise their price and thus lower their yield. If these two effects are sufficiently strong, the interest rate spread can invert or become negative.

1.80.   Exchange rate movements are near-term signals of international competitiveness, which are closely guarded by the monetary authorities. They are in a position to use their foreign exchange reserves to influence the market price through either buying or selling foreign currency. The effective exchange rate is an indicator to understand international competitiveness in terms of the foreign exchange rates of major trading partners that cannot be understood by examining only individual exchange rates.

1.81.   The stock market index and market capitalization are important statistics which track the overall health of the economy. Their movement is indicative of the expected future profitability of the listed companies in return to their investments and innovations. Deviations from trend developments are to be monitored carefully because the second-round effect of the value fluctuations might have considerable impact on the macroeconomic stability of production, consumption and accumulation.

Statistical framework

1.82.   The periodicity and timeliness of most of the financial markets statistics are available on a daily basis from commercial sources. It is recommended that monthly averages or month-end measures are prepared and released quickly after the reference month.

k) Set 11: Real estate market

Scope and coverage

1.83.   This data category contains the residential property price index and new and existing house sales.

1.84.   The residential property price index pertains to underlying price data such as transaction prices, appraisal values, judgments by market experts, offer prices, the geographical coverage (urban areas or major cities) and types of dwellings (new, existing dwellings), etc.

1.85.   The house sales indicator comprises the number of residential dwellings sold, as well as the transaction values.

Analytical framework

1.86.   With the housing market and the property markets being identified as one of the major causes of the 2007-2008 macroeconomic and financial instability, the demand for these statistics has intensified. The residential property price index aims to reflect changes in prices and, therefore, corrects for the different characteristics residential properties have over time. The transaction values reflect the expenditure on purchasing a residential property.

Statistical framework

1.87.   Residential property price indices, property transaction data—in number and value— for house sales should have a quarterly periodicity and timeliness to assess the dynamics of housing market activities.

l) Set 12: Economic sentiment indicators

Scope and coverage

1.88.   This data category contains consumer confidence and business confidence indicators, and composite business cycle indicators, which comprise leading, coincident and lagging indicators.

Analytical framework

1.89.   The confidence indicators provide essential information for economic surveillance, short-term forecasting and economic research. Moreover, they are widely used to detect turning points in the business cycle.

Statistical framework

1.90.   A consumer confidence indicator measures consumers' perceptions of their personal current economic/financial conditions and that of the overall economy, as well as their expectations for the near future. Consumer confidence indicators are based on consumer tendency surveys, which collect (mainly) qualitative responses from the consumer on the past, current and future economic situation. An example of a consumer confidence indicator is that which is calculated by the Directorate General for Economic and Financial Affairs of the European Union (EU), which is also used by the OECD. The EU-harmonized consumer confidence indicator is based on answers to the following four questions with five answer alternatives to each question (a lot better, a little better, the same, a little worse, a lot worse): (a) expected change in the financial situation of the household over the next 12 months; (b) expected change in the general economic situation over the next 12 months; (c) expected change in unemployment over the next 12 months; and (d) expected change

in the savings of the household over the next 12 months. Another example is the consumer confidence index calculated by The Conference Board, which is based on answers to the following questions: (a) assessment of their personal current business conditions, (b) assessment of their personal current employment conditions, (c) expectations regarding business conditions in six months, (d) expectations regarding employment conditions in six months and (e) expectations regarding their total family income six months hence. A third example is the overall confidence index (CI) of the Central Bank of the Philippines, which is computed as the percentage of households that answered in the affirmative less the percentage of households that answered in the negative with respect to their views on a given indicator. A positive CI indicates a favourable view, except for the inflation rate, the peso-borrowing rate, unemployment and change in prices, where a positive CI indicates the opposite. The overall consumer CI measures the average direction of change in three indicators: overall condition of the economy, household finances, and household income.

1.91.   The business confidence indicators are based on business surveys which can cover a single economic activity like manufacturing or have a broader sector coverage, including construction, retail trade and financial services. The consumer confidence indicators are based on household surveys. Nearly all the questions are of a qualitative nature. Answers obtained from the surveys are aggregated in the form of "balances". Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The balance series are then used to build composite indicators. Based on the frequency of the survey, the indicators can be produced monthly or quarterly.

1.92.   Business surveys contain main questions with reference to an assessment of recent trends in production, of the current levels of order books and stocks, as well as expectations about production, selling prices and employment. The consumer survey collects information on households' spending and saving intentions, and assesses their perception of the factors influencing these decisions.

1.93.   The composite business cycle indicators are typically constructed from a variety of indicators. Data series that can be considered for constructing leading indicators include average weekly hours, new orders, consumer expectations, housing permits, stock prices and the interest rate spread. Data series that can be considered for constructing coincident indicators include employment, production, personal income, and manufacturing and trade sales. Data series that can be considered for constructing lagging indicators include inventory-sales ratios, change in unit labour costs, average prime rate charged by banks, and commercial and industrial loans outstanding. However, the availability of data and the specific leading properties in anticipating turning points in business cycles may vary from country to country. Thus, countries may need to make their own assessment of the type of data series to include in the construction of composite business cycle indicators.

D.   Other frameworks for short-term statistics

D.1. Overview of other frameworks

1.94.   As described in Hosn and others (2013), a number of frameworks outlining priority short-term economic statistics have been developed by international and regional organizations in cooperation with national statistics offices over the last few years. The individual priority statistics listed in each of the frameworks are intended to facilitate the frequent monitoring of economic and financial developments at the national level. An overview of these frameworks and the availability of the statistics in these frameworks in the data template for short-term statistics are provided below.

a) Principal global indicators

1.95.   The principal global indicators (PGI) comprise over 40 mostly monthly and quarterly internationally comparable indicators for the Group of 20 economies and economies with systemically important financial sectors that are not members of the Group of 20 economies (see table 1.2). The PGI data set include major economic indicators that are available at participating international agencies covering financial, fiscal, external, and real sector data. The PGI data set facilitates the monitoring of economic and financial developments for these jurisdictions.

1.96.   Launched in 2009 in response to the financial and economic crisis, the PGI website is hosted by the International Monetary Fund (IMF) and is a joint undertaking of the Inter-Agency Group of Economic and Financial Statistics (IAG) comprising the Bank for International Settlements (BIS), European Central Bank (ECB), Eurostat, the IMF, the Organisation for Economic Co-operation and Development (OECD), the United Nations and the World Bank. The IAG was established in 2008 to coordinate statistical issues and data gaps highlighted by the global crisis and to strengthen data collection.[9]

[9] More information on the PGI and IAG is available on www.principalglobalindicators.org and in Gupta (2011).

1.97.   Table 1.2 presents the PGI, together with the frequency with which they are published. The table also shows most of the PGI are also included in the data template for short-term statistics.

Table 1.2
Principal global indicators

Principal global indicator	Frequency	In data emplate for short-term statistics?
Real Sector		
GDP—volume	Q	Y
Household consumption expenditure, including NPISHs	Q	Y
Government consumption expenditure	Q	Y
Gross fixed capital formation	Q	Y
Exports of goods and services	Q	Y
Imports of goods and services	Q	Y
GDP deflator	Q	Y
Persons, number of	A	N
External sector		
Current account balance	Q	Y
International investment position (IIP)—net	Q	Y
IIP assets	Q	Y
IIP liabilities	Q	Y
External debt	Q	Y
Short-term external debt	Q	Y
Portfolio investment	A	N
Equity securities	A	N
Debt securities	A	N
Gross official reserves	M	Y
Goods: Exports f.o.b.	Q	Y[a]
Goods: Imports c.i.f	Q	Y[a]
Financial sector		
Domestic credit (consolidated balance sheet of the banking sector)	M	Y
Base money	M	N
Broad money	M	Y

Principal global indicator	Frequency	In data emplate for short-term statistics?
Central bank assets	M	Y
Other depository corporations assets	M	Y
Regulatory tier 1 capital to risk weighted-assets	Q	Y
Regulatory tier 1 capital to assets	Q	Y
Non-performing loans net of provisions to capital	Q	Y
Non-performing loans to total gross loans	Q	Y
Return on assets	Q	Y
Liquid assets to short-term liabilities	Q	Y
Residential real estate price index	Q	Y
Fiscal sector		
Government finance statistics		
Revenue (as a percentage of GDP)	Q	Y[a]
Expenditure (as a percentage of GDP)	Q	Y[a]
Net lending/net borrowing (as a percentage of GDP)	Q	Y[a]
Gross debt (at face value)	Q	Y
Gross debt (at market value)	Q	Y
Other regional/national gross debt concept	Q	N
Market sector		
Exchange rates—United States dollar	M	Y
Effective exchange rates—nominal	M	Y
Effective exchange rates—real	M	Y
Short-term interest rate	M	Y
Long-term interest rate	M	Y
Consumer price index	M	Y
Producer price index	M	Y
Industrial production	M	Y
Unemployment rate—total	M	Y
Retail turnover	M	Y
Share prices	M	Y
Consumer confidence	M	Y
Business confidence	M	Y
Oil price—world	M	N

Note: A, annually; Q, quarterly; M, monthly; N, no; Y, yes.

[a] This analytical indicator can be derived from the data template.

b)   United Nations Economic and Social Commission for Asia and the Pacific's core set of economic statistics

1.98.   The Committee on Statistics at its second session endorsed, in their entirety, the *Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific* and the *Core Set of Economic Statistics* developed by the Technical Advisory Group (TAG), as the regional strategy and guideline for developing the capacity of national statistical systems to produce and disseminate economic statistics in line with international standards. The regional programme has a phased implementation plan which aims to develop enduring capabilities in Asian and Pacific statistical systems to produce the Core Set of Economic Statistics by 2020.[10] The core set of economic statistics developed for the regional programme for the development of economic statistics in Asia and the Pacific is provided in table 1.3.

[10]   More information on the regional programme can be obtained from www.un.org/ga /search/view_doc .asp?symbol=E/ESCAP /CST%282%29/4, www .un.org/ga/search/view_doc .asp?symbol=E/ESCAP /CST%282%29/5 and www .unescap.org/sites/default/files /pre-ods/CST3-CRP1E.pdf.

Table 1.3
Core set of economic statistics for the regional programme on economic statistics in Asia and the Pacific

Category	Component	Frequency	In data template for short-term statistics?	SDDS+	SDDS	e-GDDS
Prices and costs	Consumer price index (CPI)	Q	Y	Y	Y	Y
	Producer price index (PPI)	Q	Y	Y	Y	Y (as an "Encouraged extension")
	Commodity price index	M	Y	N	N	N
	External merchandise trade price indices	M	Y	N	N	N
	Wages/earnings data	Q	Y	Y	Y	Y
	Labour costs index/wage index	Q	N	N	N	N
	Exchange rates	D	Y	Y	Y	Y
	Purchasing power parities (PPP)	Ad hoc	N	N	N	N
Demand and output	Gross Domestic Product (GDP) (production) (P) nominal and real	Q	Y	Y	Y	Y (quarterly encouraged)
	GDP (expenditure) (E) nominal and real (including implicit price indices for GDP(E) and components)	Q	Y	Y	Y	Y (quarterly encouraged)
	External trade—merchandise	M	Y	Y	Y	Y
	External trade—services	Q	Y	Y	Y	Y
	Short-term indicator (STI)—Industry output	Q	Y	Y	Y	Y
	STI—Consumer demand	Q	Y	N	N	N
	STI—Fixed investment	Q	Y	N	N	N
	STI—Inventories	Q	Y	N	N	N
	Economy structure statistics	Five yearly or at regular intervals	N	N	N	N
	Productivity	A	N	N	N	N
Income and wealth	Integrated national Accounts for the total economy	A	Y	N	N	N
	Institutional sector accounts	A	Y	N	N	N
	Balance of payments (BOP)	Q	Y	Y	Y	Y
	International Investment Position (IIP)	A	Y	Y	Y	Y
	External debt	Q	Y	Y	Y	Y
	Income distribution	Five yearly	N	N	N	N
Money and banking	Assets/liabilities of depository corporations	M	Y	Y	Y	Y
	Broad money and credit aggregates	M	Y	Y	Y	Y
	Interest rate statistics	M	Y	Y	Y	Y
Government	General government operations	Q	Y	Y	Y	Y
	General government debt	Q	Y	Y	Y	Y
Labour market	Labour supply and demand	A / Q	Y	Y (part)	Y (part)	Y (part)
	Hours worked	Q	Y	N	N	N
Natural resources and the environment		A	N	N	N	N

Note: A, annually; Q, quarterly; monthly; N, no; Y, yes.

1.99.   Although several indicators in the core set are short-term economic indicators, the set also includes a number of annual, five-yearly and ad hoc series. As can be observed from the table, most of the short-term economic statistics covered are included in the data template for short-term statistics and the IMF's SDDS plus, SDDS and e-GDDS. The core set recognizes the role of the SNA as the common conceptual framework underlying the integration of economic statistics and is consistent with SNA data needs. However, it is not intended as a list of all of the source data needed to compile national accounts, although all key statistics in the core set will satisfy many of the source data needs of national accounts compilers.

1.100.   The core set of economic statistics can be described in terms of the following:

   a)   Priority economic statistic category or domain and key statistics within each domain;

   b)   Their frequency;

   c)   Existing international standards/guidelines for each statistical domain.

1.101.   The purpose of the Regional Programme for Asia and the Pacific, of which the core set is a key element, is to develop the national capacity of countries in the Asia and Pacific region to produce a range of economic statistics or, in other words, remove the constraints preventing their production. Within the framework of the programme, the core set fulfils dual roles of (a) determining the scope of the programme and (b) providing guidance on the minimum set of economic statistics to be produced.

1.102.   The core set will inform short- and long-term economic analyses and decision-making by both government and non-government agencies and organizations. It will provide an information data set intended to satisfy a set of uses that includes:

   a)   The conduct of monetary policy;

   b)   Establishing and monitoring the government's fiscal position;

   c)   Assessing the long-term capability of the economy, with a focus on sustainable growth;

   d)   Developing policies designed to achieve generally agreed economic goals, such as increased economic welfare and greater equity;

   e)   Measuring the economic, social and environmental impact of internal and external shocks;

   f)   Providing the information necessary for the efficient functioning of markets;

   g)   General monitoring and forecasting of the economy;

   h)   Informing economic, social and environmental analyses;

   i)   Meeting international obligations to provide information about the performance of the economy and the well-being of the nation.

1.103.   The core set is indicative and not prescriptive. It sets out what are considered to be the minimum set of statistics needed for effective economic analysis and monitoring. The core set has a short-term and longer-term element through the inclusion of short-term and structural economic statistics. The set does not focus on economic statistics required to measure the impact of the global financial crisis but allows monitoring of such global developments.

1.104.   It is not envisaged that the Regional Programme for Asia and the Pacific will attempt to improve the national capacities of all core economic statistics in all economies in the Asia and Pacific region. Priorities as to which specific basic economic statistics within each of the broad categories of statistics listed in table 1.3 should be compiled by the national statistical system, and for which capacity development is required, is largely dependent on the identified needs of key users in government and non-government agencies/organizations. The core set also facilitates identification of economic statistics that are particularly relevant and of importance to individual economies.

1.105.   The core set describes a minimum information set that each United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) member and associate member is encouraged to produce, regardless of the stage of economic development, the degree of sophistication of markets and/or the extent of government intervention in the economic process. However, the size and structure of the economy of members and associate members vary largely and parts of the core set may not be relevant to all.[11]

c)   United Nations Economic and Social Commission for Western Asia's priority short-term indicators

1.106.   In line with ongoing international efforts for capacity-building, and the growing need of member countries to access technical assistance on short-term indicators, the United Nations Economic and Social Commission for Western Asia (ESCWA) started implementing a project "Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth", in 2014, in collaboration with the United Nations Statistics Division (UNSD) and other United Nations agencies. The purpose is to strengthen the capacity of member countries in producing and disseminating a core set of priority short-economic indicators of appropriate quality and timeliness, together with their related metadata in order to facilitate review of the economic performance and provide a basis for the preparation of future performance.

1.107.   The ESCWA regional project aimed to undertake assessment of availability, gaps and needs in seven pilot countries from the region (Egypt, Jordan, Lebanon, Oman, Qatar, the State of Palestine and Tunisia) in the production and dissemination of short-term economic indicators according to international standards. Priority indicators were selected by each country, and a common core set of indicators, mainly produced by national statistical offices, was identified. The list of these indicators, which are also mostly available in the data template, is shown in table 1.4. Training workshops, technical assistance missions and customized information systems have been planned to build capacity to produce, disseminate and use the priority indicators. A "Regional Methodological Handbook on Short-term Economic Statistics in the Arab Region" will be prepared to provide a guide that supports all countries in the Arab region in producing and disseminating the core set identified by pilot countries from the region.[12]

Table 1.4
Priority short-term indicators identified by the pilot countries participating in the ESCWA project

Priority short-term indicator
Quarterly GDP by:
• production
• expenditure
• income
Flash GDP
Producer price index
Import and export price indicators (import and export price indices or unit value indices)
Turnover index of industry by major division
Production index for industry by major division
Turnover index for retail trade (value and volume)
Production index for construction
Business and consumer confidence indicators
Employment by activity
Household debt
Residential property price index

[11] ESCAP (2010) describes each indicator in considerable detail and also lists the relevant international guideline/recommendation for each indicator. National summary sheets showing the implementation status of the Core Set are available on http://communities.unescap.org/economic-statistics/knowledge-base/national-summaries-capacity-screening.

[12]   More information on the project is available on www.un.org/esa/devaccount/projects/2014/1415AQ.html.

d)   Principal European economic indicators

1.108.   The principal European economic indicators (PEEI) are a set of monthly and quarterly economic indicators comprising the primary source of information for the analysis and monitoring of short-term, cyclical developments of the economy within the European Union (EU), the euro area, and the EU member States. As such, the PEEI are used as a statistical support for the implementation of economic and monetary policies. In 2002, the European Commission produced an initial list of 19 PEEI. This list was subsequently revised to increase its usefulness for economic analysis purposes and in 2008 a new set of targets was introduced.[13] Some changes have also been made since then.

1.109.   Table 1.5 presents the current set of PEEI together with the frequency with which they are published. The list also includes a set of other business cycle indicators (covering selected financial statistics produced by the European System of Central Banks and selected results from business and consumer surveys produced by the Directorate-General for Economic and Financial Affairs of the European Commission) that Eurostat publishes alongside the PEEI.[14] Most of the PEEI in the table are published as growth rates or ratios, which can be calculated using the statistics in the data template for short-term statistics.

1.110.   To promote the PEEI, a specific PEEI page was added on the website of Eurostat.[15] This page brings together in a single place a set of the most relevant and timely short-term economic indicators for the euro area and the European Union.

[13]   More information on the PEEIs is available in Eurostat (2009b) and Eurostat (2011d).

[14]   As noted in Eurostat and European Central Bank (2013), this broader set of indicators is known as Euro-indicators.

[15]   See http://ec.europa.eu /eurostat/web/euro-indicators /peeis.

Table 1.5
Principal European economic indicators

Principal European economic indicator	Frequency	In data template for short-term statistics?
Consumer prices indicators		
Harmonized Index of Consumer Prices (HICP) euro area flash estimate	M	N
HICP	M	Y
Quarterly national accounts		
First gross domestic product (flash) estimate	Q	Y
Gross domestic product estimate and breakdown	Q	Y
Sector accounts (household and company accounts)	Q	Y
Government finance statistics (Government deficit/surplus and general government debt)	Q	Y
Business indicators		
Industrial production	M	Y
Industrial producer prices	M	Y
Industrial import prices	M	Y
Production in construction	M	Y
Retail trade turnover	M	Y
Services turnover	Q	Y
Services producer prices	Q	Y
Labour market indicators		
Unemployment rate (total, 15-24 years and above 24 years)	M	Y
Job vacancy rate (flash estimate)	Q	N
Job vacancy rate	Q	N
Employment	Q	Y
Labour cost index	Q	N
External trade		
External trade balance	M	N
Housing indicators		
Residential property price index	Q	Y
House sales	Q	Y
Building permits	Q	Y

Principal European economic indicator Other business cycle indicators	Frequency	In data template for short-term statistics?
Balance of payments		
Balance of payments—current account	Q	Y
Business and consumer surveys		
Economic sentiment indicator	M	Y
Monetary and financial indicators		
Three-month interest rate	M	Y
Long-term government bond yields	M	Y
Euro exchange rate	M	N
Note: Q, quarterly; M, monthly; N, no; Y, yes.		

Chapter 2
Statistical standards, recommendations and compilation guidance for short-term statistics

A.   Introduction

2.1.   This chapter describes the statistical standards and compilation guidance underlying the compilation of the statistics in each category of the data template for short-term statistics. The chapter will also briefly describe the data sources and collection methods for the statistics in each category of the template.

B.   Statistical standards and compilation guidance underlying the short-term statistics in the data template

B.1.   Overview

2.2.   The availability of statistical standards and compilation guidance is recognized as an important element of the principles for governing international statistical systems which facilitate the development of consistent and internationally comparable statistical data. For this purpose the United Nations Statistical Commission requests from time to time the development and updating of such statistical standards and compilation guidance. Various international and regional organizations and countries are involved in developing these standards and compilation guidance and disseminate them through their own Internet sites and publications. Consequently, the availability of these statistical standards and compilation guidance is dispersed.

2.3.   To facilitate the sharing of statistical standards and compilation guidance, two repositories have been established. First, the Economic Statistics Branch of the United Nations Statistics Division (UNSD) has developed a Knowledge Base on Economic Statistics.[16] Second, based on an initiative by the National Institute of Statistics and Geography of Mexico (INEGI), presented at the forty-first and forty-second sessions of the United Nations Statistical Commission in 2010 and 2011, UNSD has created a Global Inventory of Statistical Standards.[17] These initiatives combine information made available by various official sources by optimizing the collection, organization, and display of statistical standards and compilation guidance.

2.4.   The Knowledge Base on Economic Statistics was developed in support of the Implementation Programme for the 2008 SNA, which includes the development of supporting statistics as one of its elements. The Knowledge Base facilitates the international sharing and exchange of knowledge on economic statistics programmes and includes international standards and recommendations as well as country practices. It serves as a single web-based access point for a dynamic and centralized repository of information on the collection, analysis and dissemination of all domains of economic statistics. The Knowledge Base is therefore also

[16]   http://unstats.un.org/unsd/EconStatKB/Knowledgebase.aspx.

[17]   http://unstats.un.org/unsd/iiss/MainPage.ashx.

a useful resource for developing short-term statistics for economic statistics. As of April 2015 it contained over 400 documents on standards and country practices. It is regularly updated to include the release of new materials on compilation guidance.

2.5.   The Global Inventory on Statistical Standards, while overlapping somewhat with the Knowledge Base, focuses more on recognized standards while relegating compilation manuals and documents on country practices to the Knowledge Base. It is updated to include the release of new statistical standards.

2.6.   The rest of this section describes the statistical standards and compilation guidance, as well as the data sources and collection methods underlying the compilation of the statistics in each category of the data template, using mainly materials from the above-mentioned repositories. The list of manuals and compilation guides is not intended to be exhaustive, as it is mostly based on publications prepared by international and regional organizations. To complement the information in this chapter, compiling agencies can consider referring to the repositories for publications on specific country practices which are prepared by national organizations. Countries are highly encouraged to adhere to international statistical standards and guidance and adopt international best practices in the compilation of the short-term statistics in the data template so that these statistics are reliable and internationally comparable.

a) National accounts

2.7.   This category covers the quarterly national accounts and may include the first accelerated estimate of GDP and its subsequent releases with more breakdown by expenditure components, income and output components by industries. It may also include quarterly institutional sector accounts covering the full sequence of accounts and balance sheets compiled within an integrated national accounts framework. The first estimate of GDP pertains to the accelerated release of the quarterly GDP as an aggregate measure of production. The quarterly GDP and its breakdown are made available in current prices and volume measures.

2.8.   Short-term statistics are often available on a monthly basis shortly after the reference period. Although each short-term statistic provides important insight into a specific aspect of the real and financial economy, it is through their integration in a coherent and comprehensive analytical and statistical framework—the System of National Accounts (SNA)—that these statistics are able to provide information on the dynamic relations of cause and effect.

Standards for national accounts

2.9.   The current standard for the compilation of national accounts is the *System of National Accounts 2008* (2008 SNA), which was adopted by the United Nations Statistical Commission (UNSC) at its thirty-ninth and fortieth sessions in February 2008 and February 2009. Historic versions of the SNA can be found on the UNSD website,[18] but the previous two versions—the *System of National Accounts 1993* (1993 SNA) and *A System of National Accounts* (1968 SNA)—are worth mentioning in this handbook, since as of 2014 there are countries still using them to compile their national accounts.

Compilation guidance for quarterly national accounts

2.10.   While "in principle, the SNA can be applied to any length of time period there are some special considerations that need to be respected for quarterly as opposed to annual accounts." (2008 SNA, 18.33) Manuals that offer compilation guidance for quarterly national accounts include the *Quarterly National Accounts Manual: Concepts, Data Sources and Compilation* (IMF, 2001 and forthcoming update)[19] and the *Handbook on Quarterly National Accounts* (Eurostat, 1999, 2013).

[18]   http://unstats.un.org/unsd /nationalaccount/hsna.asp.

[19]   www.imf.org/external/pubs/ft /qna/

2.11.   These manuals discuss in detail issues such as using indicators to extrapolate data, benchmarking quarterly estimates to annual data, price and volume measures and seasonal adjustment. The manuals cover the three approaches of GDP compilation (the production approach, the expenditure approach and the income approach), where the latest editions incorporate 2008 SNA and ESA 2010 updates, respectively, as well as the many developments in the compilation of quarterly national accounts statistics since their first editions. Although flash estimates of the GDP are discussed in the *Handbook on Quarterly National Accounts, 2013 Edition*, the *Handbook on Rapid Estimates* (Eurostat, United Nations, forthcoming) covers the topic in more detail, including the case where data for the fourth quarter are not available and extrapolation is necessary to compute the flash GDP estimate.

2.12.   Compilation guidance for quarterly sector accounts (Tier 3), while not included in detail in the aforementioned manuals, can be found scattered throughout other documents such as the *Manual on Quarterly Non-Financial Accounts for General Government* (Eurostat, 2011), the *Manual on Sources and Methods for Quarterly Financial Accounts for General Government* (Eurostat, 2008) and the *Quarterly Non-Financial Sector Accounts—European Inventory of Sources and Methods* (Eurostat, 2010).

Data sources and methods

2.13.   As national accounts consist of a comprehensive accounting framework that integrates the real and the financial economy, the data sources are too varied to discuss in detail in this handbook. This is particularly more so because of different circumstances in countries that entail different data sources. That being the case, this section provides only a summarized set of data sources which might be deemed desirable for compiling quarterly GDP estimates based on the expenditure, production and income approaches, at current prices and volume terms, as appropriate.

2.14.   In principle, the same basic statistics could be used for the compilation of quarterly accounts as for annual accounts. The main problem lies in the fact that these statistics are not always available on a quarterly basis or that they are less accurate when measured quarterly. This implies a different choice of basic statistics for quarterly accounts that must be able to satisfy the demands of fast availability and reliability.

2.15.   Among the sources and the methods used in compiling quarterly accounts, it is apparent that certain basic statistics relate to volume-type indicators, and thus in general form the basis of series in volume terms, while others are value-type indicators and thus in general form the basis of current price series. Some general rules in choosing basic statistics can be derived from the current practices adopted in the countries which compile quarterly accounts. Moreover, consideration will need to be given to any industry or institutional sector breakdown which might be required.

2.16.   It is important to point out that the derivation of quarterly national accounts estimates will need to make use of other information from government and non-government sources, in addition to the summary below. For example, commodity flow methods may be used to generate information on some specialized inputs, for example, pesticides, seeds and fertilizers for agriculture. Likewise, building material flows can be a helpful input for the estimation of construction output.

2.17.   Possible data sources and items for compiling quarterly estimates include:

    a)   **Quarterly household budget surveys** Data on the expenditure on goods and services should be collected, with a key point being the need for the sample to be balanced quarterly. If applicable and relevant to the country's economy, statistics on own-account production can be collected through these surveys. Since household surveys can become very expensive to conduct quarterly, their presence in this list corresponds to an ideal case;

b) **Business surveys** Specific business surveys would, most generally, embrace collection of information required for the monthly index of production and the monthly (or quarterly) index of retail sales. Some product/commodity breakdown would be useful for deflation, particularly for the production and retail sales indices. These surveys should collect information, as appropriate, on:

    i.   Sales/turnover;

    ii.   Purchases*;

    iii.   Gross fixed capital formation by fixed asset type;

    iv.   Inventories;

    v.   Compensation of employees;

    vi.   Gross operating surplus*;

    vii.   Employment;

    viii.   Financial information*;

c) **Tax authorities and government administrative sources** Information on the following variables might be available from government administrative sources, for use in the compilation of the income measure of GDP:

    i.   Compensation of employees;

    ii.   Operating surplus;

    iii.   Mixed income;

    iv.   Government spending and receipts: This information should be on the accrual basis;

d) **Foreign trade** Information on trade in goods and services would normally be provided by the quarterly balance of payments. Concerning goods, external trade statistics can provide extra information;

e) **Prices** These should cover:

    i.   Consumer prices;

    ii.   Producer prices (including agriculture);

    iii.   Service prices*;

    iv.   Export and import prices.

2.18.   This summarized ideal data set, as mentioned above, should be complemented with other information also required in the estimation process. Items marked with an asterisk (*) usually are involved with measurement problems (services prices), register problems (foreign trade in services), and the issues of costs and the general burden on businesses. The value of any income data from revenue department sources would need to be considered particularly carefully, given definitional differences and other problems of measurement.

b) Production and turnover

2.19.   This category covers the index of industrial production indices, turnover indices, new orders indices and production of major commodities (as relevant). Whereas the production index provides information on trends in actual monthly production output, turnover is used to assess current trends in sales and thus demand. These indices make an important input for the GDP first estimate and are generally released with a monthly frequency.

2.20.   Production, turnover and new order statistics are often built on a foundation of timely and accurate monthly source data that directly cover a high proportion of the totals. Ideally, the periodicity of production indices is monthly with a timeliness of the first estimate at 30 days after the reference period.

Standards for production and turnover statistics

2.21.   Production and turnover statistics need standard classifications of economic activities and of products, to which national and supra-national classifications should be harmonized. The *International Standard Industrial Classification of All Economic Activities* (United Nations, 2008), currently in its fourth revision (ISIC, Rev.4); and the *Central Product Classification* (United Nations, 2008), currently in version 2.1 (CPC, Ver.2.1) play this role. *A Companion Guide to ISIC, Rev. 4* and CPC, Ver. 2.1 (United Nations, forthcoming) assist users inside and outside of the national statistical offices (NSOs) in the implementation and understanding of these classifications. Current and historic versions are available from the UNSD website,[20] as well as other alternative classifications, including supra-national ones.

2.22.   Examples of supra-national economic activity classifications are the Statistical Classification of Economic Activities in the European Community (NACE Rev.2), the North American Industry Classification System (2012 NAICS) and the Australian and New Zealand Standard Industrial Classification (ANZSIC).

Compilation guidance for production and turnover statistics

2.23.   Industry statistics in general are covered by the *International Recommendations for Industrial Statistics* (United Nations, 2008) and the *Industrial Statistics: Guidelines and Methodology* (UNIDO, 2010), while the index of industrial production by major division is discussed in detail in the *International Recommendations for the Index of Industrial Production, 2010* (United Nations). Several documents complement the latter for economic activities not classified as manufacturing. Distributive trade is covered in the *International Recommendations for Distributive Trade Statistics* (United Nations, 2008). One source for compilation guidance for construction activities is the *Guidelines for Compiling the Monthly Index of Production in Construction* (Eurostat, 2011).[21] For services in general, the *Compilation Manual for an Index of Service Production* (OECD, 2007) contains guidelines and methodologies to measure short-term production activities. The remaining topics in this data template set, such as indices of turnover and new orders, are broadly covered in the *Methodology of short-term business statistics—Interpretation and guidelines* (Eurostat, 2006).[22]

2.24.   Linked to the PEEI initiative, Eurostat publishes a series of documents called *PEEI in Focus*, which contain useful information on turnover indices and building permit statistics such as:

 a) *A summary for the retail trade turnover and volume of sales indices* (Eurostat, 2006);

 b) *A summary for the index of turnover in services* (Eurostat, 2009);

 c) *A summary for building permits indicators* (Eurostat, 2011).

2.25.   Useful guidance on the compilation of these statistics, and in business surveys in general, is provided in the *Handbook on Design and Implementation of Business Surveys* (Eurostat, 1997) and its updated version, the *Handbook on Methodology of Modern Business Statistics* (MEMOBUST Handbook, Eurostat, 2014). A collection of country practices is available in, the publication *Country Practices for the Collection and Calculation of the Index of Industrial Production* (United Nations, 2008).

[20] http://unstats.un.org/unsd/cr/registry/regdnld.asp?Lg=1.

[21] Some general guidance on construction statistics can be found in the *International Recommendations for Construction Statistics* (United Nations, 1997), although it does not specifically cover production indices or deal with short-term data.

[22] See also *Methodology of Short-Term Business Statistics—Associated Documents* (Eurostat, 2006).

Data sources and methods

2.26.   For production and turnover indices, in many countries the main data source consists of business surveys. Input and output quantities, sales, turnover and prices can be obtained directly from the statistical units engaged in the production and trade of goods and services.

2.27.   Nevertheless, administrative data sources can also be very useful, and where the national statistical systems are more advanced and data quality allows it, these sources take a greater role in short-term statistics. Administrative sources can be used for statistical purposes in different ways: as a single source in their own right, as a frame for sampling, as a complementary source to complete existing statistics and to confront statistical data across time and space. For instance, the business register can serve as a sampling frame for surveys and will allow for adding up the information collected; value added tax (VAT) and other tax declarations can give an indication of turnover (or a quality control if this information is collected through surveys); and information on building permits will allow for a better estimation of an index of production in construction.

2.28.   Non-official sources can also be used, but not before their usability has been thoroughly analysed. Trade associations and chambers of commerce, for example, can produce non-official data about the business community, and it is up to the NSO or other statistical authority to decide whether the advantages of using these data outweigh their shortcomings.

c)   Prices

2.29.   The consumer price index (CPI) is focused on household consumption of goods and services. The producer price index (PPI), in turn, may include all domestic goods- and service-producing establishments and can refer to indices related to inputs or outputs of the production process. The import price index (MPI) is an economic indicator that measures change in the prices of imported goods and services. This index is complemented by the export price index (XPI), which measures change in the prices of exported goods and services. Together, these latter two are referred to as XMPIs.

2.30.   The CPI is an important economic indicator of price changes. The index not only shows the impact of inflation on family budgets but can also affect interest rates, tax allowances, wages, state benefits, pensions, maintenance, contracts and many other payments. As such, the CPI is also used as one of the key variables for monetary policy in defining price stability and targeting an inflation rate. The PPI is used in monitoring and measuring inflation at different stages of production. Some PPIs assist company accountants to revalue assets from historic to replacement cost terms.

Standards for price statistics

2.31.   The standard for the CPI is the *Consumer Price Index Manual: Theory and Practice* (ILO et al., 2004), whereas that for the PPI is the *Producer Price Index Manual: Theory and Practice* (IMF et al., 2004). In turn, the standard for the XMPIs is the *Export and Import Price Index Manual: Theory and Practice* (IMF et al., 2009). The CPI Manual was prepared after the International Conference of Labour Statisticians (ICLS) Resolution concerning CPI (ILO, 2003).

2.32.   Product, expenditure and industry classifications also constitute important standards for the compilation of price indices. For the CPI, they are the CPC Ver. 2.1 and the *Classification of Individual Consumption According to Purpose* (COICOP) (United Nations, 2000). For the PPI, they are CPC Ver. 2.1 and ISIC Rev. 4. As to the XMPIs, in addition to all of these, other classifications aimed to categorize international trade are: the *Standard Industrial Trade Classification Revision 4* (SITC Rev.4), the *Harmonized Commodity Description and Coding System*, Revision 5 (HS Rev.5), the *Classification by Broad Economic Categories, Revision 3* (BEC Rev. 3) and the Extended Balance of Payments Services Classification (EBOPS).[23]

[23] See *Manual on Statistics of International Trade in Services 2010* (MSITS 2010).

2.33. While not directly related to short-term statistics, another publication worth mentioning is the *Measuring the Real Size of the World Economy: The Framework, Methodology, and Results of the International Comparison Program (ICP)* (World Bank, 2013), which provides a comprehensive review of the statistical theory and methods underlying the estimation of PPPs and real expenditures, the choices made for the 2005 ICP round, and the lessons learned that led to improvements in the 2011 ICP. It also explains the methods used at each successive stage of the ICP from the drawing up of the detailed product specifications and the product lists used for price collection through to the calculation of the final global set of purchasing power parities (PPPs) at the GDP level.

Compilation guidance for price statistics

2.34. Accompanying the standards for short-term price indices, there is complementary compilation guidance available in the form of the following publications:

a) *Practical Guide to Producing Consumer Price Indices* (UNECE et al., 2009);

b) *Handbook on Industrial Producer Price Indices* (Eurostat, 2012);

c) *Methodological Guide for Developing Producer Price Indices for Services* (Eurostat, OECD, 2014);

d) *European Price Statistics—An Overview* (Eurostat, 2008).

2.35. Supplementary manuals to the ICP Handbook, as well as further methodological guidance are available on the World Bank's ICP website.[24]

[24] See http://siteresources .worldbank.org/ICPEXT /Resources/ICP_2011.html.

Data sources and methods

2.36. Price indices summarize general price movements by averaging individual price movements according to appropriate weights. Consequently, any data collection method should pay attention both to prices and weights.

2.37. Some data collection issues that are common to all indices are whether observations are spread over a few days to provide an approximation to a point-in-time (e.g., Monday to Wednesday to represent prices on the Tuesday in-between) or over the whole month; and also what the scope of the price index being constructed will be (e.g., whether or not the index will cover black market or informal activities). Other issues concern how to deal with changes in quality of the same product and the appearance of new products and disappearance of existing products.

2.38. On the other hand, given the different nature of the price indices in terms of the purchase transactions and the places they occur, data sources can vary to a great extent, while methods may be a bit more homogeneous. On top of that, different circumstances in countries will call for different implementation of the same principles of data collection.

2.39. For the CPI, a distinction is made between price collection from individual shops and outlets (local price collection), which can be more or less structured depending on the level of informality in the country and prices collected centrally by staff located in the headquarters or regional offices of the NSO (central price collection). Both have advantages and disadvantages described in the CPI Manual, and a combination of the two may be the best approach to take, depending on the data item (product) from which to collect prices. Items can be treated separately or a specific representative item can be carefully selected to represent a group of products. These should be typical of price movements in the consumer price index basket.

2.40. Calculating the PPI entails collecting prices from businesses relating to particular products and time periods. Businesses can be both sellers and buyers of products, so that prices may

be collected for sales of goods and services for use in an output price index or purchases of goods and services used in the production process for use in an input price index. Data collection can be conducted through various means, such as postal surveys, electronic data collection (be it web-based, by e-mail or by electronic data transfer/capture), telephone or personal interviews, and alternative published sources.

2.41.   As to the XMPIs, administrative data sources can have the shortcoming of providing unit values, where product quality is not taken into account, rather than prices. However, their importance cannot be neglected and they can be divided as follows:

a) Customs administration, which can provide information on weights and prices and in particular on international transport and insurance;

b) International Transaction Reporting System (ITRS), used by many countries to collect data on the balance of payments statistics. The ITRS records transactions between residents and non-residents whose settlement is carried out through commercial banks;

c) Others: Line ministries, the Ministry of Finance or the Treasury.

2.42.   Export and import price surveys can also be carried out. They are not much different in concept from other price surveys, but their focus is more on establishments and products involved in international trade.

2.43.   Additionally, components of the PPIs related to exported goods can be used as an input to the XPI, whereas foreign CPI components can be used for the calculation of the MPI in what relates to the household purchases of goods and services abroad. They will need to be weighted accordingly, using information from the other data sources listed above for XMPIs.

d) Labour market

2.44.   This data category contains statistics on unemployment, employment, hours worked and hourly wage rate. Labour market data comprise a key set of statistics for the assessment of the cyclical situation and for macroeconomic and social policymaking. Unemployment as an indicator is a lagging indicator in the business cycle of economic activity, which could be further broken down into structural and short-term unemployed. It is closely watched because the indicator signals the build-up of fiscal pressures in the near and long term. Data may be presented in numbers, say, thousands of persons, and by rate (unemployment rate). Employment data can be broken down by sex, age or occupation based on the International Standard Classification of Occupations. Data are disseminated on a monthly basis either non-seasonally or seasonally adjusted. Data on hours worked and hourly wage rate are disseminated on a monthly or quarterly basis. They can be broken down by gender and by economic activity.

Standards for labour market statistics

2.45.   Standards for labour market statistics are set by the ILO's International Conference of Labour Statisticians[25] (ICLS), which meets roughly every five years. The most recent one relating to the labour market statistics in the data template is the resolution concerning statistics of work, employment and labour underutilization (nineteenth ICLS, 2013).[26]

2.46.   Other ICLS resolutions and guidelines relevant for the labour market statistics in the data template include:

a) ICLS Resolution concerning the measurement of working time (eighteenth ICLS, 2008);

b) ILO Guidelines concerning a statistical definition of informal employment (seventeenth ICLS, 2003);

[25] www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/lang--en/index.htm.

[26] For more information, see ILO (2013a) and ILO (2013b).

c) Resolution concerning the measurement of underemployment and inadequate employment situations (sixteenth ICLS, 1998);

d) Resolution concerning the measurement of employment-related income (sixteenth ICLS, 1998);

e) Resolution concerning statistics of employment in the informal sector (fifteenth ICLS, 1993);

f) ICLS Resolution concerning statistics of the economically active population, employment, unemployment and underemployment (thirteenth ICLS, 1982);

g) ILO Resolution concerning an integrated system of wages statistics (twelfth ICLS, 1973).

Compilation guidance for labour market statistics

2.47. Some examples of compilation guidance for the labour market statistics include:

a) *Surveys of economically active population, employment and underemployment: An ILO manual on concepts and methods* (ILO, 1990);

b) *Current International Recommendations on Labour Statistics* (ILO, 2000);

c) *The European Union labour force survey—Methods and definitions—2001* (Eurostat, 2003).

Data sources and methods

2.48. Household surveys, possibly in the form of a labour force survey, are the main source for unemployment information, as well as self-employment and employment in the informal sector; whereas administrative records, such as unemployment benefit recipients and new requests, can serve as an additional source.

2.49. Employment by economic activity in the formal sector is usually better captured through business surveys, as are hours worked and hourly wage rate. Depending on how well the administrative records are suited for statistical purposes, registers such as those based on employment services, pension schemes, social security and tax systems, and vocational education and training programmes provide statistics for persons covered by the scheme or register concerned, for reference periods of one month, quarter or year.

e) External sector

2.50. The monitoring of the transactions and positions held vis-à-vis the rest of the world is represented by the balance of payments (BOP) and the international investment position (IIP). The former summarizes transactions between residents and non-residents, while the latter consists of a statement of the value of financial assets and liabilities of residents of an economy in relation to non-residents. These two comprehensive statements are complemented by more detailed account of transactions and positions in official international reserves and external debt. These have become indispensable tools in assessing the external vulnerability at the national and global level.

2.51. The monitoring of merchandise trade data serves as yet another tracking category for external trade in terms of cross border physical movement of goods. As such it is another frequent and more detailed indicator of developments in the current account of the balance of payments.

Standards for external sector statistics

2.52.   The current standard for BOP and IIP is the *Balance of Payments and International Investment Position Manual, Sixth Edition* (BPM6) (IMF, 2009), which updated the *Balance of Payments Manual, Fifth Edition* (BPM5) (IMF, 1993). International trade statistics follows the *International Merchandise Trade Statistics: Concepts and Definitions 2010* (IMTS 2010) (United Nations, 2011), for imports and exports of products.

Compilation guidance for external sector statistics

2.53.   Compilation guidance for international trade statistics is available in the following manuals:

a)   *Manual on Statistics of International Trade in Services* (MSITS 2010) (United Nations et al., 2011) for external trade in services;

b)   *Manual on Statistics of International Trade in Services 2010 Compilers Guide* (United Nations, 2014);

c)   *International Merchandise Trade Statistics: Compilers Manual, Revision 1* (IMTS 2010-CM) (United Nations, 2013);

d)   *International Merchandise Trade Statistics: Supplement to the Compilers Manual* (United Nations, 2008).

2.54.   As for BOP, IIP, international reserves and external debt; the most relevant compilation guides include:

a)   *Balance of Payments and International Investment Position Compilation Guide* (IMF, 2014);

b)   *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* (IMF, 2009, 2013);

c)   *External Debt Statistics: Guide for Compilers and Users, 2013 Edition* (2013 EDS Guide) (IMF et al., 2013).

Data sources and methods

2.55.   International merchandise trade statistics have their main source in customs declarations, but these are supplemented by non-customs data sources such as other types of administrative data and enterprise surveys. Some other specific BOP enterprise surveys need to be conducted to capture information according to the principle of ownership as prescribed in the BPM6.

2.56.   As for international trade in services, total values of freight and insurance costs, if available through the merchandise trade system, can be used to estimate the purchase of freight and insurance services. Also, a bank international transactions reporting system (ITRS) can be used for the compilation of trade in services statistics and is likely to have good coverage across the full range of services, but there may be challenges regarding undercoverage and the timing of transactions.

2.57.   Specific household and business surveys are necessary for some BOP and IIP measures, as are some other official and administrative data sources (for the general government sector and central bank and data gathered by government institutions as a by-product of carrying out their various functions). Counterpart data from international databases or obtained through agreement can also be used, usually for cross checks.

2.58.   Given the comprehensive coverage of the IMF's Reserves Data Template, various data sources need to be tapped to collect the requisite information. Close collaboration between the monetary authorities and other relevant government agencies is a prerequisite for timely and accurate reporting of the template data. For example, amortization schedules are good data sources for deriving information on gross foreign currency outflows and inflows related to some repayments and instalments on loans and associated interest payments. Countries also can draw on the detailed public sector external debt data that they compile, where appropriate. Flow of funds accounts represent yet another good data source.

2.59.   For external debt, information can be compiled from a variety of sources, using a range of methods. Statistics can be collected from the debtor, from the creditor or indirectly through information from financial intermediaries in the form of surveys, regulatory reports, and/ or from other government administrative records. However, a precondition for reliable and timely statistics is that the country has a strong and well-organized institutional setting for the compilation of statistics on public and private debt.

f)   Financial corporations sector

2.60.   The financial corporations sector is described by monetary and financial statistics. Monetary statistics monitor the positions and transactions of the assets and liabilities of an economy's financial corporations sector. Financial statistics cover the stock positions and flows of financial assets and liabilities between all sectors of the economy and between the sectors of the economy and the rest of the world.

2.61.   The analytical benefit of financial statistics is the understanding of the interrelations between the subsectors of the financial corporations sector and between the financial corporations sector and the other sectors of the economy and non-residents.

Standards for financial corporations sector statistics

2.62.   The standard for compiling monetary and financial statistics is the *Monetary and Financial Statistics Manual and Compilation Guide* (MFSMCG) (IMF, forthcoming), which updates the previous standard, the *Monetary and Financial Statistics Manual* (IMF, 2000) and a previous compilation guide (mentioned below), taking into account the 2008 SNA and the BPM6.

Compilation guidance for financial corporations sector statistics

2.63.   The compilation guide being updated to be aligned with the 2008 SNA is the *Monetary and Financial Statistics: Compilation Guide* (IMF, 2008), whereas another up-to-date compilation guide is the publication *Financial Production, Flows and Stocks in the System of National Accounts* (United Nations and European Central Bank, 2015).

2.64.   Issues more specific to equities and debt securities are dealt with in the *Handbook on Securities Statistics* (BIS, ECB and IMF, 2015).

2.65.   External debt is dealt with in the aforementioned *External Debt Statistics: Guide for Compilers and Users, 2013 Edition*, whereas public debt specifically, in the *Public Sector Debt Statistics: Guide for Compilers and Users* (IMF et al., 2013).

2.66.   A reference guide on the financial corporations sector can be found in the publication *Financial Sector Assessment—A Handbook* (IMF and World Bank, 2005). It presents an overall analytical framework for assessing financial system stability and developmental needs, providing broad guidance on approaches, methodologies and techniques of assessing financial systems.

Data sources and methods

2.67.　For analytical purposes, the three main financial corporations subsectors, i.e., monetary financial institutions (MFIs), insurance corporations and pension funds, and the remaining financial corporations, may need to be shown separately. For the financial corporations sector, it may also be useful to distinguish non-MMF investment funds from other financial institutions. Data sources for monetary statistics include the central bank survey, the other depository corporations survey and the other financial corporations survey.

2.68.　Source data from balance sheets of monetary financial institutions are usually rather detailed in terms of deposits, loans, debt securities and shares, with corresponding breakdowns by original maturity, currency denomination and counterpart sector. These data allow the compilation of monetary aggregates and the main counterparts to broad money.

2.69.　Timely balance sheet data from supervisory authorities may also be available on insurance corporations and pension funds and on other financial corporations like non-MMF investment funds. However, the data do not cover those financial corporations that are not supervised. Such data may be collected by surveys carried out by central banks or NSOs.

2.70.　Statistical data on issues and holdings of debt securities and equity securities of various institutional sectors are sometimes derived from security-by-security databases. Moreover, data taken directly from financial corporations may be supplemented by data taken from counterpart sectors, such as data on loans granted by financial corporations to general government, to non-financial corporations or to the rest of the world.

2.71.　To compile institutional sector financial accounts, various statistical sources need to be used, most of which are initially collected for other purposes. These sources are usually high-frequency data taken from monetary and financial statistics, BOP and IIP statistics, or government finance statistics. Advanced systems of accounts also integrate data on securities holdings from corporate balance sheets or from household surveys, if these are timely and detailed enough.

g)　General government sector

2.72.　The scope of government sector statistics equates to general government operations, which covers central, state or provincial and local governments, all non-market non-profit institutions controlled by government units and social security funds. It may be further extended with public enterprises to constitute the public sector. The statistics relate to revenue, expenditure, balance, and where relevant/feasible, domestic (with a bank/non-bank breakdown) and foreign financing.

Standards for general government sector statistics

2.73.　The standard for the general government sector statistics is the *Government Finance Statistics Manual 2014* (GFSM 2014) (IMF, 2014), which replaced the previous 2001 version, referred to as GFSM 2001. It describes a specialized macroeconomic statistical framework (the GFS framework) designed to support fiscal analysis. The manual provides the economic and statistical reporting principles to be used in compiling the statistics and guidelines for the presentation of fiscal statistics within an analytic framework that includes appropriate balancing items. The changes to GFSM 2001 incorporated in the GFSM 2014 can broadly be summarized as methodological changes agreed to in the update of the 2008 SNA, clarifications on existing methodological guidelines and presentational changes.

Compilation guidance for general government sector statistics

2.74.   The *Quarterly Government Finance Statistics Guide for Compilers and Users* (IMF, 2013) provides guidance to national data compilers on how to prepare and publish comprehensive and timely (quarterly) fiscal data for the general government. Guidance on how to address issues on the compilation of government financial statistics which are relevant to developing countries is also provided in the *Government Finance Statistics: Compilation Guide for Developing Countries* (IMF, 2011). Additional compilation guidance specific to short-term statistics can be found in the *Manual on Quarterly Non-Financial Accounts for General Government* (Eurostat, 2011), the *Manual on Sources and Methods for Quarterly Financial Accounts for General Government* (Eurostat, 2008) and the *Manual on Compilation of Taxes and Social Payments on a Quarterly Basis* (Eurostat, 2002).

2.75.   Some compilation documents available have been written with the GFSM 2001 in mind, and at the time this handbook was being drafted no GFSM 2014-updated versions were available. These documents are available on the IMF website.[27]

[27] www.imf.org/external/pubs/ft/gfs/manual/comp.htm.

2.76.   In the context of government sector debt, two relevant compilation guides are the *Manual on Government Deficit and Debt—Implementation of ESA 2010, 2014 Edition* (Eurostat, 2014) and the above-mentioned *Public Sector Debt Statistics: Guide for Compilers and Users* (IMF et al., 2013).

Data sources and methods

2.77.   Quarterly data on the general government non-financial accounts must be based, as much as possible, on direct information available from basic sources. These include, for example, public accounts or reports and other administrative sources, sometimes from line ministries. These can be completed by coverage and/or conceptual adjustments, if needed.

2.78.   Quarterly general government financial accounts data can complement direct sources (including social security schemes) with indirect ones, such as BOP statistics, money and banking statistics, securities issues statistics and others. The Central Bank, the Ministry of Finance and other regulatory agencies may compile some of these statistics.

2.79.   Public sector debt statistics can be compiled by centralized or decentralized agencies. Data sources can be categorized in four main types: debt office(s), balance sheets, questionnaires and periodic surveys, and other sources. Source data systems, in turn, can be classified in four types: accounting systems; financial management systems; debt management, recording and reporting systems; and other systems.

h)   Household sector

2.80.   This data category contains statistics on total disposable income, total debt, debt-services and principal payments and other statistics as relevant, such as defaults on home mortgages, credit card debt and car loans. The household consumer is one of the major drivers of growth, as the household disposable income determines the present and future capacity to meet debt service payments against outstanding debt. This debt is mainly concentrated on home mortgages, credit card debt and car loans.

Standards for household sector statistics

2.81.   The ICLS Resolution Concerning Household Income and Expenditure Statistics (seventeenth ICLS, 2003) set out international recommendations concerning household income and expenditure surveys.

2.82.   The *Canberra Group Handbook on Household Income Statistics*, second edition (Canberra Group Handbook) (UNECE, 2011), in turn, provides a consolidated reference for those involved in producing, disseminating or analysing income distribution statistics. It updates the *Expert Group on Household Income Statistics—The Canberra Group: Final Report and Recommendations* (Canberra Group, 2001).

Compilation guidance for household sector statistics

2.83.   Household income is only one dimension of household economic well-being. Both income and wealth determine people's consumption possibilities, while low levels of either income or wealth may not always imply a low level of consumption, of which the recent crisis is a telling example. As a response for the need of an integrated analysis of household income, consumption and wealth, the OECD set up an Expert Group on Household Income, Consumption and Wealth Statistics, which developed a *Framework for Statistics on the Distribution of Household Income, Consumption and Wealth* (OECD, 2013) and issued *Guidelines for Micro Statistics on Household Wealth* (OECD, 2013).

2.84.   Specific methodology and guidance on household surveys can be found in the publications: *Household Budget Survey in the EU: Methodology and recommendations for harmonisation* (Eurostat, 2003); *Household Surveys in Developing Countries and Transition Countries, Implementation and Analysis* (United Nations, 2005); and *Survey Data on Household Finance and Consumption—Research Summary and Policy Use* (European Central Bank, 2009).

Data sources and methods

2.85.   The measure of household disposable income at national level has to be obtained from quarterly household surveys that are representative for the nation. Additional administrative sources can be used, such as personal income registers, tax and/or social benefit records, if applicable and suitable.

2.86.   Total debt can be obtained in part from depository surveys which traditionally have a monthly or quarterly frequency. These surveys have to be extended to other financial corporations if a large share of credit has been extended by those institutions.

i)   Non-financial corporations sector

2.87.   This data category contains statistics on profits, total debt, debt service and principal payments and other statistics as relevant, such as net foreign exchange exposure to equity and the number of applications for protection from creditors.

2.88.   Profit and debt data (including service and principal payments) can help assess the sustainability of the corporate sector in meeting their debt obligations, while foreign exchange risk adds extra information on its vulnerability.

Standards for non-financial corporations sector statistics

2.89.   This set of statistics refers to the profit and debt aspects of non-financial corporations. The reference for entrepreneurial income, a proxy for profit, is the 2008 SNA. The reference for debt in general is the aforementioned *Handbook on Securities Statistics* (BIS, ECB and IMF, 2015).

Compilation guidance for non-financial corporations sector statistics

2.90.   As with the standards, relevant compilation guidance for this set of statistics consists of publications that have been mentioned in the previous sections, such as the *Quarterly Non-Financial Sector Accounts—European Inventory of Sources and Methods* (Eurostat, 2010), the

Methodology of short-term business statistics—Interpretation and guidelines (Eurostat, 2006) and the *Financial Production, Flows and Stocks in the System of National Accounts* (United Nations and European Central Bank, 2015). They cover specific aspects of this indicator set within a wider subject coverage.

Data sources and methods

2.91.   The main data sources for non-financial corporations income statistics are business surveys and administrative data.

2.92.   As for debt and foreign currency exposure, surveys of the financial corporations sector in combination with the external debt systems should cover the domestic and external debt and its debt servicing. Another source is monetary and financial statistics. Business surveys can act as a supplementary source for financial aspects of non-financial corporations.

j)   Financial market

2.93.   This data category contains interest rates, exchange rates, nominal and real effective exchange rate, stock market index, stock market capitalization, long-term government bond rate and other statistics as relevant, such as spreads between interest rates.

2.94.   The importance of these statistics can be summarized as follows: analysis of interest rates and the spreads between interest rates are used to develop yield curves which provide early warning signals through their forward-looking property upon which the central bank and government determine their macroeconomic policies, the exchange rate movements are near-term signals of international competitiveness which are closely guarded by the monetary authorities, and the stock market index and market capitalization are important real-time tracking indicators of the overall health of the economy.

Standards for financial market statistics

2.95.   The compilation of these statistics does not rely on any international statistical standard, partly because some of them are calculated by private rather than government agencies. Rather, their compilation is based on the guidance and recommendations in the publications which are described below.

Compilation guidance for financial market statistics

2.96.   Information on the types of interest rates and forward exchange rates to disseminate can be obtained from *The Special Data Dissemination Standard: Guide for Subscribers and Users* (IMF, 2013). Information on how to calculate nominal and real effective exchange rates can be obtained from the *International Financial Statistics*, which is published by the IMF. Stock market statistics such as share price indices and stock market capitalization are typically compiled by private sector organizations rather than government agencies. Information on the methods to calculate share price indices in OECD member countries can be obtained from *Main Economic Indicators—Sources and Methods* (OECD, 1998). Information on how to calculate stock market capitalization and the scope of companies which are included in the calculation of this statistic can be obtained from the World Development Indicators Online, which is maintained by the World Bank.

Data sources and methods

2.97.   Most of the financial market statistics are available on a daily basis from commercial resources, the central bank or another national authority. It is recommended that monthly averages or month-end measures are prepared and released quickly after the reference month.

k)   Real estate market

2.98.   Real estate market statistics include the residential property price index, new house sales and existing house sales statistics.

2.99.   The residential property price index aims to reflect changes in prices of dwellings. Their behaviour can be monitored for clues on real estate–related causes of macroeconomic and financial instability. The house sales statistics comprise the number of residential dwellings sold, as well as the transaction values.

Standards for real estate market statistics

2.100.   The Inter-Secretariat Working Group on Price Statistics (IWGPS) is responsible for price index standards and as such developed the *Handbook on Residential Property Prices Indices* (Eurostat et al., 2013).

Compilation guidance for real estate market statistics

2.101.   In the context of the Harmonised Index of Consumer Prices (HICP), Eurostat offers additional guidance on residential price indices through the *Detailed Technical Manual on Owner-Occupied Housing for Harmonised Index of Consumer Prices* (Eurostat, 2012) and the manual on *Owner-Occupied Housing Price Indices—House Price Indices* (Eurostat, 2013).

Data sources and methods

2.102.   Data on residential prices and home sales can be collected from administrative sources, such as property registers and tax authorities, but the adequacy of the source data has to be assessed for any needed adjustment. Mortgage lenders are another data source for these statistics, as on a lesser scale are real estate agents, newspaper listings and other expert opinion information, such as surveys of real estate agents organizations, other professional bodies and their members. When computing a residential property price index, care should be exercised when selecting weighting schemes, with due consideration given to whether an index will be stock or sales weighted.

l)   Economic sentiment

2.103.   This data category contains consumer confidence and business confidence indicators and composite business cycle indicators, which comprise leading, coincident and lagging indicators. These indicators provide essential information for economic surveillance, short-term forecasting and economic research.

Standards for economic sentiment indicators

2.104.   The compilation of these indicators does not rely on any international statistical standards. Rather, their compilation is based on the guidance and recommendations as described in the publications listed below. In addition, the composite business cycle indicators are computed using a variety of underlying indicators, many of which are compiled using the relevant international statistical standard.

Compilation guidance for economic sentiment indicators

2.105.   The *OECD System of Composite Leading Indicators* (OECD, 2012), along with accompanying documents,[28] provides a framework for economic sentiment indicators, which try to gauge early signals of turning points of economic activity. In particular, the *Handbook on Constructing Composite Indicators—Methodology and User Guide* (OECD, EU, 2008)[29] contains a set of technical guidelines that can help builders of composite indicators to improve the quality of their outputs.

[28]   See, for example, www.oecd.org /std/leading-indicators /41629509.pdf.

[29]   See www.oecd.org /std/42495745.pdf.

2.106. The Conference Board's *Business Cycle Indicators Handbook*, describes in detail the series in the Business Cycle Indicators report and database, and includes articles discussing the value and use of the cyclical indicator approach to construct composite leading, coincident and lagging indices as part of an analytic system designed to signal peaks and troughs in the business cycle. The leading, coincident and lagging indices are essentially composite averages of between 4 and 10 individual leading, coincident or lagging indicators. They are constructed to summarize and reveal common turning-point patterns in economic data in a clearer and more convincing manner than any individual component. Also included in the publication are articles describing the composite index methodology and major revisions to the leading index, unveiled by The Conference Board in December 1996, and January 2001.

2.107. Forthcoming guidance in the form of the *Handbook on Cyclical Composite Indicators* (Eurostat, United Nations, forthcoming) and the *Handbook on Economic Tendency Surveys* (United Nations, 2015) is being developed by the respective working groups of the United Nations Statistical Commission international programme of work on short-term statistics.[30]

2.108. Business tendency surveys are carried out to obtain qualitative information for use in monitoring the current business situation and forecasting short-term developments. The publication *Business Tendency Surveys—A Handbook* (OECD, 2003)[31] aims at showing how these surveys are designed and carried out, how the results are processed and how they can be used for economic analysis. Another publication, *A User Manual to the Joint Harmonised EU Programme of Business and Consumers Surveys* (European Union, 2014),[32] provides a thorough description of the harmonized surveys and of the method used by the European Commission to process survey results, and informs on when and where the results are published.

2.109. Another useful source is the Centre for International Research on Economic Tendency Surveys[33] (CIRET) which is a forum for discussion and application of new methodological developments on economic tendency surveys and their results. Its conferences, held every other year, provide a place for discussion and presentations (including country practices) on economic sentiment indicators. Papers presented in the conference are then published in the conference proceedings.

Data sources and methods

2.110. The business confidence indicators are based on business surveys which can cover a single economic activity like manufacturing or have a broader sector coverage including construction, retail trade and financial services. The consumer confidence surveys are based on household surveys. Nearly all the questions are of a qualitative nature. Answers obtained from the surveys are aggregated in the form of "balances". Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The balance series can then be used to build composite indicators.

[30] For more information, including annotated outlines, see United Nations document E/CN.3/2014/27 at http://unstats.un.org/unsd/statcom/doc14/2014-27-ShortTermEcoStats-E.pdf.

[31] See www.oecd.org/std/leading-indicators/31837055.pdf.

[32] See http://ec.europa.eu/economy_finance/db_indicators/surveys/documents/bcs_user_guide_en.pdf.

[33] www.ciret.org.

Box 2.1
Using Big Data to compile short-term statistics

Innovations in technology, widespread penetration of electronic devices and the rapid rise in the use of technology for social purposes all bring fundamental changes to the availability of real-time information. Such massive, highly dynamic and weakly structured data is commonly referred to as Big Data. The statistical community has recognized the potential use of Big Data for official statistics. The United Nations Statistical Commission therefore established in March 2014 a Global Working Group (GWG) mandated to provide strategic vision, direction and coordination of a global programme on Big Data for official statistics, to promote practical use of sources of Big Data for official statistics, while finding solutions for their challenges, and to promote capacity-building and sharing of experiences in this respect. The GWG acknowledges that using Big Data for official statistics is an obligation for the statistical community based on the fundamental principle to meet the expectation of society for enhanced products and improved and more efficient ways of working.

The potential of Big Data sources resides in their timely (sometimes real-time) availability of large amounts of data. Thus, Big Data offer the opportunity to produce more timely short-term statistics by drastically reducing the processing and calculating processes, and the ability to do so on a rolling basis. For example, rather than it taking several weeks to produce quarterly statistics such as GDP, it might take a few minutes or hours. In this sense, Big Data offer the possibility for "nowcasting"—the prediction of the present. Further, traditional data sources, such as household and business surveys are often costly and slow in the production of statistics. In addition, introducing new household and business surveys to collect data for compiling short-term statistics may result in increased respondent burden. Thus, Big Data could supplement, reduce or replace such data collections and reduce respondent burden.

Examples of the use of Big Data to compile short-term statistics include the use of:

- Facebook and Twitter data to compile the consumer confidence index in the Netherlands;

- Scanner data to calculate the CPI in many European countries;

- Satellite imagery and other geospatial information by Australia, China and Colombia to compile agriculture statistics;

- Network data such as search engine results by Italy and Slovenia to compile employment statistics.

However, the statistical community is conscious of the fact that in order to be able to take advantage of these innovative data sources, it needs to adequately address issues pertaining to methodology, quality, technology, legislation, privacy, management and finance. It is also of utmost importance to create an environment where public trust in the use of Big Data for official statistics is established and where privacy and confidentiality of personal information can be assured.

Metadata structure for the data template for short-term statistics

A. Introduction

3.1.   This chapter provides an introduction to metadata in section B, presents the need for statistical metadata in section C and provides an overview of different metadata standards in section D. It then discusses in section E the metadata structures which are relevant for short-term statistics and highlights examples of metadata that can be applied to the data template for short-term statistics. It notes that the ideal metadata structure for short-term statistics should be based on the SDMX standard, because of the suitability of SDMX to time series data and the focus it has on supporting data exchange.

B. Introduction to metadata

3.2.   Generally speaking, metadata is defined as descriptive data about an object.[34] Data become metadata when a descriptive relationship is revealed between the data (now metadata) and the target objects. As such, metadata describe other items of content. Traditional examples of metadata are catalogues and card registries that may describe books in libraries, physical assets of the institutions, etc.[35] Similarly, metadata for an image would consist of the technical parameters of the pictures, the size, resolution and other pieces of information, and metadata for text could contain information about the author, language, length, date of creation, summary and technical information about the document, such as the ISBN number. Other items that we encounter in our day-to-day life, such as web pages, software and electronics, have metadata attached to them.

3.3.   More specifically, statistical metadata are data *about* statistical data, and they comprise data and other documentation that describe statistical data in a formalized way.[36] Statistical metadata also outline the processes and the tools involved in the production and usage of the data. Therefore statistical metadata describe statistical data in all phases of its production. Metadata have two basic functions.[37] The first is to uniquely and formally define the content and links between objects and processes in the statistical information system. The second is to define all related technical parameters.

3.4.   Since statistical metadata cover a wide range of dimensions—data about concepts, processes and tools involved in the process, as well as production—they can be categorized using several frameworks. For instance, one of the approaches presented within the Common Metadata Framework—a United Nations initiative to help statistical organizations to choose the right standards, models and approaches in developing their metadata systems—classifies metadata based on the different phases of the statistical business process.[38]

[34] 2012, ISO/IEC CD 11179-1 Information Technology—Metadata Registries (MDR)- Part 1: Framework Ed. 3. Retrieved, 23 April 2014 from http://jtc1sc32 .org/doc/N2201-2250/32N2224T-text_for_ballot-CD_11179-1.pdf.

[35] ESCWA, 2011, Handbook on Statistical Metadata for the ESCWA Region. Beirut.

[36] For a compendium of metadata common vocabulary, see http:// unstats.un.org/unsd/dnss/docs-nqaf/04_sdmx_cog_annex_4_ mcv_2009.pdf.

[37] https://statswiki.unece.org /display/VSH/2.++The+role+ of+a+statistical+metadata+ system.

[38] https://statswiki.unece .org/pages/viewpage .action?pageId=41713672.

3.5.   Based on such a classification, the first type of metadata contains the description, definitions, classifications and units of measurement of statistical data and variables. The second type of metadata describes statistical data quality. It encompasses statistical method description, relevance of the data, validity, reliability and accuracy of data. The third type of metadata consists of information about producers, publication information, field or subject-area glossary, and keywords pertinent to the data. The final type of metadata consists of information about the technical process as well as the conceptual process of data production. Metadata about the technical process incorporate information on data collection, data management and data dissemination, allowing the user to track the data production phase by phase. Metadata about a conceptual process consist of information such as minimum or maximum values of the data and variables.

[39] ESCWA (2011).

3.6.   An alternative framework that follows the Electronic Data Interchange framework classifies metadata in terms of administrative metadata, structural metadata, conceptual metadata/methodological metadata and footnotes.[39] Metadata, particularly the ones that describe techniques and methods, can also be classified according to whether they describe methodologies ex ante (how they should be applied) or ex post (how they were applied).

C.   The need for statistical metadata

3.7.   The provision of metadata—outlining concepts and definitions and describing methods used in their collection, compilation, transformation, revision practices and dissemination—is an essential element in the dissemination of all statistics. The primary need for metadata stems from the principle of transparency. Metadata lends transparency to the statistics so that the typical end user can make an informed assessment of the indicator's value and relevance to his or her purpose.[40] This need for methodological transparency is also strongly aligned with the United Nations Fundamental Principles of Official Statistics.[41]

[40] Ibid.

[41] http://unstats.un.org/unsd/dnss/gp/fundprinciples.aspx.

3.8.   The provision of adequate metadata is critical for integrating individual statistical areas. As a particular example, integrating demographic, social, economic and environmental data has been possible owing to metadata systems that allow the recording of concepts and definitions, and methods of data integration.[42] This enables statisticians to verify their cross-domain compatibility and enables users to verify the relevance of the results. Additionally, in order to achieve cost efficiency, national statistical offices combine data from various sources rather than one single survey. This involves the use of administrative records, business registers and traditional surveys, and this is not possible without detailed metadata that allow for the verification of concepts, definitions and their consistency.

[42] ESCWA (2011).

3.9.   The need for comprehensive metadata has become even more critical in recent years, given the extent of information sharing and increased accessibility of data through dissemination on the Internet.[43] In this situation, appropriate metadata not only allow the user of statistics to interpret, analyse and understand the data; they also help them identify, locate and retrieve additional statistical data of possible relevance. Process metadata allow the evaluation of the processes that occur within statistics production, identifying room for process improvement and overall increases in efficiency. Process metadata can also help train staff or replicate the parts of the data production process smoothly.

[43] www.bls.gov/ore/pdf/st000040.pdf.

D.   Metadata standards

3.10.   There are several metadata statistical standards that are used by NSOs worldwide; this section will describe some of the important ones.

D.1. Dublin Core and the Dublin Core Metadata Initiative

3.11.   The Dublin Core is a standard for metadata established by an international, cross-disciplinary group of professionals from librarianship, computer science, text encoding, the museum community and other related fields of scholarship and practice. It was conceived to facilitate the search for online information not only by specialists in resource description but also by non-specialists. This feature has been the starting point of the project. The origin of the name "Dublin" is a 1995 invitational workshop in Dublin, Ohio, and "Core" because its elements are broad and generic, usable for describing a wide range of resources.[44]

3.12.   The Dublin Core standard includes two levels: Simple and Qualified. Simple Dublin Core comprises 15 elements; Qualified Dublin Core includes three additional elements (Audience, Provenance and Rights Holder), as well as a group of element refinements (also called qualifiers) that refine the semantics of the elements in ways that may be useful in resource discovery.[45]

3.13.   The Dublin Core metadata element set is a vocabulary of 15 properties for use in resource description:

Content	Intellectual property	Identification
• Coverage	• Author/creator	• Date
• Description	• Contributor	• Format
• Language	• Rights	• Identifier
• Relation		• Type
• Source		
• Subject		
• Title		

3.14.   The main Dublin Core metadata elements are optional, they may be repeated and the order of the elements are not important and its syntax independent. Most other metadata standards, including the ones that will be discussed later in this section comply with the Dublin Core.[46] It is widely used for cross-domain resource discovery metadata and is referenced directly or indirectly in other standards.

D.2. Data Documentation Initiative

3.15.   The Data Documentation Initiative (DDI) is an effort to create an international standard for describing data from the social, behavioural and economic sciences. Expressed in XML, the DDI metadata specification supports the entire research data life cycle. DDI metadata accompany and enable data conceptualization, collection, processing, distribution, discovery, analysis, repurposing, and archiving.[47] Its aim is to provide a straightforward means to record and communicate to others all the salient characteristics of micro-data sets. The DDI specification is a major transformation of the once-familiar electronic "code book", which retains the same set of capabilities but greatly increases the scope and rigour of the information.[48] It is now the project of an alliance of institutions in North America and Europe. The member institutions comprise many of the largest data producers and data archives in the world. An important goal of the initiative is to become an ISO standard. The most recent version of the

[44] www.dublincore.org.

[45] http://dublincore.org /documents/usageguide/.

[46] https://statswiki.unece.org /display/VSH/Dublin+Core.

[47] www.ddialliance.org/training /why-use-ddi.

[48] ESCWA (2011).

DDI specification is version 3.2. By creating a consistent framework for *microdata* documentation, the DDI has the following features:

- **Interoperability** DDI-compliant documentation can be exchanged and transported seamlessly, and applications can be generically written, because the documents are homogeneous.

- **Richer content** The DDI provides data analysts with broader knowledge about data content, through a comprehensive set of elements that can describe micro-data sets as completely and as thoroughly as possible.

- **Multipurpose documentation** A DDI codebook can be restructured to suit different applications, because it contains all the information necessary to produce different types of output.

- **Online analytical capability** DDI documents can be easily imported into on-line analysis systems, rendering data sets more readily usable by a wider audience. This is made possible because the DDI markup extends down to the variable level and provides a standard uniform structure and content for variables.

- **Search capability** Field-specific searches across documents and studies are made possible because each of the elements in a DDI-compliant codebook is tagged in a specific way.

D.3. Metadata registries (ISO/IEC 11179)

3.16.   The ISO/IEC 11179 is a standard for describing and managing the meaning and representation of data. The basic semantic unit is a concept. The standard is written in six parts, and the second edition is the current version.[49] The DDI and Statistical Data Metadata Exchange (SDMX) use ISO/IEC 11179 for their description of data and their use of concepts as a basic semantic unit.

[49] https://statswiki.unece .org/display/VSH /Metadata+Registries+-+ ISO+IEC+11179.

D.4. Common Warehouse Metamodel

3.17.   The Common Warehouse Metamodel (CWM) enables easy interchange of warehouse and business intelligence metadata between warehouse tools, warehouse platforms and warehouse metadata repositories in distributed heterogeneous environments. CWM is based on three key industry standards: Unified Modeling Language, the Meta Object Facility, a metadata repository standard, and XML Metadata Interchange, a metadata interchange standard.

[50] www.iso.org/standard/53798 .html.

D.5. Geographic information (ISO 19115-1) [50]

3.18.   The ISO 19115-1 defines the schema required for describing geographic information and services by means of metadata. It provides information about the identification, extent, quality, spatial and temporal aspects, content, spatial reference, portrayal, distribution and other properties of digital geographic data and services. This standard is primarily applicable to geographic data sets, data set series and individual geographic features, and feature properties, and it defines:

- Mandatory and conditional metadata sections, metadata entities and metadata elements.

- The minimum set of metadata required to serve most metadata applications (data discovery, determining data fitness for use, data access, data transfer and use of digital data and services).

- Optional metadata elements to allow for a more extensive standard description of resources, if required.

- A method for extending metadata to fit specialized needs.

3.19.   Although ISO 19115-1 is applicable to digital data, its principles can be extended to many other forms of geographic data such as maps, charts and textual documents, as well as non-geographic data. Certain conditional metadata elements might not apply to these other forms of data.

D.6. Enhanced General Data Dissemination System, Special Data Dissemination Standard and Special Data Dissemination Standard Plus

3.20.   The IMF has established the enhanced General Data Dissemination System (e-GDDS), Special Data Dissemination Standard (SDDS) and Special Data Dissemination Standard Plus (SDDS Plus) to guide IMF member countries in the dissemination of their economic and financial data. The e-GDDS[51] applies to all IMF members, the SDDS[52] applies to those member countries that have or are seeking access to international capital markets, and the SDDS Plus[53] builds on the SDDS to assist member countries with regard to the publication of comprehensive, timely, accessible, and reliable economic and financial statistical data in a world of continuing economic and financial integration. The SDDS was approved by the IMF Executive Board in March 1996, the e-GDDS in July 2015 to replace the GDDS[54] and the SDDS Plus in 2012.

3.21.   The e-GDDS framework is built around four dimensions—data characteristics, quality, access, and integrity—and is intended to provide guidance for the overall development of macroeconomic, financial, and sociodemographic data. The framework takes into account, across a broad range of countries, the diversity of their economies and the developmental requirements of many of their statistical systems.

3.22.   The data dimension includes coverage, periodicity (i.e., the frequency of compilation) and timeliness (i.e., the speed of dissemination). The data dimension addresses the development, production, and dissemination of two interrelated classes of data: (a) comprehensive frameworks for each of the four economic and financial sectors (real, fiscal, financial and external) and (b) indicators for each of these sectors, plus the sociodemographic data.

3.23.   The SDDS framework has similar dimensions; however, SDDS standards must be observed by countries that subscribe to it. The e-GDDS provides recommendations on good practice, based on current practices of agencies compiling and disseminating data in countries. Recommended good practices for coverage, periodicity and timeliness are summarized for comprehensive frameworks and data categories and indicators. The primary focus of the e-GDDS is on improvement in data quality by providing a process for evaluating needs for data improvements and setting priorities toward that end. The e-GDDS metadata, therefore, identify the national authorities' plans for improvement in the short and medium term, as well as any associated needs for assistance in implementing these plans. This stands in contrast with the SDDS, where the focus is on data dissemination in countries that in general already meet high data-quality standards. In addition to macroeconomic and financial data (for the real, fiscal, financial and external sectors) covered in the SDDS, the e-GDDS covers sociodemographic data (population, health, education and poverty).[55] The SDDS Plus aims to include economies

[51] http://dsbb.imf.org/Pages /GDDS/WhatIsGDDS.aspx.

[52] http://dsbb.imf.org/Pages/SDDS /Overview.aspx.

[53] http://dsbb.imf.org/Pages/SDDS /Overview.aspx?sp=y.

[54] The key modifications of e-GDDS to GDDS are: (i) aligning the e-GDDS data categories with the common indicators used by the IMF for surveillance, (ii) improving access to data by incorporation of a National Summary Data Page (NSDP) built on a global standard open format and (iii) setting a path to achieving higher dissemination standards by the introduction of dissemination thresholds.

[55] The differences between the e-GDDS and SDDS are summarized on http://dsbb.imf .org/pages/GDDSDiffSDDS.aspx.

that play a leading role in international capital markets and has institutions that are interconnected; through channels such as interbank lending, security lending, repurchase agreements, and derivatives contracts. The SDDS Plus thus goes beyond the focus of the SDDS on access to international capital markets by putting an emphasis on countries that have systematically important financial sectors that are integral to the working of the international monetary system. Nevertheless, all SDDS subscribers can adhere to the SDDS Plus and are indeed encouraged to do so.

D.7. Statistical Data and Metadata Exchange (SDMX—ISO 17369)

3.24.   SDMX provides three types of statistical metadata standards: standards for data formats, standards for metadata, and a registry-based architecture to implement these standards and to exchange data between systems. One of the requirements of SDMX was the awareness of other metadata specifications such as the DDI. Any of the DDI metadata—which emphasizes archival metadata and microdata, rather than aggregate data—is exchangeable in an equivalent SDMX metadata format. This ensures inter-operability of metadata across namespaces.

3.25.   SDMX is a family of metadata standards rather than a unique standard. The very original parts of SDMX were standards for structure of interchange messages, but these were soon completed by guides of a less technical nature resulting in:

- SDMX technical standards (SDMX-EDI (GesMes TS) using UN-EDIFACT syntax and SMDX-ML using XML syntax);

- SDMX Content-oriented guidelines;

- SDMX tools.

3.26.   Focusing on time series and statistics, SDMX is the result of a joint effort by the Bank for International Settlements, the ECB, Eurostat, the IMF, the OECD, the United Nations and the World Bank to create an XML specification to support the exchange of aggregate data and metadata between international organizations and from national statistical offices to international organizations. SMDX standard is applicable in the dissemination of statistics, exchange of data between different phases, applying definitions and concepts from the content-oriented guidelines, navigating users through the data-focused websites.

3.27.   SDMX contains several important structures. They include: statistical presentation, unit of measure, reference period, institutional mandate, confidentiality, frequency of dissemination, dissemination format, accessibility of documentation, relevance, accuracy and reliability, timeliness and punctuality, comparability, coherence, data revision and statistical processing.

E.   Suggestions for metadata structure for short-term statistics

3.28.   Discussions in the Third International Seminar on Early Warning and Business Cycle Indicators, which was held in Moscow in 2010, showed that the contents of metadata differ among countries and also international organizations. In spite of a longer-term effort to harmonize the reference metadata, differences exist with regard to the structure and contents of the information available for statistical data. This can mainly be attributed to institutional factors. In country groupings where there is an effort to implement common or highly coordinated policies, the imperative of having highly harmonized and comparable statistical data is reflected also in the level of harmonization of their metadata.

3.29.   For example, the statistics of the EU member States are very much harmonized. The production of the statistical data is regulated by EU legislation, which specifies in considerable detail how the statistics should be compiled by the EU member States and also how the data collection and compilation systems should be designed. One of the tools for this harmonization is the quite detailed metadata requirements for European statistics both at Eurostat and for the individual EU member States. The EU metadata are thus Europe specific, and it would be expected that for other countries there would be differences in the metadata detail between countries reflecting national specificities in the production of the statistics.

3.30.   Additionally, metadata exist in different forms. One is a short description of the data, which is often attached directly to the tables containing the statistical data. This short description in the form of one sentence or one paragraph gives very basic information about the given statistical indicator. This type of metadata is available, for example, with the principal European economic indicators on the Eurostat web page or with economic indicators disseminated by international organizations. Another form is the detailed metadata ideally compiled according to international standards like SDDS or SDMX, which contains a structured methodological description of the data. In other cases, the detailed metadata follow less harmonized structures.

3.31.   This highlights a critical point—to be universally valid for all countries, the content of metadata can be only rather short and general. For detailed metadata, for example in the SDMX format, it is not possible to draft universally valid metadata. Such metadata would have to describe the specificities of different countries, and can only be meaningfully compiled at the country level.

3.32.   The option then is to suggest a metadata structure for short-term statistics which are based on the availability of the information for the different parts of the data template. Ideally, this structure should be based on the SDMX standard, because of the suitability of SDMX to time series data and the focus it has on supporting data exchange.

3.33.   The remainder of this chapter will provide three examples of metadata structure for short-term statistics. The first one, table 3.1, is based on Eurostat's short descriptions for selected principal European economic indicators and corresponding indicators in the IMF'S SDDS, to the extent they are applicable to some of the elements of the data template. The second example, presented in table 3.2 , shows a detailed metadata description following the SDMX format for various short-term statistics for industry, trade and services. The third example, in table 3.3, shows a basic metadata description following the SDMX format for the same short-term statistics in table 3.2.

3.34.   Other key suggestions[56] include disseminating metadata via a wide range of media including CD-ROMs and the Internet. Layered presentation of metadata is also recommended, progressing from summary findings to greater detail, with each layer using clear and precise text. Since there is strong evidence of the positive impact of making metadata publicly available, they should be available free of charge via the Internet. The metadata should be available not only in the national language, but when resources permit, in a widely used language such as English. In structuring metadata for different statistical domains on the basis of some classification, consideration should be given to the adoption of the CES classification of International Statistical Activities. Finally, national statistical agencies should structure their metadata for different statistical domains around a set of common metadata items such as those developed by the SDMX.

[56] ESCWA, Study on short-term economic indicators for the Arab region, New York, 2013.

Table 3.1

Short metadata description from Eurostat for some indicators in the data template for short-term statistics

Short-term statistic	Corresponding Eurostat indicator	Eurostat description	Corresponding SDDS indicator	SDDS description[a]
Index of industrial production by major division	Industrial production index	The industrial production index shows the output and activity of the industry sector. It measures changes in the volume of output on a monthly basis. Data are compiled according to the Statistical classification of economic activities in the European Community, (NACE Rev.2, Eurostat). Industrial production is compiled as a "fixed-base year Laspeyres type volume-index". The current base year is 2010 (Index 2010=100). The index is presented in calendar and seasonally adjusted form. Growth rates with respect to the previous month (M/M-1) are calculated from calendar- and seasonally adjusted figures while growth rates with respect to the same month of the previous year (M/M-12) are calculated from calendar-adjusted figures.	Production index/indices	The SDDS prescribes a production index—and where appropriate, several production indices—to track GDP on a more timely basis. The choice of the index (and its components) or indices depends on a country's economic structure—indices for industrial production are useful indicators for GDP in some countries, commodity production indices (for example, petroleum) in others, and indices on agricultural production, services or other key economic activities in still others. The index or indices selected for dissemination should be those most useful as an indicator for the country's production. The coverage of the index and its other characteristics should be noted in the country's metadata on the DSBB. An industrial production index, for example, is to cover the output of establishments in extractive activities, manufacturing, electricity, and gas and water supply. The tracking indicator should be based on a sound methodology. The metadata should note the differences between national practices and international or regional guidelines.
Production index for construction	Production in construction	The production in construction shows the output and activity of the construction sector. It measures changes in the volume of output on a monthly basis. Construction includes building construction and civil engineering. The construction sector in total corresponds to the NACE Rev.2 section F but the split between building construction and civil engineering is based on the Classification of types of Construction (CC1, CC2). Production in construction is compiled as a fixed "base-year Laspeyres-type volume index". The current base year is 2010 (Index 2010=100). The index is presented in calendar and seasonally adjusted form. Growth rates with respect to the previous month (M/M-1) are calculated from calendar and seasonally adjusted figures, while growth rates with respect to the same month of the previous year (M/M-12) are calculated from calendar-adjusted figures.	Production index/indices	See description for index of industrial production index.

Short-term statistic	Corresponding Eurostat indicator	Eurostat description	Corresponding SDDS indicator	SDDS description[a]
Consumer price index	Harmonised Indices of Consumer Prices (HICP)	Harmonised Indices of Consumer Prices (HICP) are designed for international comparisons of consumer price inflation. HICP are used for the assessment of the inflation convergence criterion as required under Article 121 of the Treaty of Amsterdam and by the ECB for assessing price stability for monetary policy purposes. The ECB defines price stability on the basis of the annual rate of change of the euro area HICP. HICP are compiled on the basis of harmonized standards, binding for all member States. Conceptually, the HICP are Laspeyres-type price indices and are computed as annual chain indices, which allow for weights changing each year. The common classification for HICP is the COICOP (Classification Of Individual Consumption by Purpose). A version of this classification (COICOP/HICP) has been specially adapted for the HICP. Subindices published by Eurostat are based on this classification. HICP are produced and published using a common index reference period (2015 = 100). Growth rates are calculated from published index levels. Indices, as well as both growth rates with respect to the previous month (M/M-1) and with respect to the corresponding month of the previous year (M/M-12) are neither calendar nor seasonally adjusted.	Consumer price index	A CPI, sometimes historically called "a retail prices index" measures the variation over time in the prices of goods and services that private households acquire, pay for or use for purposes of consumption. Countries may prepare several indices, differing, for example, with respect to geographic coverage (for example, urban versus rural), reference population (for example, whole population or a group, such as industrial workers) and item coverage. If there is more than one CPI, the index to be tracked for the SDDS should be the most widely used in the country. The metadata should note the statistical characteristics of the index, including its scope and limitations.

Table 3.1 (*continued*)

Short metadata description from Eurostat for some indicators in the data template for short-term statistics

Short-term statistic	Corresponding Eurostat indicator	Eurostat description	Corresponding SDDS indicator	SDDS description[a]
Producer price index	Industrial domestic output price index	The industrial domestic output price index measures the average price development of all goods and related services resulting from the activity of the industry sector and sold on the domestic market. The domestic output price index shows the monthly development of transaction prices of economic activities. The domestic market is defined as customers resident in the same national territory as the observation unit. Data are compiled according to the Statistical classification of economic activities in the European Community, (NACE Rev. 2, Eurostat). Industrial producer prices are compiled as a "fixed-base-year Laspeyres type price index". The current base year is 2010 (Index 2010 = 100). Indices, as well as both growth rates with respect to the previous month (M/M-1) and with respect to the corresponding month of the previous year (M/M-12) are presented in raw form.	Producer price index or whole-sale price index	A PPI measures the variation in the prices of the outputs of market and market-valued goods and services over time. A WPI measures the variation over time in the prices of items at the first important commercial transaction. Its concept broadly overlaps but is not identical to the concept of an intermediate consumption (input) price index. PPIs and WPIs differ across countries with respect to coverage of the economy (for example, whether inclusive of mining, construction, and services) and valuation (for example, whether inclusive of taxes net of subsidies on products, as in an input price index, such as for intermediate consumption or exclusive of net taxes on products, as in an output price index). If there is more than one PPI, the index tracked for the SDDS should be that most widely used in the country. The metadata for this data category should note the statistical characteristics of the index and whether they conform with internationally accepted statistical practices.
Unemployment rate	Unemployment rate	The unemployment rate represents unemployed persons as a percentage of the labour force based on the International Labour Office (ILO) definition. The labour force is the total number of people employed and unemployed. Unemployed persons comprise persons aged 15 to 74 who: - are without work during the reference week; - are available to start work within the next two weeks; - and have been actively seeking work in the past four weeks or had already found a job to start within the next three months. Data are presented in seasonally adjusted form.	Unemployment	Some countries prepare several measures of unemployment—for example, based on sample surveys of households or individuals, social insurance records or employment office statistics. For the SDDS, the measure to be disseminated should be the one that is most widely used in the country. The metadata for the Dissemination Standards Bulletin Board (DSBB) should note the statistical characteristics of the measure. The measure may be expressed in terms of the number of unemployed or the unemployed as a percentage of the labour force. The SDDS does not prescribe a definition of unemployment or its components; however, it notes as best practices the concepts, definitions, and classifications of employment and unemployment the ILO provides. Metadata for this data category should note differences between a country's practices and international guidelines.

Short-term statistic	Corresponding Eurostat indicator	Eurostat description	Corresponding SDDS indicator	SDDS description[a]
Employment total and by economic activity	Employment	Employment consists of both employees and self-employed, who are engaged in some productive activity that falls within the production boundary of the system (ESA 2010, 11.11). Employment covers employees and self-employed working for production units resident on the economic territory (i.e., the domestic employment concept). Employment is measured in number of persons without distinction according to full-time or part-time work. Growth rates with respect to the previous quarter (Q/Q-1) are calculated from seasonally adjusted figures while growth rates with respect to the same quarter of the previous year (Q/Q-4) are calculated from non-seasonal adjusted data.	Employment	Some countries compile several measures of employment, which may be based on sample surveys of households or individuals, establishment surveys or social insurance records. For the SDDS, the measure to be disseminated should be the one most widely used in the country. The metadata for the DSBB should note the statistical characteristics of the measure. The SDDS does not prescribe a definition of employment or its components; however, it notes as best practices the concepts, definitions, and classifications of employment and unemployment provided by the International Labour Organization (ILO). Metadata for this data category should note differences between a country's practices and international guidelines.
Hourly wage rate	Labour cost index	Labour cost index shows the short-term development of the total cost, on an hourly basis, for employers of employing the labour force. The index covers all market economic activities except agriculture, forestry, fisheries, education, health, community, social and personal service activities. Labour costs include gross wages and salaries, employers' social contributions and taxes net of subsidies connected to employment. The labour cost index is compiled as a "chain-linked Laspeyres cost-index" using a common index reference period (2012 = 100). The index is presented in calendar and seasonally adjusted form. Growth rates with respect to the previous quarter (Q/Q-1) are calculated from seasonally and calendar-adjusted figures while growth rates with respect to the same quarter of the previous year (Q/Q-4) are calculated from calendar-adjusted figures.	Wages/earnings	In the context of labour statistics, "wages" data comprise direct wages and salaries for time worked or work done, whereas earnings data (in cash and in kind) are broader, covering in addition remuneration for time not worked, bonuses, gratuities, and housing and family allowances paid by the employer to the employee. The series to be disseminated for SDDS purposes should be the series most widely used within the country. The series may show average earnings or time rates of wages (preferably accompanied by hours of work data consistent with the earnings/wages data). The scope of the series may differ from country to country. The metadata for the DSBB should describe the statistical characteristics of the measure, including its coverage. The SDDS does not prescribe a definition of wages or earnings; however, it notes as best practice the concepts, definitions, and classifications provided by the ILO. Metadata for this data category to be posted on the DSBB should note differences between a country's practices and international guidelines.
Gross debt of general government	General government debt	The indicator is defined (in the Maastricht Treaty) as consolidated general government gross debt at nominal (face) value, outstanding at the end of the year in the following categories of government liabilities (as defined in ESA 2010): currency and deposits, debt securities and loans. The general government sector comprises the subsectors: central government, state government, local government and social security funds.	General government debt	The SDDS includes, as an encouraged category, data on general government total gross debt, at nominal value, classified by debt instrument, currency of denomination, and residence of the creditor, as described in the PSDSG. In addition, the following memorandum items could be included: total debt securities at market value (which is also in the sectoral balance sheets) and a classification by remaining maturity of general government debt securities and loans. These items are a subset of the public sector debt statistics template adopted by the Task Force on Finance Statistics (TFFS) and the World Bank–IMF–OECD public sector debt statistics database. These data include some common elements with the sectoral balance sheets and external debt data requirements.

[a] More information can be obtained from IMF (2013c).

Table 3.2

Example of a detailed metadata description following the SDMX format—Industry, trade and services

Industry, trade and services (ei_is)
Reference Metadata in Euro SDMX Metadata Structure (ESMS)
Compiling agency: Eurostat, the statistical office of the European Union

For any question on data and metadata, please contact: EUROPEAN STATISTICAL DATA SUPPORT

Reference metadata

1. Contact	7. Confidentiality	13. Relevance	19. Data revision
2. Metadata update	8. Release policy	14. Accuracy	20. Statistical processing
3. Statistical presentation	9. Frequency of dissemination	15. Timeliness and punctuality	21. Comment
4. Unit of measure	10. Dissemination format	16. Comparability	
5. Reference Period	11. Accessibility of documentation	17. Coherence	Related Metadata
6. Institutional Mandate	12. Quality management	18. Cost and Burden	Annexes (including footnotes)

1. Contact	Top
1.1. Contact organization	Eurostat, the statistical office of the European Union
1.2. Contact organization unit	G3: Short-term statistics and tourism
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG

2. Metadata update	Top
2.1. Metadata last certified	23/01/2015
2.2. Metadata last posted	23/01/2015
2.3. Metadata last update	03/02/2016

3. Statistical presentation	Top
3.1. Data description	

Industry, Trade and Services statistics are part of short-term statistics (STS). They give information on a wide range of economic activities according to **NACE Rev. 2** classification (Statistical Classification of Economic Activities in the European Community). The industrial import price indices offer information according to the CPA classification (Statistical Classification of Products by Activity in the European Economic Community). Construction indices are broken down by classification of types of construction (CC).

All data under this heading are **index** data. **Percentage changes** are also available for each indicator.

The index data are presented in the following forms:

• Unadjusted

• Calendar adjusted

• Seasonally adjusted

Depending on the STS regulation, data are accessible **monthly** and **quarterly**. This heading covers the indicators listed below in four different sectors.

Based on the national data, Eurostat compiles EU and euro area infra-annual economic statistics. Among these, a list of indicators, called **Principal European Economic Indicators (PEEIs)** has been identified by key users as being of prime importance for the conduct of monetary and economic policy of the euro area. These indicators are mainly released through Eurostat's website under the heading Euro-indicators.

There are eight PEEIs contributed by STS and they are marked with * in the text below.

INDUSTRY

• Production index*

• Turnover index

• Producer prices (domestic output prices index)*

• Import prices index:* Total, euro area market, non–euro area market (euro area countries only)

• Labour input indicators: Number of persons employed, hours worked, gross wages and salaries

CONSTRUCTION

• Production index*: Total of the construction sector, building construction, civil engineering

• Labour input indicators: Number of persons employed, hours worked, gross wages and salaries

• Construction costs index

• Building permits indicators*: Number of dwellings

WHOLESALE AND RETAIL TRADE

• Volume of sales (deflated turnover)*

• Turnover (in value)

• Labour input indicators: Number of persons employed

SERVICES

• Turnover index*

• Producer prices (output prices)*

3.2. Classification system

NACE Rev.2 classification (Statistical Classification of Economic Activities in the European Community) is used for all the STS indicators, except Industrial Import Prices; for this indicator, the information is available according to **CPA classification** (Statistical Classification of Products by Activity in the European Economic Community). The split of the construction indicators into *building* and *civil* engineering is made based on CC classification (classification of types of construction).

3.3. Coverage—sector

INDUSTRY

The indicators in this sector cover economic activities listed in sections B to E of NACE (B-Mining and quarrying, C-Manufacturing, D-Electricity, gas, steam and air conditioning supply, E-Water supply, sewerage, waste management and remediation activities) and the import prices indicator covers products listed in Sections B, C and D of the CPA.

CONSTRUCTION

The indicators in this sector cover economic activities listed in section F of NACE (Construction). The breakdown into building and civil engineering required for certain indicators is based on CC classification.

WHOLESALE AND RETAIL TRADE

The indicators in this sector cover economic activities listed in section G of NACE (wholesale and retail trade; repair of motor vehicles and motorcycles).

SERVICES

The indicators in this sector cover economic activities listed in sections H, I, J, M and N of NACE (H-Transportation and Storage, I-Accommodation and food service activities, J-Information and communication, M-Professional, scientific and technical activities, N-Administrative and support service activities).

3.4. Statistical concepts and definitions

Detailed definitions of each indicator are described in the Commission Regulation 1503/2006.

PRODUCTION
The objective of the production index is to measure changes in the volume of output at close and regular intervals, normally monthly. It provides a measure of the volume trend in value added over a given reference period. The production index is a theoretical measure that must be approximated by practical measures.

Value added at basic prices can be calculated from turnover (excluding VAT and other similar deductible taxes directly linked to turnover), plus capitalized production, plus other operating income plus or minus the changes in stocks, minus the purchases of goods and services, minus taxes on products which are linked to turnover but not deductible plus any subsidies on products received. The division of production in construction between building construction and civil engineering is based on the classification of types of construction (CC).

TURNOVER
It is the objective of the turnover index to show the development of the market for goods and services.
Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice.

Turnover excludes VAT and other similar deductible taxes directly linked to turnover as well as all duties and taxes on the goods or services invoiced by the unit. The indices of domestic and non-domestic turnover require turnover to be split according to the first destination of the product based on the change of ownership. The destination is determined by the residency of the third party that purchased the goods and services. Non-domestic turnover is further subdivided into turnover dispatched to euro-zone countries and all other non-domestic turnover.

VOLUME OF SALES
The volume of sales represents the value of turnover in constant prices and as such is a quantity index. It is normally calculated as turnover at current prices, deflated by the deflator of sales.

PRODUCER PRICES (OUTPUT PRICES)
The producer prices are also known as output prices. However, although the STS Regulations use the term "output prices", in practice the most used term is "producer prices". The definition in this paragraph reflects the terminology used in the Commission Regulation 1503/2006.

The objective of the output price index is to measure the monthly development of transaction prices of economic activities.

The domestic output price index for an economic activity measures the average price development of all goods and related services resulting from that activity and sold on the domestic market. The non-domestic price index shows the average price development (expressed in the national currency) of all goods and related services resulting from that activity and sold outside of the domestic market. When combined, these two indices show the average price development of all goods and related services resulting from an activity.

It is essential that all price-determining characteristics of the products are taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination.

The indices of domestic and non-domestic prices require separate output price indices to be compiled according to the destination of the product. The destination is determined by the residency of the third party that has ordered or purchased the product. Output prices for the non-domestic market are further subdivided into output prices for products dispatched to euro-zone countries and all other output prices.

IMPORT PRICES
It is the objective of the import price indices to measure the monthly transaction price development of imported goods purchased from non-domestic areas by domestic residents. All the related services are excluded from the scope. It is essential that all price-determining characteristics of the products are taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions origin and destination. The non-domestic market is defined as third parties, which are not resident in the same national territory as the observation unit.

The indices of the import prices require a separate calculation according to the country of consignment of the product. The country of consignment is determined in a consistent way with customs procedures. Import prices are subdivided into imports from euro-zone countries and imports from other countries.

NUMBER OF PERSONS EMPLOYED
It is the objective of the index of number of persons employed to show the development of employment.

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit but who belong to it and are paid by it (e.g., sales representatives, delivery personnel, repair and maintenance teams).

Table 3.2 (*continued*)

Example of a detailed metadata description following the SDMX format—Industry, trade and services

HOURS WORKED

It is the objective of the hours worked index to show the development in the volume of work done. The total number of hours worked represents the aggregate number of hours actually worked for the output of the observation unit during the reference period.

WAGES AND SALARIES

It is the objective of the wages and salaries index to approximate the development of the wage and salaries bill. Wages and salaries are defined as the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including home workers), in return for work done during the accounting period, regardless of whether it is paid on the basis of working time, output or piecework and whether it is paid regularly.

CONSTRUCTION COSTS

The objective of the construction cost index is to show the development of costs incurred by the contractor to carry out the construction process. The cost indices are mandatory for new residential buildings (excluding residencies for communities). The component costs index (material costs and labour costs) shows the price developments of production factors used in the construction industry. Output price indices for construction can be used as an approximation for the construction cost variables.

BUILDING PERMITS: NUMBER OF DWELLINGS, SQUARE METRES OF USEFUL FLOOR AREA

The objective of the number of dwelling building permit index is to show the future development of construction activity in terms of unit numbers, while the objective of the useful floor area building permit index is to show the future development of construction activity in terms of volume.

A building permit is an authorization to start work on a building project. As such, a permit is the final stage of planning and building authorizations from public authorities prior to the start of work.

3.5. Statistical unit

The STS Regulations require the use of the following observation units:

- **KAU** (kind of activity unit) for the indicators in **industry** and **construction**;

- **Enterprise** for the indicators in **wholesale and retail trade** and **other services**.

In practice, however, several member States collect the information from the enterprises rather than from the KAU (data collection on the level of the KAU requires a greater degree of detail which is often not available, e.g., in administrative sources).

3.6. Statistical population

The statistical population comprises the observation units (KAUs or enterprises) operating in the NACE/CPA classes mentioned below.

INDUSTRY

- Production: sections B, C, D of NACE (D353 excluded)

- Turnover: sections B and C of NACE

- Import prices: Sections B, C, D of CPA (B0721, B09, C18, C2446, C254, C301, C303, C304, C33 not included)

- Labour input indicators (number of persons employed, hours worked, gross wages and salaries): Sections B to E of NACE (E37, E38 and E39 not included)

CONSTRUCTION

- Production: section F of NACE broken down to building construction and civil engineering according to classification of types of construction (CC)

- Building permits indicators:

- Number of dwellings: CC11 excluding CC113 (new residential buildings excluding residencies for communities)

- Square metres of useful floor: CC1 (buildings)

- Construction costs (construction costs, material costs and labour costs): CC11 excluding CC 113 (new residential buildings excluding residencies for communities)

- Labour input indicators (number of persons employed, hours worked, gross wages and salaries): section F

WHOLESALE AND RETAIL TRADE

Volume of sales (deflated turnover): section G of NACE (G45, G46, G47)

- Turnover (in value): section G of NACE (G45, G46, G47)

- Labour input indicators (number of persons employed): section G (G45, G46,G47, excluding G47.3)

SERVICES

- Turnover: sections H, I, J, M, N of NACE

- Producer prices (output prices): sections H, J, M, N of NACE

Detailed information on the level of detail of the data to be delivered by each country and therefore, on the target statistical population for each country, is available from the STS requirements, available here. The STS Regulation allows simplified reporting for small countries (below certain thresholds).

3.7. Reference area

Euro area and European Union, EU individual member States and EFTA countries. Data referring to candidate countries to the EU, and aggregates for the United States of America and Japan are also published, if available.

3.8. Coverage—time

Time coverage varies from series to series. Typically, time series cover the period back to 1998, the year the STS Regulation was adopted. Some countries have data for earlier years. Historical series for a limited number of indices are available back to the 1980s.

4. Unit of measure	Top

Indices, percentage changes (per cent, %).

5. Reference period	Top

INDUSTRY

- Production: Month
- Turnover: Month
- Producer prices (output prices): Month
- Import prices: Month
- Labour input indicators: at least quarter (monthly data may be provided by some countries)

CONSTRUCTION

- Production: Month for those member States whose value added in Section F of NACE in a given base year represents at least 2 per cent of the European Community total, Quarter for the others
- Labour input indicators: at least quarter
- Construction costs (construction input prices): at least quarter
- Building permits indicators: at least quarter

WHOLESALE AND RETAIL TRADE

- Volume of sales (deflated turnover): Month
- Turnover (in value): Month
- Labour input indicators (number of persons employed): Quarter

SERVICES

- Turnover: Quarter
- Producer prices (output prices): Quarter

6. Institutional mandate	Top

6.1. Institutional mandate—legal acts and other agreements

The legal basis for the STS indicators is the **Council Regulation No 1165/98 of 19 May 1998** concerning short-term statistics and subsequent amending regulations.

A consolidated version of the STS Regulation and an overview of all other regulations can be found here.

6.2. Institutional Mandate—data sharing

Eurostat makes available all the non-confidential data on its dissemination website. Selected data in special formats are transmitted daily to the ECB and monthly to the OECD.

7. Confidentiality	Top

7.1. Confidentiality—policy

Regulation (EC) No 223/2009 on European statistics (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

7.2. Confidentiality—data treatment

In some cases, member States transmit data to Eurostat with the request not to publish these data. Eurostat has the right to publish those data that are delivered according to a legal act and are not considered to be of a truly confidential nature (Article 20 of Regulation (EC) No 223/2009 of the European Parliament and of the Council of 11 March 2009).

The member States are obliged to ensure a sufficient degree of representativeness of data (STS Regulation, Article 10 (1)). Several cases have to be distinguished:

Confidentiality—if data are of a truly confidential nature according to the above-mentioned regulation (data which allow statistical units to be identified, either directly or indirectly), they have to be flagged confidential, and they will not be published by Eurostat.

Embargo—to enable Eurostat to produce press releases, sometimes data are sent in advance to Eurostat. Those data, if considered under embargo will not be published by Eurostat until the embargo expires. This case is currently handled by using confidentiality flags.

Data should not be published by Eurostat on request of a Member State—there is the (relatively rare) case that data are of good quality, but for some reasons, countries would not want these data to be published. In such a case the NSI should contact Eurostat and express their request that Eurostat should not publish these data. An informal agreement is needed between Eurostat and a NSI.

Quality issues

a) Bad quality—If national data of questionable quality are submitted to Eurostat to satisfy the requirements of the STS Regulation and these data are flagged as confidential, Eurostat will refuse to receive the bad quality data.

b) Data good enough for European aggregates but not reliable on a national level—If data are not reliable at a national level but are considered to be a reliable input for a European aggregate, the national data can be flagged confidential and will not be published by Eurostat. In this case an informal agreement is needed between Eurostat and a NSI if there is no other agreement (such as laid down by Commission Regulation 657/2007 on European Sample Schemes).

8. Release policy	Top

8.1. Release calendar

European aggregates of Principal European Economic Indicators (PEEIs, with or without news releases, see 10.1) are released and revised once per month for both monthly and quarterly time series. Release dates are available in the STS release calendar. Additionally, news releases are announced in Eurostat's release calendar.

The countries announce their release dates one year in advance. Based on the information provided by the countries, Eurostat makes public its own release calendar containing the publication dates of the European aggregates in October for the following calendar year. A few days before the publication, these dates must be officially confirmed.

Table 3.2 (*continued*)

Example of a detailed metadata description following the SDMX format—Industry, trade and services

8.2. Release calendar access

Release calendar for Euro Indicators covers all Principal European Economic Indicators (PEEIs) released in Eurostat's news releases (see 10.1.).

National Statistical Institutes release calendars can be found on the websites of National Statistical Institutes.

8.3. Release policy—user access

In line with the Community legal framework and the European Statistics Code of Practice Eurostat disseminates European statistics on Eurostat's website (see item 10: Dissemination format) respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably. The detailed arrangements are governed by the Eurostat protocol on impartial access to Eurostat data for users.

In line with this protocol and on a strictly regulated basis, data on key indicators are sent for information to the European Central Bank (ECB) under embargo the evening before the official release of data.

9. Frequency of dissemination	**Top**

Monthly and quarterly

Most of the national data are disseminated monthly; if only quarterly data are available, Eurostat calculates monthly estimates of the national data (method: interpolation of the quarterly data). These estimates are integrated in the monthly European aggregates, but they are not published at national levels.

10. Dissemination format	**Top**

10.1. Dissemination format—news release

News releases online. News releases are issued at 11 a.m. CET on Eurostat's website. These publications release each month selections of the most important EU aggregates, together with selected data from the member States. The following news releases are published every month:

- Industrial producer prices

- Retail trade volume

- Industrial production

- Construction output

10.2. Dissemination format—Publications

Statistics in Focus—irregularly

Eurostatistics—monthly

In the *Statistics Explained* collection, about 15 articles are regularly updated with more up-to-date STS data. Additionally, several background documents explain to the users the most relevant STS topics (legislation, seasonal adjustment, revision policy, etc.).

10.3. Dissemination format—online database

STS data are disseminated in full detail in the Short-Term Business Statistics dedicated section.

10.4. Dissemination format—microdata access

Not relevant; no microdata available at Eurostat.

10.5. Dissemination format—other

Not applicable.

11. Accessibility of documentation	**Top**

11.1. Documentation on methodology

The *Methodology of short-term business statistics—Interpretation and guidelines*, 2006, contains a comprehensive set of recommendations on the compilation of the STS statistics.

Detailed methodological information on the national methodologies is available from the *STS sources* and PEEIs in focus (see "11.2. Quality documentation")

11.2. Quality management—documentation

In 2004 Eurostat proposed to consider a detailed, focused analysis for one PEEI every year, with the chosen PEEI changing each year (PEEI in focus). The available reports can be downloaded here.

The **reports from the Commission to the Council and the European Parliament concerning Short-Term Statistics** also give information on quality aspects of the STS.

Up-to-date quality documentation is published on the Short-Term Business Statistics dedicated section.

12. Quality management	**Top**

12.1. Quality assurance

Quality checks and validation of data are done through the whole process: first by the providers of data, i.e., countries, then by Eurostat in the calculation of European aggregates. The quality is regularly monitored on the basis of the following inputs:

- The latest update of the STS sources

- The PEEIs in focus

- Usual quality checks in the process of validation of data

Concrete outputs are the following:

- The *Reports from the Commission to the Council and the European Parliament concerning Short-Term Statistics*

- Information to users by using the Eurostat website

- Improved quality data

12.2. Quality management—assessment

The general quality of short-term statistics (STS) is very good. Over recent years in particular the timeliness of STS has greatly improved. Details regarding the various quality criteria can be found in the **reports from the Commission to the Council and the European Parliament concerning Short-Term Statistics**.

13. Relevance **Top**

13.1. Relevance—User Needs

STS provide statistical information necessary to monitor the competitiveness and performance of the business community in the EU. The STS are used by different users (European Commission and ECB, national governments and central banks, economic analysts in private companies and financial institutions) and serve different purposes.

- **Internal market**—In order to carry out the tasks entrusted to it under the treaties, especially with regard to the internal market, the Commission must have exhaustive, up-to-date, reliable and comparable information on the activity, competitiveness and performance of enterprises in the Community.

- **Commission policies**—New economic, competition, social, environmental and enterprise policies and guidelines call for initiatives and decisions based on valid statistics. Business statistics are needed to provide harmonized, reliable and fast statistical information, to assist and inform policy decisions by both the Commission and individual enterprises.

- **GDP**—Business statistics have an essential role to play since the same statistical surveys can be used in compiling the various components in national accounts, which are in turn needed in the calculation of GDP.

- **European monetary policy** must be able to base itself on reliable European statistics which are comparable at all levels. The Maastricht Treaty already provided the ECB the right and obligation to obtain the tools necessary to fulfil its mission: "In order to ensure the missions of the ESCB*, the ECB, assisted by the national central banks, shall collect the necessary statistical data, either from the competent national authorities, or directly from the economic agents".

* ESCB—European System of Central Banks

13.2. Relevance—user satisfaction

User satisfaction is measured via download statistics for publications, hits on the short-term business statistics website and with ad hoc user surveys. Special attention (e.g., as regards updates) is given to the most frequently visited pages.

Short-term statistics are also subject to rolling reviews which assess the quality of the data and the data production process.

13.3. Completeness

Twice a year (every April and October), Eurostat assesses the degree of compliance with the STS Regulation 1165/98. These assessments, however, are not published.

14. Accuracy **Top**

14.1. Accuracy—overall

The accuracy is tackled at national and Community levels, by eliminating, as much as possible, non-sampling errors, by calculating sampling errors and studying and analysing revisions. The available information at country level is summarized in the reports PEEI in focus.

14.2. Sampling error

The available information at country level is summarized in the reports PEEI in focus.

14.3. Non-sampling error

The available information at country level is summarized in the reports PEEI in focus.

15. Timeliness and punctuality **Top**

15.1. Timeliness

Publication dates for European aggregates are published in the STS release calendar on the Eurostat website.

The countries must transmit their data to Eurostat by the following deadlines after the end of the reference period:

INDUSTRY

- Production: one month and 10 calendar days

- Turnover: two months

- Producer prices (output prices): one month and five calendar days

- Import prices: one month and 15 calendar days

- Labour input indicators: two months for number of persons employed, three months for hours worked, gross wages and salaries

CONSTRUCTION

- Production: one month and 15 calendar days

- Labour input indicators: two months for number of persons employed, three months for hours worked, gross wages and salaries

- Construction costs (construction input prices): three months

- Building permits indicators: three months

WHOLESALE AND RETAIL TRADE

- Volume of sales, turnover: one month for food, non-food and total retail trade (two months for the other activities)

- Labour input indicators (number of persons employed): two months

SERVICES

- Turnover: two months

- Output prices (producer prices): three months

For small member States, whose share in the respective Community total falls below 3 per cent, the deadlines are 15 days longer.

Table 3.2 (*continued*)

Example of a detailed metadata description following the SDMX format—Industry, trade and services

15.2. Punctuality

All the news releases are published according to the announced release calendars.

16. Comparability	**Top**

16.1. Comparability—geographical

The STS Regulations and the STS methodological guidelines are applied by the countries transmitting STS data. This ensures a good comparability between national data and good-quality European aggregates. However, in order to best use their available data, the countries may apply different collection methods (surveys, use of administrative sources) and different calculation procedures for the data.

Detailed methodological information about member States practices is available from the STS sources.

16.2. Comparability—over time

Not available.

17. Coherence	**Top**

17.1. Coherence—cross domain

Not available.

17.2. Coherence—internal

The STS Regulation and related acts have introduced a set of common definitions for short-term statistics applied by all member States. Eurostat and the national statistical offices work together in order to ensure the coherence of the short-term statistics indicators. The methodological framework established by the STS Regulation is continuously improved by consultations of technical experts and of special thematic task forces.

It should be noted that methodologies do not have to be identical across member States. In keeping with the principle of subsidiarity and in order to take account of national differences, e.g., as regards size, economic structure and availability of administrative data, the STS Regulation leaves member States free to decide on the most efficient and effective ways of collecting and processing data.

18. Cost and Burden	**Top**

Information can be found in the **reports from the Commission to the Council and the European Parliament concerning Short-Term Statistics**.

19. Data revision	**Top**

19.1. Data revision—policy

In order to improve the accuracy of the EU indices, Eurostat changed the STS release and revision policy of European aggregates from the beginning of October 2012. The new policy is in line with the ESS guidelines on revision policy for PEEIs.

According to the new policy for routine revisions, national data continue to be revised when additional information from national statistical authorities (or from seasonal adjustment carried out by Eurostat) becomes available.

European aggregates of PEEIs are revised once per month for both monthly and quarterly time series. Previously all European aggregates were revised whenever new information became available.

European aggregates of STS labour indicators and construction costs or prices and industrial turnover are revised when new information becomes available.

If errors are detected in either national data or in European aggregates, they are corrected immediately and an error report is released.

Major revisions and changes in methodology are announced in the monthly News Releases and/or the Short-Term Business Statistics dedicated section.

19.2. Data revision—practice

Apart from revisions generated by Eurostat's seasonal adjustment of national data, the revisions of EU indices come directly from revisions in national series transmitted to Eurostat on different dates. Since countries have different revision policies, it is common for EU indices to be revised.

A distinction can be made between revisions due to errors and those due to the incorporation of new information. For PEEIs, new information is integrated in the European aggregates on a regular basis (once per month).

Some information on data revision can be found in the **reports from the Commission to the Council and the European Parliament concerning Short-Term Statistics**. Information on revisions is also available via Statistics Explained.

20. Statistical processing	**Top**

20.1. Source data

The production of indices within member States is normally based on the compilation of data from numerous sources. Detailed methodological information about member States practices is available from the STS sources.

STATISTICAL SURVEYS

All national statistical authorities have statistical questionnaires used for compiling STS. However, their content and style vary greatly, partly because of cultural differences and partly because of the greater or lesser importance attached to respondent burden and cost. These influences as well as others determine what information the national statistical authorities think that they can observe. In most of the national statistical authorities, the surveys are rarely restricted to one standard questionnaire or form but tend to be a combination of forms, differentiated by major characteristics, namely:

• the activity, size, legal form and the type of variables asked on the form (output, prices, employment, other specialized variables);

• occasionally, an extra characteristic, the geographical location of the unit, may influence the contents of a survey.

ADMINISTRATIVE SOURCES / REGISTERS / DECLARATIONS

For the purposes of business statistics, a limited definition of administrative sources can be used. According to the purpose they serve, administrative registers can be subdivided into basic registers and specialized registers. Examples of indicators which use more frequently administrative sources are turnover (VAT declarations) or number of persons employed.

ESTIMATIONS

The STS Regulations explicitly permit the use of statistical estimation procedures. For example, these may be used for item or unit non-response, grossing of sample results to the level of the frame population or to adjust results from surveys or administrative sources where the frame population does not sufficiently match the target population or the variables collected are not sufficiently close to those required. Hence, this need for estimation may arise because of non-response or because the statistical authority has chosen not to collect directly the information required.

NON-OFFICIAL SOURCES

There is a great variety of non-official data, much of it available from consultancies or research institutes. Trade associations and chambers of commerce also produce non-official data about the business community. With only a few exceptions, private research institutions do not carry out regular surveys and tend to produce results from ad hoc surveys for clients.

20.2. Frequency of data collection

INDUSTRY

- Production: month
- Turnover: month
- Output prices (producer prices): month
- Import prices: month
- Labour input indicators: at least quarter (monthly data may be provided by some countries)

CONSTRUCTION

- Production: month for those member States whose value added in Section F of NACE in a given base year represents at least 2 per cent of the European Community total, quarter for the others
- Labour input indicators: at least quarter
- Construction costs (construction input prices): at least quarter
- Building permits indicators: at least quarter

WHOLESALE AND RETAIL TRADE

- Volume of sales (deflated turnover): month
- Turnover (in value): month
- Labour input indicators (number of persons employed): Quarter

SERVICES

- Turnover: Quarter
- Producer prices (output prices): Quarter

20.3. Data collection

Detailed methodological information about member States practice is available from the STS sources.

20.4. Data validation

Data received from the countries—and the European indices compiled from these data—are validated using validation rules implemented in the data feeding software. Some validation rules are applied on an ad hoc basis.

At national level, editing involves studying data from respondents with the aim of identifying (and eventually correcting) errors. Not all errors can be identified, and the aim is to detect the errors that have a significant influence on the results. Rules to assist in identifying errors may flag possible errors that require further investigation to determine where there really is an error as opposed to an unusual result, or they may identify definite errors. Editing involves checks for completeness, that values are within given ranges and that values for related variables are coherent. Data editing may take place during or after data entry.

Responses can be compared with the response of previous months. Inconsistency or large deviations (outside of a pre-established range) indicate that a closer look is desirable. This may result in editing. In the context of timeliness, the editing process may be designed to give top priority to those outliers that are most in need of editing for the sake of reliable aggregates. By solving the worst cases, large improvements can be achieved.

Eurostat also carries out validation checks on the national aggregated indices it receives. This may result in contacting the reporting country. In the context of timeliness, the validation process may be designed to give top priority to those outliers that are most in need of verification for the sake of reliable European aggregates.

20.5. Data compilation

National level

The starting point for the processing stage is the information as collected from respondents. The aim is to bring these data to the level of the intended statistical output. For various reasons, the act of processing comprises more than just aggregating questionnaire items.

Processing steps can be summarized as follows:

- After data entry, errors and inconsistencies are detected and corrected during editing.
- Subsequently, item non-responses, as well as gaps between questionnaire concepts and output concepts, are dealt with by imputation.
- The resulting set of clean and complete microdata serves as the basis for weighting and reweighting. During this stage, frame errors may also be accounted for.
- The aggregated data may then be confronted with related data from other sources and possibly integrated.
- Finally, where appropriate, statistical compilations and analysis are carried out, resulting in a non-public dataset. Before dissemination, the one remaining stage is to identify and treat confidentiality.

Table 3.2 (*continued*)

Example of a detailed metadata description following the SDMX format—Industry, trade and services

European level

The European indices are calculated from national indices, taking into account the relative share of each member State in the appropriate geographical aggregate, for the gross and calendar-adjusted forms. This is done at each level of the activity classification. European aggregates of seasonally adjusted series are calculated from corresponding national series (geographically indirect seasonal adjustment).

However, the data received from each country may need a certain amount of pre-treatment before the European indices can be calculated. Three necessary stages can be identified as well as a fourth extra stage that is not directly needed for the calculation of European indices.

• Any data supplied in absolute figures need to be compiled as indices.

• Base years need to be harmonized.

• Missing activity aggregates need to be calculated.

• Any of the needed forms (for example, seasonally adjusted) that are missing are produced.

The procedures for compiling the geographical aggregation start with the gross and calendar adjusted series. The European aggregates start—with any number of countries—from the reference period for which 60 per cent of the total weight is reached. As new series pile up, the total weight increases, to eventually reach 100 per cent of the target aggregate. Thresholds also apply to the ending portion of the series. The impact of missing countries' data on aggregates is adjusted for by individually extrapolating missing countries' index levels of the previous period using the average monthly or quarterly development of the available countries.

The weighting system used by Eurostat plays a double role:

• It allows geographical aggregation to be carried out.

• It allows for activity aggregation when national statistical authorities choose not to aggregate according to the activity or product classification.

The current weighting system uses 2010 data. The weights are sometimes confidential, especially at a detailed level. This can be because the weights are in general based on SBS data which itself may be confidential. The tables containing non-confidential weights can be found here. More detailed information can be made available upon request, subject to the agreement of the countries concerned.

20.6. Adjustment

According to the STS Regulation, the countries are required to transmit calendar-adjusted figures for the following indicators:

• Industrial production

• Production in construction

• Hours worked in industry, in construction and no later than from 31 March 2015 onwards in retail trade and services

• Retail trade turnover

• Retail trade volume of sales (retail trade deflated turnover)

• Turnover in services

Additionally, member States are encouraged to transmit seasonally adjusted indices. If they do not, Eurostat calculates the seasonally adjusted indices using TRAMO/SEATS method and software for the individual member States. At present, National Statistical Institutes in the European Union member States use different methods of seasonal adjustment, all of them however belonging either to the Census-X11 (and its upgrades) or the TRAMO/SEATS families of methods.

Since data releases of March 2012 Eurostat performs an indirect method of seasonal adjustment which means that Eurostat aggregates seasonally adjusted national time series to obtain European aggregates (geographically indirect seasonal adjustment). This method guarantees the consistency of the European aggregates and the national data.

For more information on direct and indirect seasonal adjustment, refer to

http://ec.europa.eu/eurostat/statistics-explained/index.php/Short-term_business_statistics_-_seasonal_adjustment_methods

The Principal European Economic Indicators (PEEIs) represent a comprehensive set of infra-annual macro-economic statistics which are of particularly high importance for economic and monetary policy. Therefore, for the STS PEEIs, detailed information on the applied methods is provided. At Eurostat the calendar and seasonal adjustment is carried out at the following level of detail:

• industrial production: European aggregates and member States data for EL and LU: total, MIGs (intermediate goods, energy, capital goods, durable consumer goods, non-durable consumer goods);

• production in construction: European aggregates and member States data for DK, EE, EL, ES, IT (CC1, CC2), LU (F) and NL: total (F), building (CC1), civil engineering (CC2);

• deflated turnover for retail trade: European aggregates and member States data for EE, EL, IT, LU, NL and SK: total, food, drinks and tobacco, non-food products (except automotive fuel), automotive fuel in specialized stores, textile, clothing and footwear, electrical goods and furniture, computer equipment, books and other, pharmaceutical and medical goods, mail orders and Internet (G4791);

• building permits (number of dwellings and square metres): European aggregates and member States data for AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HU, IE, IT, LT, LU, LV, NL, PL, PT, RO, SI, SK and UK: total of new residential buildings (no. of dwellings), total of all buildings (square metres);

• service turnover: European aggregates and member States data for AT, BE, CZ, CY, DK, EE, EL, ES, FI, IE, IT, LU, NL, PL, PT, RO, SI, SK and UK: total, two-digit level.

and as follows:

Calendar adjustment

Industrial production, production in construction, building permits, deflated turnover for retail trade and service turnover: the adjustment is performed at country level.

Other pre-adjustment

Industrial production, production in construction, building permits, deflated turnover for retail trade and service turnover: calendar-adjusted data from member States is checked for additive outliers (AO), level shifts (LS) and transitory changes (TC). Significant outliers are included as regressors in the model, e.g., for industrial production outliers during October 2008 and January 2009 due to the economic and financial crisis are modelled as LS.

Seasonal adjustment

- European aggregates for industrial production, production in construction, building permits, deflated turnover for retail trade and service turnover: the geographically indirect method is used, and the aggregates are checked for residual seasonality.

- Member States' data for industrial production, production in construction, building permits, deflated turnover for retail trade and service turnover: the direct adjustment method is used. This means all time series are adjusted on an individual basis. DEMETRA Version 2.2 is used for model check and TRAMO/SEATS April 2005 for data production. The ARIMA models are automatically selected within a large number of models and checked for adequacy. To avoid mixed models and models with lags greater than three, manual model selection is used. The critical value for outlier detection takes the number and the date of outliers into account, e.g., less than 5 per cent of the data should be identified as outliers, and the outliers should not cluster in one period. Particular attention on outlier detection is paid at the end of the series. The filter length is automatically chosen.

- Eurostat will change from the older TRAMO/SEATS software to a more recent version, implemented as part of the JDemetra+ v. 2.0 package. The previous seasonal adjustment specifications have been converted for use also in JDemetra+ in order to ensure stability of the seasonal adjustment process and to minimize revisions. The users will be informed of the exact date via a note in the Eurobase reference database.

More specifically:

- For industrial production 14 series have a multiplicative decomposition and 10 an additive decomposition. EL Intermediate Goods have a seasonal break in January 2000.

- For production in construction 13 series have a multiplicative decomposition and nine an additive decomposition. ES data have a seasonal break in January 2005.

- For building permits the multiplicative decomposition is always chosen.

- For deflated turnover for retail trade 37 series have a multiplicative decomposition and 12 an additive decomposition.

- For service turnover 234 series have a multiplicative decomposition and 95 an additive decomposition.

Table 3.3

Example of a basic metadata description following the SDMX format—Industry, trade and services

Industry, trade and services (ei_is) Reference Metadata in Euro SDMX Metadata Structure (ESMS) Compiling agency: Eurostat, the statistical office of the European Union	
For any question on data and metadata, please contact: EUROPEAN STATISTICAL DATA SUPPORT	
1. Contact	**Top**
1.1. Contact organization	Eurostat, the statistical office of the European Union
1.2. Contact organization unit	G3: Short-term statistics and tourism
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG
2. Metadata update	**Top**
2.1. Metadata last certified	23/01/2015
2.2. Metadata last posted	23/01/2015
2.3. Metadata last update	03/02/2016
3. Statistical presentation	**Top**
3.1. Data description	

Industry, Trade and Services statistics are part of short-term statistics (STS); they give information on a wide range of economic activities according to NACE Rev.2 classification (Statistical Classification of Economic Activities in the European Community). The industrial import price indices offer information according to the CPA classification (Statistical Classification of Products by Activity in the European Economic Community). Construction indices are broken down by Classification of Types of Construction (CC).

All data under this heading are index data. Percentage changes are also available for each indicator.

The index data are presented in the following forms:

- Unadjusted
- Calendar adjusted
- Seasonally adjusted

Depending on the STS Regulation, data are accessible monthly and quarterly. This heading covers the indicators listed below in four different sectors.

Based on the national data, Eurostat compiles EU and euro-area infra-annual economic statistics. Among these, a list of indicators, called Principal European Economic Indicators (PEEIs) has been identified by key users as being of prime importance for the conduct of monetary and economic policy of the euro area. These indicators are mainly released through Eurostat's website under the heading Euro-indicators.

There are eight PEEIs contributed by STS and they are marked with * in the text below.

INDUSTRY

- Production index*
- Turnover index
- Producer prices (domestic output prices index)*
- Import prices index*: Total, euro area market, Non-euro area market (euro area countries only)
- Labour input indicators: Number of persons employed, hours worked, gross wages and salaries

Table 3.3 (*continued*)

Example of a basic metadata description following the SDMX format—Industry, trade and services

CONSTRUCTION
- Production index*: Total of the construction sector, building construction, civil engineering
- Labour input indicators: Number of persons employed, hours worked, gross wages and salaries
- Construction costs index
- Building permits indicators*: Number of dwellings

WHOLESALE AND RETAIL TRADE
- Volume of sales (deflated turnover)*
- Turnover (in value)
- Labour input indicators: Number of persons employed

SERVICES
- Turnover index*
- Producer prices (output prices)*

3.2. Classification system

NACE Rev.2 classification (Statistical Classification of Economic Activities in the European Community) is used for all the STS indicators, except Industrial Import Prices; for this indicator, the information is available according to CPA classification (Statistical Classification of Products by Activity in the European Economic Community). The split of the construction indicators into *building* and *civil* engineering is made based on **CC classification** (classification of types of construction).

3.3. Coverage—sector

INDUSTRY

The indicators in this sector cover economic activities listed in sections B to E of NACE (B—Mining and quarrying, C—Manufacturing, D-Electricity, gas, steam and air conditioning supply, E—Water supply; sewerage, waste management and remediation activities); the import prices indicator covers products listed in Sections B, C and D of the CPA.

CONSTRUCTION

The indicators in this sector cover economic activities listed in section F of NACE (construction). The breakdown into building and civil engineering required for certain indicators is based on CC classification.

WHOLESALE AND RETAIL TRADE

The indicators in this sector cover economic activities listed in section G of NACE (Wholesale and retail trade; repair of motor vehicles and motorcycles).

SERVICES

The indicators in this sector cover economic activities listed in sections H, I, J, M and N of NACE (H—Transportation and storage, I—Accommodation and food service activities, J—Information and communication, M—Professional, scientific and technical activities, N—Administrative and support service activities).

3.4. Statistical concepts and definitions

Detailed definitions of each indicator are described in the Commission Regulation 1503/2006.

PRODUCTION

The objective of the production index is to measure changes in the volume of output at close and regular intervals, normally monthly. It provides a measure of the volume trend in value added over a given reference period. The production index is a theoretical measure that must be approximated by practical measures.

Value added at basic prices can be calculated from turnover (excluding VAT and other similar deductible taxes directly linked to turnover), plus capitalized production, plus other operating income plus or minus the changes in stocks, minus the purchases of goods and services, minus taxes on products which are linked to turnover but not deductible plus any subsidies on products received. The division of production in construction between building construction and civil engineering is based on the classification of types of construction (CC).

TURNOVER

It is the objective of the turnover index to show the development of the market for goods and services.

Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice.

Turnover excludes VAT and other similar deductible taxes directly linked to turnover, as well as all duties and taxes on the goods or services invoiced by the unit.

The indices of domestic and non-domestic turnover require turnover to be split according to the first destination of the product based on the change of ownership. The destination is determined by the residency of the third party that purchased the goods and services. Non-domestic turnover is further subdivided into turnover dispatched to euro-zone countries and all other non-domestic turnover.

VOLUME OF SALES

The volume of sales represents the value of turnover in constant prices and as such is a quantity index. It is normally calculated as turnover at current prices, deflated by the deflator of sales.

PRODUCER PRICES (OUTPUT PRICES)

The producer prices are also known as output prices. However, although the STS Regulations use the term of "output prices", in practice the most used term is "producer prices". The definition in this paragraph reflects the terminology used in the Commission Regulation 1503/2006.

The objective of the output price index is to measure the monthly development of transaction prices of economic activities.

The domestic output price index for an economic activity measures the average price development of all goods and related services resulting from that activity and sold on the domestic market. The non-domestic price index shows the average price development (expressed in the national currency) of all goods and related services resulting from that activity and sold outside of the domestic market. When combined, these two indices show the average price development of all goods and related services resulting from an activity.

It is essential that all price-determining characteristics of the products are taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination.

IMPORT PRICES

It is the objective of the import price indices to measure the monthly transaction price development of imported goods purchased from non-domestic areas by domestic residents. All the related services are excluded from the scope. It is essential that all price-determining characteristics of the products are taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions origin and destination. The non-domestic market is defined as third parties, which are not resident in the same national territory as the observation unit.

The indices of the import prices require a separate calculation according to the country of consignment of the product. The country of consignment is determined in a consistent way with customs procedures. Import prices are subdivided into imports from euro-zone countries and imports from other countries.

NUMBER OF PERSONS EMPLOYED

It is the objective of the index of number of persons employed to show the development of employment.

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g., sales representatives, delivery personnel, repair and maintenance teams).

HOURS WORKED

It is the objective of the hours worked index to show the development in the volume of work done. The total number of hours worked represents the aggregate number of hours actually worked for the output of the observation unit during the reference period.

WAGES AND SALARIES

It is the objective of the wages and salaries index to approximate the development of the wage and salaries bill. Wages and salaries are defined as the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including home workers), in return for work done during the accounting period, regardless of whether it is paid on the basis of working time, output or piecework and whether it is paid regularly.

CONSTRUCTION COSTS

The objective of the construction cost index is to show the development of costs incurred by the contractor to carry out the construction process. The cost indices are mandatory for new residential buildings (excluding residencies for communities). The component costs index (material costs and labour costs) shows the price developments of production factors used in the construction industry. Output price indices for construction can be used as an approximation for the construction cost variables.

BUILDING PERMITS: NUMBER OF DWELLINGS, SQUARE METRES OF USEFUL FLOOR AREA

The objective of the number of dwelling building permit index is to show the future development of construction activity in terms of unit numbers, while the objective of the useful floor area building permit index is to show the future development of construction activity in terms of volume.

A building permit is an authorization to start work on a building project. As such, a permit is the final stage of planning and building authorizations from public authorities, prior to the start of work.

3.5. Statistical unit

The STS Regulations require the use of the following observation units:

- KAU (kind of activity unit) for the indicators in industry and construction;

- Enterprise for the indicators in wholesale and retail trade and other services.

In practice, however, several member States collect the information from the enterprises rather than from the KAU (data collection on the level of the KAU requires a greater degree of detail, which is often not available, e.g., in administrative sources).

3.6. Statistical population

The statistical population comprises the observation units (KAUs or enterprises) operating in the NACE/CPA classes mentioned below.

INDUSTRY

- Production: sections B, C, D of NACE (D353 excluded)

- Turnover: sections B and C of NACE

- Import prices: Sections B, C, D of CPA (B0721, B09, C18, C2446, C254, C301, C303, C304, C33 not included)

- Labour input indicators (number of persons employed, hours worked, gross wages and salaries): Sections B to E of NACE (E37, E38 and E39 not included)

CONSTRUCTION

- Production: section F of NACE broken down to building construction and civil engineering according to classification of types of construction (CC)

- Building permits indicators:

- Construction costs (construction costs, material costs and labour costs): CC11 excluding CC 113 (new residential buildings excluding residencies for communities)

- Labour input indicators (number of persons employed, hours worked, gross wages and salaries): section F

WHOLESALE AND RETAIL TRADE

Volume of sales (deflated turnover): section G of NACE (G45, G46, G47)

- Turnover (in value): section G of NACE (G45, G46, G47)

- Labour input indicators (number of persons employed): section G (G45, G46,G47 excluding G47.3)

SERVICES

- Turnover: sections H, I, J, M, N of NACE

Detailed information on the level of detail of the data to be delivered by each country and therefore on the target statistical population for each country, is available from the STS requirements, available here. The STS Regulation allows simplified reporting for small countries (below certain thresholds).

3.7. Reference area

Euro area and European Union, EU individual member States and EFTA countries. Data referring to candidate countries to the EU, and aggregates for the United States of America and Japan are also published if available.

Table 3.3 (*continued*)

Example of a basic metadata description following the SDMX format—Industry, trade and services

3.8. Coverage—time

Time coverage varies from series to series. Typically, time series cover the period back to 1998, the year the STS Regulation was adopted. Some countries have data for earlier years. Historical series for a limited number of indices are available back to the 1980s.

3.9. Base period

Year 2010 = 100

4. Unit of measure	Top

Indices, percentage changes (%)

5. Reference period	Top

INDUSTRY

- Production: Month
- Turnover: Month
- Producer prices (output prices): Month
- Import prices: Month
- Labour input indicators: at least quarter (monthly data may be provided by some countries)

CONSTRUCTION

- Production: Month for those member States whose value added in Section F of NACE in a given base year represents at least 2% of the European Community total, quarter for the others
- Labour input indicators: at least quarter
- Construction costs (construction input prices): at least quarter
- Building permits indicators: at least quarter

WHOLESALE AND RETAIL TRADE

- Volume of sales (deflated turnover): Month
- Turnover (in value): Month
- Labour input indicators (number of persons employed): Quarter

SERVICES

Turnover: Quarter

6. Frequency of dissemination	Top

Monthly and quarterly

Most of the national data are monthly disseminated; if only quarterly data are available, Eurostat calculates monthly estimates of the national data (method: interpolation of the quarterly data). These estimates are integrated in the monthly European aggregates but they are not published at national levels.

7. Dissemination format	Top

7.1. Dissemination format—News release

News releases online. News releases are issued at 11 a.m. CET on Eurostat's website. These publications release each month selections of the most important EU aggregates, together with selected data from the member States. The following news releases are published every month:

- Industrial producer prices
- Retail trade volume
- Industrial production
- Construction output

7.2. Dissemination format—publications

Statistics in Focus—irregularly

Eurostatistics—monthly

In the *Statistics Explained* collection around 15 articles are regularly updated with more up-to-date STS data. Additionally, several background documents explain to the users the most relevant STS topics (legislation, seasonal adjustment, revision policy, etc.).

7.3. Dissemination format—online database

STS data are disseminated in full detail in the Short-Term Business Statistics dedicated section.

7.4. Dissemination format—microdata access

Not relevant; no microdata available at Eurostat.

7.5. Dissemination format—other

Not applicable.

Chapter 4
Analytical indicators

A. Introduction

4.1.   This chapter presents examples of how the data template for short-term statistics can be used to derive analytical indicators to monitor and measure the performance of the national economy and its segments. Section B discusses the objectives of analytical indicators. Section C then describes the various types of analytical indicators and discusses the key principles governing how each type can be developed, best used and interpreted. For each type, a list of commonly used indicators is also provided, as it is not possible to enumerate an exhaustive list of analytical indicators that can be applied in all countries and in all circumstances given the diversity of the needs of users and the fact that they may change over time.

B. Objectives of analytical indicators

4.2.   As explained in the *International Recommendations for Industrial Statistics 2008* (United Nations, 2009), in principle, an analytical indicator which is derived from a short-term statistic is a policy-relevant statistic that provides an indication of the conditions in and the functioning of any segment of the economy and the overall economy. In practice, an analytical indicator can be a percentage change, any ratio that summarizes two or more important measurements and that is tied to the performance of the national economy, a sector or an industry.

4.3.   Analytical indicators are also a powerful instrument for presenting complex information in a synthesized way. They serve as a simplified means of summarizing the information and communicating it to decision makers, policy analysts, researchers and the public.

4.4.   As a tool for measuring the overall performance of the national economy, analytical indicators can help policymakers and economic planners monitor and evaluate how effectively economic activity is organized, identify potential areas of improvement and make more informed strategic decisions regarding future strategy for development.

4.5.   Analytical indicators are also useful to the business community. By using them, businesses can quickly assess the business environment in which they operate. Analytical indicators allow economic agents to develop their own performance measurement programmes, identify and set their long-term objectives in performance and measure their progress. Managing and reporting performance can lead to significant business benefits such as increased efficiency through reducing and managing resources, increased production and improved reputation among customers.

4.6.   Every analytical indicator relates, implicitly or explicitly, to the national economy or a segment, such as an industry or a sector. Analytical indicators are also a suitable tool for academicians and researchers who use them for making comparisons across countries and industries and over time, and for identifying factors that lead to better performance.

C.   Types of analytical indicators

4.7.   Analytical indicators can be divided broadly into four types, namely:

    a)   Growth rates;

    b)   Contributions to growth;

    c)   Ratio indicators;

    d)   Share indicators.

4.8.   Analytical indicators are best used to gauge the overall performance of the national economy (or any other sector of the economy), its structure or ongoing processes. Therefore, it would not be desirable to sacrifice this goal for the sake of achieving a very detailed compilation and analysis of analytical indicators that are of minor importance but that require much additional data. The purpose of utilizing analytical indicators is to arrive at an understanding of the broad performance and trends of the national economy and its components in a harmonized and internationally comparable manner.

4.9.   The data template for short-term statistics allows the compilation of analytical indicators that are useful for measuring the overall performance of the national economy and its components. As will be described below, several analytical indicators could be compiled by using indicators in the data template.

C.1.   Growth rates

4.10.   Growth rates can be computed using non–seasonally adjusted or seasonally adjusted time series data. The data series can be expressed in monetary values or in indices. Growth rates can be calculated for data series which are available only in current prices whether in monetary values or indices. However, when data series in monetary values or indices are available in both current prices and volume terms, it is preferable to calculate growth rates using the data in volume terms, as these data are not distorted by the effects of price changes. In the case of non–seasonally adjusted data series, growth rates are typically calculated on a year-on-year basis using the below formula:

$$yr^{t,y} = \left(\frac{x^{t,y}}{x^{t,y-1}} - 1 \right) \times 100$$

<div align="right">(4.1)</div>

where

$yr^{t,y}$ is the year-on-year growth rate in the non–seasonally adjusted data series x in time period t of year y,

$x^{t,y}$ is the level of non–seasonally adjusted data series x in time period t of year y and $x^{t,y-1}$ is the level of non–seasonally adjusted data series x in time period t of year $y-1$.

In formula (4.1), t can represent a month or quarter.

4.11.   In the case of seasonally adjusted monthly and quarterly data, compiling agencies can consider calculating month-on-month or quarter-on-quarter growth rates, which can be presented as actual rates of change or as annualized rates. Annualized growth rates are month-on-month or quarter-on-quarter growth rates which have been adjusted to reflect the amount a variable would have changed over a year's time had it continued to grow at the given rate. The

result is a percentage change that is easily comparable to other annualized data. Annualized growth rates offer a simple way to compare the growth rates of economic variables presented across different periods. Analysts can regularly assess the monthly or quarterly performance of key economic statistics relative to their changes in recent years.

4.12.　Actual quarter-on-quarter growth rates are calculated using the following formula:

$$qr^{q,y} = \left(\frac{x^{q,y}}{x^{q-1,y}} - 1 \right) \times 100 \tag{4.2}$$

where

$qr^{q,y}$ is the quarter-on-quarter growth rate in the seasonally adjusted data series x in quarter q of year y,

$x^{q,y}$ is the level of the seasonally adjusted data series x in quarter q of year y and

$x^{q,y-1}$ is the level of seasonally adjusted data series x in quarter $q-1$ of year y.

4.13.　Annualized quarter-on-quarter rates of change are calculated using the following formula:

$$a^{q,y} = \left[\left(\frac{x^{q,y}}{x^{q-1,y}} \right)^4 - 1 \right] \times 100 \tag{4.3}$$

where

$a^{q,y}$ is the annualized quarter-on-quarter growth rate in the seasonally adjusted data series x in quarter q of year y,

$x^{q,y}$ is the level of the seasonally adjusted data series x in quarter q of year y and

$x^{q-1,y}$ is the level of seasonally adjusted data series x in quarter $q-1$ of year y.

4.14.　In the case of seasonally adjusted monthly data, actual month-on-month growth rates are calculated using the following formula:

$$m^{m,y} = \left(\frac{x^{m,y}}{x^{m-1,y}} - 1 \right) \times 100 \tag{4.4}$$

where

$m^{m,y}$ is the month-on-month growth rate in the seasonally adjusted data series x in month m of year y,

$x^{m,y}$ is the level of the seasonally adjusted data series x in month m of year y and

$x^{m-1,y}$ is the level of seasonally adjusted time series x in month $m-1$ of year y.

4.15.   Annualized month-on-month rates of change are calculated using the following formula:

$$a^{m,y} = \left[\left(\frac{x^{m,y}}{x^{m-1,y}} \right)^{12} - 1 \right] \times 100 \qquad (4.5)$$

where

$a^{m,y}$ is the annualized month-on-month growth rate in the seasonally adjusted data series x in month m of year y,

$x^{m,y}$ is the level of the seasonally adjusted time series x in month m of year y and

$x^{m-1,y}$ is the level of seasonally adjusted time series x in month $m-1$ of year y.

4.16.   Growth rates can be calculated for a number of data series in the data template for short-term statistics. Examples include:

- Expenditure-based and production-based GDP and their components
- Production indices
- Turnover indices
- CPI
- PPI
- Import price index
- Export price index
- Employment
- Hours of work
- Residential property price index

The calculation of growth rates provides policymakers and other stakeholders with an indication of the performance of the economy and its various segments in proportional terms. A comparison of growth rates over time can provide inputs to the policymaking process. For instance, an increase in the inflation rate (as defined by the percentage change in the CPI) coupled with rapid real GDP growth over time may suggest that the economy is overheating. Thus, the central bank may need to consider whether to raise interest rates or use other appropriate monetary policy measures to stabilize the economy.

C.2. Contributions to growth

4.17.   Very often, it may be useful to quantify the role of a component in the growth rate of an aggregate data series. This can be done by calculating measures of the components' contribution to the percent change in the aggregate. Contributions to changes provide a powerful analytical tool for understanding movements in an aggregate. The contribution of a component to a change in an aggregate over a given period of time can be defined as the change that would have occurred in the aggregate if that component had undergone its observed change but all other components had remained frozen at their values at the start of the period (and all weights

were unchanged). The effect of each component depends on both the size of the change and its weight. The sum of all contributions across all components is equal to the change in the aggregate and contributions to growth of the components can be negative, zero or positive. Contributions to growth are expressed in percentage points.

4.18.   The formulae to calculate contributions of components to the growth of an aggregate vary, depending on the features of the data including but not limited to the following:

- The index number formulae used (i.e., Laspeyres-type or Fisher-type).

- The additivity or non-additivity of the data.[57]

- The presentation of the data (i.e., in monetary values or indices).

- The frequency of the data (i.e., monthly or quarterly).

- The period over which the contributions to growth are calculated (for example, quarter-on-quarter or year-on-year).

4.19.   The calculation of contributions to growth has become more prominent and important with the loss of additivity that has accompanied the introduction of chain-linked volume measures for various aggregates such as GDP in many countries. While chain-linked volume estimates of the components of an aggregate do not generally sum up to the chain-linked volume estimate of the aggregate, it is possible to calculate the contributions of each component to the growth rate of the aggregate that are additive.

a) Calculating contributions to growth using monetary data which are additive

4.20.   When non–seasonally adjusted additive data are expressed in monetary values, the contribution of a component to the year-on-year growth of an aggregate can be calculated using the following formula:

$$c_i^{(t,y-1)\rightarrow(t,y)} = \left(\frac{x_i^{t,y} - x_i^{t,y-1}}{X^{t,y-1}} \right) \times 100 \tag{4.6}$$

where $c_i^{(t,y-1)\rightarrow(t,y)}$ is the contribution of component i to the year-on-year growth of the aggregate data series X in time period t of year y,

$x_i^{t,y}$ is the level of component i in time period t of year y,

$x_i^{t,y-1}$ is the level of component i in time period t of year $y-1$ and

$X^{t,y-1}$ is the level of the aggregate data series in time period t of year $y-1$ and can also be written as $X^{t,y-1} = \sum_{i=1}^{n} x_i^{t,y-1}$, where n is the number of components.

In formula (4 6), t can represent a month or quarter.

4.21.   Many statistical agencies typically calculate the contributions to growth of GDP components to real GDP growth. When volume measures of GDP are calculated using fixed weights with the Laspeyres-type index number formula so that they are additive, the contribution to growth of a component to year-on-year real GDP growth can be calculated using the following formula:

$$cL_i^{(q,y-1)\to(q,y)} = \left(\frac{x_i^{q,y} - x_i^{q,y-1}}{GDP^{q,y-1}}\right) \times 100 \qquad (4.7)$$

where

$cL_i^{(q,y-1)\to(q,y)}$ is the contribution to real GDP growth of component i in quarter q of year y,

$x_i^{q,y}$ is the volume measure of component i in quarter q of year y,

$x_i^{q,y-1}$ is the volume measure of component i in quarter q of year $y - 1$ and

$GDP^{q,y-1}$ is the volume measure of GDP in quarter q of year $y - 1$.

Formulae (4.6) and (4.7) can be modified to calculate contributions to month-on-month or quarter-on-quarter growth using seasonally adjusted data by changing the appropriate terms in the formulae to the relevant seasonally adjusted terms.

b) Calculating contributions to growth using fixed-weighted indices

4.22.   Many data series in the data template are reported in indices rather than monetary values. Examples include the IIP, CPI, PPI and export and import price indices. Many countries calculate these indices using fixed weights with the use of the Laspeyres-type index number formula. In these instances, the contribution of a component to the year-on-year growth of an aggregate index which is non–seasonally adjusted can be calculated using the following formula:

$$c_i^{(t,y-1)\to(t,y)} = w_i \times \left(\frac{I_i^{t,y} - I_i^{t,y-1}}{I^{t,y-1}}\right) \times 100 \qquad (4.8)$$

where $c_i^{(t,y-1)\to(t,y)}$ is the contribution of component i to the year-on-year growth of the aggregate index I in time period t of year y,

w_i is the weight of component i in the aggregate index,

$I_i^{t,y}$ is the level of the index for component i in time period y of year y,

$I_i^{t,y-1}$ is the level of the time series for component i in time period t of year $y - 1$

$I^{t,y-1}$ is the aggregate index in time period t of year $y - 1$.

In formula (4.8), t can represent a month or quarter. Formula (4.8) can also be modified to calculate contributions to month-on-month or quarter-on-quarter growth using seasonally adjusted data by changing the appropriate terms in the formulae to the relevant seasonally adjusted terms.

c) Calculating contributions to growth using monetary data which are chained and non-additive

4.23.   When data in monetary values are chained so that they are non-additive, the formula to calculate contributions to real growth of an aggregate will depend on the index number for-

mula which is used and the method of linking when annual base years are used and the time span the percent change covers. In practice, countries which are compiling chained volume estimates use either the Laspeyres or Fisher index number formula, but the former is used more frequently, as it is less complex to apply.

4.24.   When chained volume measures of an aggregate are calculated using the Laspeyres-type index number formula and the annual overlap method[58] is used for chain-linking, quarter-on-quarter contributions for quarters two to four can be calculated using the following formula:

$$cL_i^{(q-1,y-1)\to(q,y)} = \left(\frac{P_i^{y-1}}{P_X^{y-1}}\right)\left(\frac{x_i^{q,y} - x_i^{q-1,y}}{X^{q-1,y}}\right)\times 100 \quad \text{for} \quad q = 2,3,4 \qquad (4.9)$$

where $cL_i^{(q-1,y-1)\to(q,y)}$ is the contribution of component i to the quarter-on-quarter growth of the aggregate X in quarter q of year y,

P_i^{y-1} is the annual chain deflator for component i in year y – 1,

P_X^{y-1} is the annual chain deflator for the aggregate X in year y – 1,

$x_i^{q,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q of year y,

$x_i^{q-1,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q – 1 of year y and

$X^{q-1,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure of the aggregate X in quarter q – 1 of year y.

The quarter-on-quarter contribution for the first quarter can be calculated by adjusting formula (4.9) to include an adjustment factor to ensure that the contributions are exactly additive as follows:

$$cL_i^{(4,y-1)\to(1,y)} = \left[\left(\frac{P_i^{y-1}}{P_X^{y-1}}\right)\left(\frac{x_i^{1,y} - x_i^{4,y-1}}{X^{4,y-1}}\right) + \left(\frac{x_i^{4,y-1}}{X^{4,y-1}} - \frac{x_i^{y-1}}{X^{y-1}}\right)\left(\frac{P_i^{y-1}}{P_X^{y-1}} - \frac{P_i^{y-2}}{P_X^{y-2}}\right)\right]\times 100$$

$$(4.10)$$

where $cL_i^{(4,y-1)\to(1,y)}$ is the contribution of component i to the quarter-on-quarter growth of the aggregate X in quarter 1 of year y,

P_i^{y-1} is the annual chain deflator for component i in year y – 1,

P_X^{y-1} is the annual chain deflator for the aggregate X in year y – 1,

$x_i^{1,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter 1 of year y,

$x_i^{4,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter 4 of year y – 1,

$X^{4,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure of the aggregate X in quarter 4 of year y – 1,

[58] As described in the *Quarterly National Accounts Manual: Concepts, Data Sources, and Compilation (update)* (International Monetary Fund, forthcoming), the annual overlap method technique implies compiling estimates for each quarter at the weighted annual average prices of the previous year. The annual data at the previous year's prices provide the linking factors to scale the quarterly data upward or downward.

x_i^{y-1} is the level of the annually chained Laspeyres-type quarterly volume measure for component i in year $y-1$,

X^{y-1} is the level of the annually chained Laspeyres-type quarterly volume measure of the aggregate X in year $y-1$,

P_i^{y-2} is the annual chain deflator for component i in year $y-2$ and

P_X^{y-2} is the annual chain deflator for the aggregate X in year $y-2$.

4.25.   Formulae (4.9) and (4.10) are used when data are seasonally adjusted. In instances when chained volume data are not seasonally adjusted, contributions to year-on-year growth can be calculated by modifying formula (4.10) as follows:

$$cL_i^{(q,y-1)\rightarrow(q,y)} = \left[\left(\frac{P_i^{y-1}}{P_X^{y-1}}\right)\left(\frac{x_i^{q,y}-x_i^{q,y-1}}{X^{q,y-1}}\right) + \left(\frac{x_i^{q,y-1}}{X^{q,y-1}} - \frac{x_i^{y-1}}{X^{y-1}}\right)\left(\frac{P_i^{y-1}}{P_X^{y-1}} - \frac{P_i^{y-2}}{P_X^{y-2}}\right)\right] \times 100$$

(4.11)

where $cL_i^{(q,y-1)\rightarrow(q,y)}$ is the contribution of component i to the year-on-year growth of the aggregate X in quarter q of year y,

P_i^{y-1} is the annual chain deflator for component i in year $y-1$,

P_X^{y-1} is the annual chain deflator for the aggregate X in year $y-1$,

$x_i^{q,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q of year y,

$x_i^{q,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q of year $y-1$,

$X^{q,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure of the aggregate X in quarter q of year $y-1$,

x_i^{y-1} is the level of the annually chained Laspeyres-type volume measure for component i in year $y-1$,

X^{y-1} is the level of the annually chained Laspeyres-type volume measure of the aggregate X in year $y-1$,

P_i^{y-2} is the annual chain deflator for component i in year $y-2$ and

P_X^{y-2} is the annual chain deflator for the aggregate X in year $y-2$.

4.26.   When chained volume measures of an aggregate are calculated using the Laspeyres-type index number formula and the one quarter overlap method[59] is used for chain-linking, quarter-on-quarter contributions can be calculated using formula (4.9). Formula (4.9) can be modified to calculate contributions to year-on-year growth in the case of seasonally adjusted data as follows:

$$cL_i^{(q,y-1)\rightarrow(q,y)} = \left(\frac{P_i^{y-1}}{P_X^{y-1}}\right)\left(\frac{x_i^{q,y}-x_i^{q,y-1}}{X^{q,y-1}}\right) \times 100$$

(4.12)

[59] As described in the *Quarterly National Accounts Manual: Concepts, Data Sources, and Compilation (update)* (International Monetary Fund, forthcoming), the one quarter overlap technique requires compiling estimates for the fourth quarter of each year (e.g., the overlap quarter) at the weighted annual average prices of the current year in addition to estimates at the average prices of the same year. The ratio between the estimates for the fourth quarter at the average prices of the previous year and at the average prices of the current year provides the linking factor to scale the quarterly data up or down.

where $cL_i^{(q,y-1)\to(q,y)}$ is the contribution of component i to the year-on-year growth of the aggregate X in quarter q of year y,

P_i^{y-1} is the annual chain deflator for component i in year $y-1$,

P_X^{y-1} is the annual chain deflator for the aggregate X in year $y-1$,

$x_i^{q,y}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q of year y,

$x_i^{q,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure for component i in quarter q of year $y-1$ and

$X^{q,y-1}$ is the level of the annually chained Laspeyres-type quarterly volume measure of the aggregate X in quarter q of year $y-1$.

4.27.   When chained volume measures of an aggregate are calculated using the Fisher-type index number formula, the contributions to quarter-to-quarter growth in volume measures of an aggregate are calculated as:

$$cF_i^{(q-1,y)\to(q,y)} = \left[\frac{\left(\frac{\sum_{i=1}^{n} C_i^{q,y}}{\sum_{i=1}^{n} C_i^{q-1,y}}\right)\left[C_i^{q,y}\left(\frac{p_i^{q-1,y}}{p_i^{q,y}}\right) - C_i^{q-1,y}\right] + FQ^{q,y}\left[C_i^{q,y} - C_i^{q-1,y}\left(\frac{p_i^{q,y}}{p_i^{q-1,y}}\right)\right]}{\sum_{i=1}^{n} C_i^{q,y} + FQ^{q,y}\sum_{i=1}^{n} C_i^{q-1,y}\left(\frac{p_i^{q,y}}{p_i^{q-1,y}}\right)} \right] \times 100$$

(4.13)

where

$cF_i^{(q-1,y)\to(q,y)}$ is the contribution of component i to the quarter-on-quarter growth of the aggregate X in quarter q of year y,

$\sum_{i=1}^{n} C_i^{q,y}$ is the level of aggregate X at current prices in quarter q of year y,

$\sum_{i=1}^{n} C_i^{q-1,y}$ is the level of aggregate X at current prices in quarter $q-1$ of year y,

$C_i^{q,y}$ is the level of component i at current prices in quarter q of year y,

$p_i^{q,y}$ is the price of component i in quarter q of year y,

$p_i^{q-1,y}$ is the price of component i in quarter $q-1$ of year y,

$C_i^{q-1,y}$ is the level of component i at current prices in quarter $q-1$ of year y, and

$FQ^{q,y}$ is the Fisher volume index in quarter q of year y.

Formula (4.13) typically applies to seasonally adjusted data. In cases where the chained volumes are not seasonally adjusted, the formula can also be used to calculate contributions to year-on-year growth by replacing the terms with the appropriate non–seasonally adjusted terms.

d) Calculating contributions to growth using chained indices

4.28.   A number of countries are now calculating chained price and volume indices using either the Laspeyres-type or Fisher-type index number formula. Again, the Laspeyres-type index number formula is used more frequently as it is less complex to apply.

4.29.   When chained indices are calculated using the Laspeyres-type index number formula, the contribution of a component to the year-on-year growth of an aggregate index which is non–seasonally adjusted can be calculated using the following formula:

$$cL_i^{(t,y-1)\rightarrow(t,y)} = w_{y-1}^i \times \left(\frac{I_i^L - I_i^{t,y-1}}{I^{t,y-1}} \right) \times 100 + w_y^i \times \left(\frac{I_i^{t,y}-100}{I^{t,y-1}} \right) \times I^L \qquad (4.14)$$

where $cL_i^{(t,y-1)\rightarrow(t,y)}$ is the contribution of component i to the year-on-year growth of the aggregate index I in time period t of year y,

w_{y-1}^i is the weight of component i in the aggregate index in year $y - 1$,

I_i^L is the level of the index for component i in the link period L,

$I_i^{t,y-1}$ is the level of the time series for component i in time period t of year $y - 1$

$I^{t,y-1}$ is the aggregate index in time period t of year $y - 1$,

w_y^i is the weight of component i in the aggregate index in year y, $I_i^{t,y}$ is the level of the index for component i in time period y of year y and

I^L is the level of the aggregate index in the link period L.

In formula (4.14), t can represent a month or quarter.

4.30.   When seasonally adjusted chained indices are calculated using the Laspeyres-type index number formula, the contribution of a component to the quarter-on-quarter growth of an aggregate index can be calculated using the following formula:

$$cL_i^{(q-1,y)\rightarrow(q,y)} = w^i \times \left(\frac{I_i^{q,y}}{I_i^{q-1,y}} -1 \right)\left(\frac{I_i^{q-1,y}}{I^{q-1,y}} \right) \times 100 \qquad (4.15)$$

where $cL_i^{(q-1,y)\rightarrow(q,y)}$ is the contribution of component i to the quarter-on-quarter growth of the aggregate index I in quarter q of year y,

w^i is the weight of component i in the aggregate index,

$I_i^{q,y}$ is the level of the index for component i in quarter q of year y

$I_i^{q-1,y}$ is the level of the index for component i in quarter $q - 1$ of year y and $I^{q-1,y}$ is the aggregate index in quarter $q - 1$ of year y ,

Formula (4.15) can also be modified to calculate the contributions to month-on-month growth by changing the quarterly terms in the formulae to the monthly terms.

4.31.　When chained volume indices of an aggregate are calculated using the Fisher-type index number formula, the contributions to quarter-to-quarter growth in the aggregate index can be calculated using formula (4.13).

4.32.　When chained price indices of an aggregate are calculated using the Fisher-type index number formula, the contributions to quarter-to-quarter growth in the aggregate index can be calculated by interchanging the price terms with quantity terms in formula (4.13) as follows:

$$cF_i^{(q-1,y)\to(q,y)} = \left[\frac{\left(\frac{\sum_{i=1}^{n} C_i^{q,y}}{\sum_{i=1}^{n} C_i^{q-1,y}} \right) \left[C_i^{q,y}\left(\frac{q_i^{q-1,y}}{q_i^{q,y}} \right) - C_i^{q-1,y} \right] + FP^{q,y}\left[C_i^{q,y} - C_i^{q-1,y}\left(\frac{q_i^{q,y}}{q_i^{q-1,y}} \right) \right]}{\sum_{i=1}^{n} C_i^{q,y} + FP^{q,y}\sum_{i=1}^{n} C_i^{q-1,y}\left(\frac{q_i^{q,y}}{q_i^{q-1,y}} \right)} \right] \times 100$$

(4.16)

where

$cF_i^{(q-1,y)\to(q,y)}$ is the contribution of component i to the quarter-on-quarter growth of the aggregate index X in quarter q of year y,

$\sum_{i=1}^{n} C_i^{q,y}$ is the level of aggregate X at current prices in quarter q of year y,

$\sum_{i=1}^{n} C_i^{q-1,y}$ is the level of aggregate X at current prices in quarter $q - 1$ of year y,

$C_i^{q,y}$ is the level of component i at current prices in quarter q of year y,

$C_i^{q-1,y}$ is the level of component i at current prices in quarter $q - 1$ of year y,

$q_i^{q,y}$ is the quantity of component i in quarter q of year y,

$q_i^{q-1,y}$ is the quantity of component i in quarter $q - 1$ of year y and

$FP^{q,y}$ is the Fisher-type aggregate price index in quarter q of year y.

Formula (4.16) can be modified to calculate contributions to month-on-month growth by replacing the quarterly terms with the appropriate monthly terms. This formula typically applies to seasonally adjusted data. In cases where the chained volumes are not seasonally adjusted, the formula can also be used to calculate contributions to year-on-year growth by replacing the terms with the appropriate non–seasonally adjusted terms.

C.3. Ratio indicators

4.33.　A ratio indicator is obtained by dividing one data series by another data series. The data series in the numerator is not a component of the data series in the denominator. In many instances, a ratio indicator is calculated to relate the data series in the numerator to the size of the economy for international comparison. GDP is usually used as a proxy for the size of the economy. Since the data series in the numerator are typically measured at current prices, the GDP to apply in the denominator should also be measured at current prices. A ratio indicator which is calculated using GDP at current prices in the denominator is usually expressed as a

percentage. Examples of ratio indicators which are calculated using GDP at current prices in the denominator include:

- Current account balance to GDP ratio

- International investment position to GDP ratio

- External debt to GDP ratio

- Depository corporations domestic lending to GDP ratio

- Depository corporations broad money liabilities to GDP ratio

- Revenue of the general government sector to GDP ratio

- Expense of the general government sector to GDP ratio

- Net operating balance of the general government sector to GDP ratio

- Expenditure of the general government sector to GDP ratio

- Budget balance of the general government sector to GDP ratio

- Gross debt of the general government sector to GDP ratio

- Stock market capitalization to GDP ratio

The above ratio indicators, while simple to construct, can provide a good and effective signaling tool of impending economic problems. For instance, a worsening current account deficit to GDP ratio suggests the need for policy adjustments since it may give rise to questions regarding whether the imbalance is sustainable. Indeed, writing in the *Economist*, Summers (1995) cautioned that "close attention should be paid to any current account deficit in excess of five percent of GDP, particularly if it is financed in a way that could lead to rapid reversals". As another example, a deteriorating budget deficit of the general government sector to GDP ratio may result in increased government borrowing. This may result in increased interest rates and crowd out private sector investment. Thus, policymakers may need to devise appropriate policies to reduce the budget deficit to GDP ratio.

4.34.   Ratio indicators can also be calculated using data series other than GDP at current prices in the denominator. Examples include:

- GDP per capita

- Value added per person employed

- Value added per hour worked

- Employment to population ratio

- Household disposable income per capita

- Household saving per capita

- Household saving to household disposable income ratio

Estimates of GDP per capita, household disposable income per capita and household saving per capita are obtained by dividing the respective data series in the numerator by the size of the population. When measured in real or volume terms, changes in GDP per capita represent a proxy for changes in the average living standards of the population. Household disposable income per capita determines the average individual's ability to purchase goods or services. Household saving per capita and household saving to household disposable income ratio represent two different ways of looking at household saving. The former looks at saving from the perspective of the average individual. The latter (which is also known as the household saving

rate) relates household saving to the size of its disposable income. Falling household saving ratios may suggest the inability of disposable income to keep pace with household consumption. Negative saving ratios indicate that households are spending more than they are receiving as regular income and are financing some of the expenditure through credit (increasing debt,) through the sale of assets (financial or non-financial,) or by running down cash and deposits. Both value added per person employed and value added per hour worked are measures of labour productivity. If detailed data are available, the compiling agency can consider compiling labour productivity at the overall economy level and by industry. Value added should be measured in volume terms in order to remove the distortions caused by price changes. Measuring changes in labour productivity using value added per person employed has some shortcomings, as it is influenced by the sourcing of labour inputs and the shifting share of part-time employment in the workforce. Thus, a simple headcount of employed persons masks changes in the average hours worked due to the evolution of part-time work or the effects of variations in overtime, absence from work or shifts in standard hours. Consequently, it may be preferable to measure changes in labour productivity using value added per hour worked to correct for the effects of part-time employment. The employment-to-population ratio can be used to evaluate the ability of the economy to create jobs and is thus used in conjunction with the unemployment rate for a general evaluation of labour market conditions. Having a high ratio suggests that a significant proportion of the working age population is employed, which in general will have a positive effect on GDP per capita.

C.4. Share indicators

4.35.   A share indicator is obtained by dividing an individual component of an aggregate by the sum of all the components. The result is typically expressed as a percentage. However, unlike ratio indicators, the component in the numerator of a share indicator is a component of the aggregate in the denominator. Thus, the sum of share indicators across all the components will equal 100. Unlike ratio indicators, the component in the numerator of a share indicator is expressed in the same unit of measurement as the component in the denominator. For data series which are available in both current prices and volume terms, it is preferable to calculate share indicators using the data at current prices. This is because, as explained in Whelan (2002), data in volume terms are not additive if they are annually chained. This non-additivity explicitly invalidates the interpretation of the ratio of the component series to the chain-aggregate as being a share. Even when data in volume terms are calculated using a fixed-weight methodology so that the data are additive, calculating share indicators using such data may still not be appropriate since the ratios will change according to the chosen base year. On the other hand, using data at current prices to calculate share indicators usually gives an intuitive answer. For instance, suppose we want to know what proportion of output is being allocated towards capital investment. The ratio of nominal investment to nominal GDP gives a much cleaner answer than the corresponding real ratio: the nominal ratio tells us very simply what fraction of each amount spent is allocated to purchasing investment goods.

4.36.   Examples of share indicators which can be calculated using the data template for short-term statistics include:

- Share of industries in total value added

- Share of expenditure components in expenditure-based GDP

- Share of income components in income-based GDP

- Share of employment by industry in total employment

The first three share indicators basically depict the structural composition of the economy and show the contribution of each component to GDP. Analysing the share of industries in total value added may help policymakers assess the impact of targeting and promoting specific industries in their development plans. Studying the share of expenditure components in expenditure-based GDP may help policymakers understand whether the economy is becoming overreliant on, say, investment or exports, and formulate appropriate policies to rebalance the economy. Data on the share of income components in income-based GDP may indicate how the fruits of economic growth are shared between workers and businesses. The share of employment by industry in total employment is a simple and useful tool for assessing the segmentation and trends in the labour market.

Chapter 5
National data hubs for short-term statistics

A. Introduction

5.1.   Short-term statistics are characterized by the shorter length of the reference period than that of structural statistics (for example, one or three months) and the frequency of their compilation. It is important therefore that such information is made available to the users' community in an efficient and timely manner. The concept of a centralized place—a data hub—where this information is made available has a number of advantages, especially for short-term statistics and in the cases where the information is produced by different institutions.

5.2.   This chapter elaborates on the concept of a "centralized" data hub for short-term statistics to facilitate the dissemination and thus the use of short-term statistics. Section B describes the benefits of establishing data hubs. Section C presents key elements that should be taken into consideration when establishing such data hubs. Finally, section D presents examples of data hubs that have been established in a number of countries.

B. Concept and benefits of data hubs for short-term statistics

5.3.   In the context of this handbook, a data hub refers to a single access point to the information collected, compiled and disseminated by different institutions and therefore otherwise available in different institutions. The concept of a data hub or data portal reflects the visions of statistics as a public good and thus reflects the efforts of providing users with easier access to the statistics produced. This section highlights the importance of establishing a data hub at the national level, especially for short-term statistics.

5.4.   Because of the high frequency of compiling short-term statistics, the timely availability of the information is highly linked with its usefulness: monthly data on leading indicators, for example, are particularly useful for understanding turning points in business cycles when looked at shortly after from the reference period since they anticipate market evolution.

5.5.   It is often the case that short-term statistics are compiled and disseminated by various institutions in a country: the national statistical office, the central bank, line ministries, research institutes, etc., may collect different types of short-term statistics and sometimes even overlapping statistics. The information therefore may be fragmented and in order to have a comprehensive list of short-term statistics, users have to search for the required information.

5.6.   Pulling all the information together in a single entry point has certainly the advantage of providing the users with a one-stop access point to all short-term statistics and thus facilitating the access and the use of such information.

5.7.   Once the information has been put together, it becomes necessary to understand and explain potential differences among the statistics and, most importantly, to improve the

comparability of the information by harmonizing concepts and methods and by providing necessary metadata. Thus the establishment of a data hub also serves as an opportunity to improve the availability and comparability of the statistics compiled at national level and to strengthen the cooperation among the relevant institutions.

5.8.   It should be emphasized that establishing a national data hub that adheres to international statistical and dissemination standards such as SDMX would have the further advantage of facilitating the data transmission to international/regional organizations and reducing response burden to countries. Once data have been gathered in one place at the national level according to international statistical standards (regarding, for example, classifications, geographical coverage, temporal coverage, time of release etc. as well as dissemination standards), the data transmission to international/regional organization becomes just a matter of either transmitting data files or establishing automated routines that can automatically transfer data.

5.9.   The same concept of a national data hub is also applicable at international level: international/regional and subregional organizations collect overlapping sets of short-term statistics and, in order to improve the usefulness of these statistics for monitoring rapid and systemic changes in the global economy and financial markets, these statistics need to be made available at a single access point.

5.10.   There are various examples of such data hubs at the international level; most notably UNdata (http://data.un.org/), which is an Internet-based data service for the global user community. UNdata brings statistical databases within easy reach of users through a single entry point. Users can search and download a variety of statistical resources. UNdata was launched by UNSD in 2005 with the objectives to provide free access to global statistics, educate users about the importance of statistics for evidence-based policy and decision-making, and assist National Statistical Offices to strengthen their data dissemination capabilities. Another example is the OECD data warehouse (http://stats.oecd.org/) and OECD data portal (https://data.oecd.org/), both of which contain a wide range of short-term statistics for OECD countries and selected non-member economies.

5.11.   Other examples of data hubs include the initiative of the International Monetary Fund (IMF) on Special Data Dissemination Standards (SDDS), which aims to enhance the availability of timely and comprehensive statistics, therefore contributing to the formulation of evidence-based macroeconomic policies. The SDDS prescribes a list of indicators in terms of data coverage, periodicity and timeliness; access to the data by the public; the integrity of the disseminated data; and the quality of the disseminated data. Metadata for the indicators are maintained on the IMF's Dissemination Standards Bulletin Board (DSBB). The metadata are useful on their own, facilitating the monitoring of the observance of standards. The data are displayed on a National Summary Data Page (NSDP). The DSBB provides hyperlinks between the SDDS metadata and actual country data shown in the NSDP for all subscribers.

C.   Key features of data hubs

5.12.   The establishment of a central data hub (for short-term statistics) is not a simple exercise; it requires (a) a well-thought-through project plan which envisages the identification of the stakeholders (data providers), (b) the establishment of a proper coordination mechanism among the relevant institutions and (c) the establishment of an appropriate information security programme. All these aspects are described in detail in this section.

C.1. Identification of stakeholders

5.13.   When establishing a data hub, one of the first steps is the assessment of what statistics are produced in the country and in which institution since it is often the case that different institutions collect, compile and disseminate various (and sometimes overlapping) statistics. While this is particularly true in decentralized national statistical systems where, by design, statistical units are located in individual ministries/institutions dealing with the specific subject matter; it may also be the case in centralized statistical systems.

5.14.   Once the relevant agencies are identified, it is important that a dialogue be established among the institutions so that a proper and strong coordination mechanism can be put in place. Establishing and maintaining a data hub for short-term statistics requires not only a commitment from all the institutions involved to share data but also a commitment to regularly update the information according to specified and agreed rules. A successful establishment and maintenance of a data hub depends heavily on the active participation and strong commitment of all the institutions involved.

C.2. Coordination mechanisms

5.15.   Coordination mechanisms cover various aspects of the cooperation among institutions: (a) the role and responsibilities of each institution; (b) the identification of a coordinating institution; (c) the scope of the data hub, the modalities of the data sharing and data dissemination (including metadata); and (d) technical aspects related to the IT infrastructure.

5.16.   It should be emphasized that there is no one-size-fits-all solution, and every coordination mechanism is peculiar to the country's situation, as they have to be built within the institutional set-up and legal framework of the country.

a) Role and responsibilities of each institution

5.17.   The role and responsibilities of each institution to provide the statistics assigned to it should be properly specified to avoid any duplication in the statistics provided and any misunderstanding of the type of statistics the institution should produce. This is especially important as some short-term statistics in some countries are produced by private-sector organizations. Each institution should provide detailed metadata on its assigned statistics, as well as information on the frequency and timeliness of the series. Any differences from similar statistics produced by other institutions should be highlighted as well.

b) Coordinating institution

5.18.   To ensure that each institution fulfils its role and responsibilities properly, it would be useful to assign an institution to coordinate the work of the institutions which provide statistics to the data hub. In most countries, the coordinating institution would typically be the national statistical office since it is the agency responsible for coordinating statistical activities in public agencies, providing advice on statistical subject matters and promoting the observance of international statistical standards, with the objective of ensuring the production of a comprehensive set of integrated statistics through the use of harmonized nomenclatures, principles, recommendations and classification schemes.

c) Scope of the data hub

5.19.   An important decision to be taken when establishing a national data hub relates to the following aspects: which statistics to disseminate in the data hub, their periodicity (monthly, quarterly, etc.) and their timeliness (e.g., when to release the information). In this regard, the

data template for short-term statistics provides a structured guidance for the choice of the statistics by organizing statistics according to three tiers: Tier 1, which includes readily available short-term statistics and strategically important statistics (this tier also corresponds to the Principal Global Indicators); Tier 2, which includes statistics that are less readily available but which may still be strategically important; Tier 3, which includes statistics that are mainly country specific and respond to specific national policies. The data template provides also recommendations for the periodicity and timelines for each indicator in the template and thus serves as a starting point for the identification of the scope of the data hub.

5.20.   One of the benefits of a data hub is the improved comparability of the information provided. The establishment of a data hub should therefore be seen as an opportunity to review and improve the conceptual and methodological foundations of each indicator in line with international statistical standards. Often data collected by different institutions may differ in their underlying methodology, data collection methods and data disclosure. The availability of metadata in this regard is particularly important, and it is recommended for countries to use the format of metadata provided in this handbook at a minimum.

d)   IT infrastructure

5.21.   The actual form of the IT infrastructure of the data hub has to take into account a number of considerations regarding the desired functionalities of the data hub. The data hub could be as simple as a content-free web application which directs users to other web pages, or it can be a structured database which is populated with data from the participating institutions. In the latter case, more functionalities could be implemented to allow users to search the database; extract data and possibly analyse the data, as well as to allow for automated data sharing and data dissemination in order to provide a simple and efficient data transmission mechanism without adding an extra burden to the work routine.

C.3. Information security programme

5.22.   The agency responsible for maintaining the centralized data hub will also need to put in place an information security programme to protect the information in the data hub from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. The programme should ensure that the key principles of information security, i.e., confidentiality, integrity and availability are adhered to. Confidentiality means ensuring that the necessary level of secrecy is enforced at each junction of data processing and prevents unauthorized disclosure. This level of confidentiality should prevail while data resides on systems and devices within the network, as it is transmitted and once it reaches its destination. Integrity means maintaining and assuring the accuracy and completeness of data over its entire life cycle. This means that data cannot be modified in an unauthorized or undetected manner. Availability means ensuring reliability and timely access to data and resources to authorized individuals.

5.23.   The cornerstone of an information security programme is an information security policy, which is an overall general statement produced by senior management (or a selected policy board or committee) that dictates what role security plays within the organization and the agreed management strategy for securing information. An effective information security policy should be:

- Brief and concise

- Relevant to the audience

- Aligned with the needs of the agency responsible for maintaining the centralized data hub

- Aligned with the legislation and regulatory frameworks in which the agency operates

- Add value to the employee and the overall outcomes and behaviours the agency is looking to promote

5.24.   The agency responsible for maintaining the centralized data hub should also ensure that the principles of the information security programme and the information security policy are aligned with the Fundamental Principles of Official Statistics.

D.   Examples of national data hubs

5.25.   A number of countries, as well as international/regional and subregional organizations have established data hubs to provide easier access to data. This section covers the experience of a few countries in setting up their data hubs.

D.1.   Development of a central data hub in the Republic of Korea

5.26.   The Statistical Office of the Republic of Korea (KOSTAT) launched a project in 2006—the Integrated DB Project for National Statistics—to provide users with one-stop statistical services by standardizing and integrating the data produced by all the statistical organizations. This project came about from the fact that in the country more than 840 official statistics are produced by about 370 statistical agencies; each organization had its own procedures for the compilation and management of statistical data and the data were stored in very different ways: some in databases, while others in simpler forms as Microsoft Excel and Words files. The information therefore was not easily accessible to statistical users who had to search for data in many institutions using very different dissemination systems.

5.27.   To date KOSTAT provides through the Korean Statistical Information System (KOSIS) one-stop access to official statistics produced by over 120 statistical agencies in the country covering more than 500 subject matters. In addition, it provides integrated advanced analysis and a customized statistical service to various users; shares the integrated database with organizations, develops and distributes common service modules with the latest web service technology, and works to improve the legal system in support of such projects (covering, for example, guidelines on database management, cooperation among the organizations, etc.).

5.28.   Since the project required close relationships among organizations, KOSTAT established a working-level committee among relevant organizations to develop the integrated database and the portal service system and to share the experience of system-development among organizations. This entailed a number of staff visits to various organizations to understand their current database systems and dissemination methods (through databases, printed publications, files, etc.) and to explore possibilities for data sharing.

5.29.   At the same time, work was carried out to include in the Statistics Act an article regarding "Building the statistical database". According to the Act, statistical organizations should build statistical databases and provide relevant data for linking and integrating the statistical databases, if necessary. Clear roles and responsibilities of the organizations involved were established and agreed upon.

5.30.   Another important aspect of the project was the assistance provided by KOSTAT to improve or develop statistical databases in relevant organizations. Workshops were regularly organized to strengthen ties among statistical organizations on the implementation of the project.

5.31.   The integrated database, KOSIS, is available on KOSTAT's website, and it features an automated data retrieval system from the relevant organizations which adapts to different data systems at origin. Some institutions use common web-service modules for the data provisions which, in turn, facilitate the data transmission. The Integrated Database also features a user-friendly interface for data search (e.g., by topic, type of survey, organization, integrated index search, etc.).

5.32.   Figure 5.1 provides a snapshot of KOSIS. KOSIS contains structural statistics as well as a large number of short-term statistics (including visualizations such as the Business Cycle Clock).

Figure 5.1
Korean Statistical Information System (*KOSIS*)

Source: http://kosis.kr/eng/.
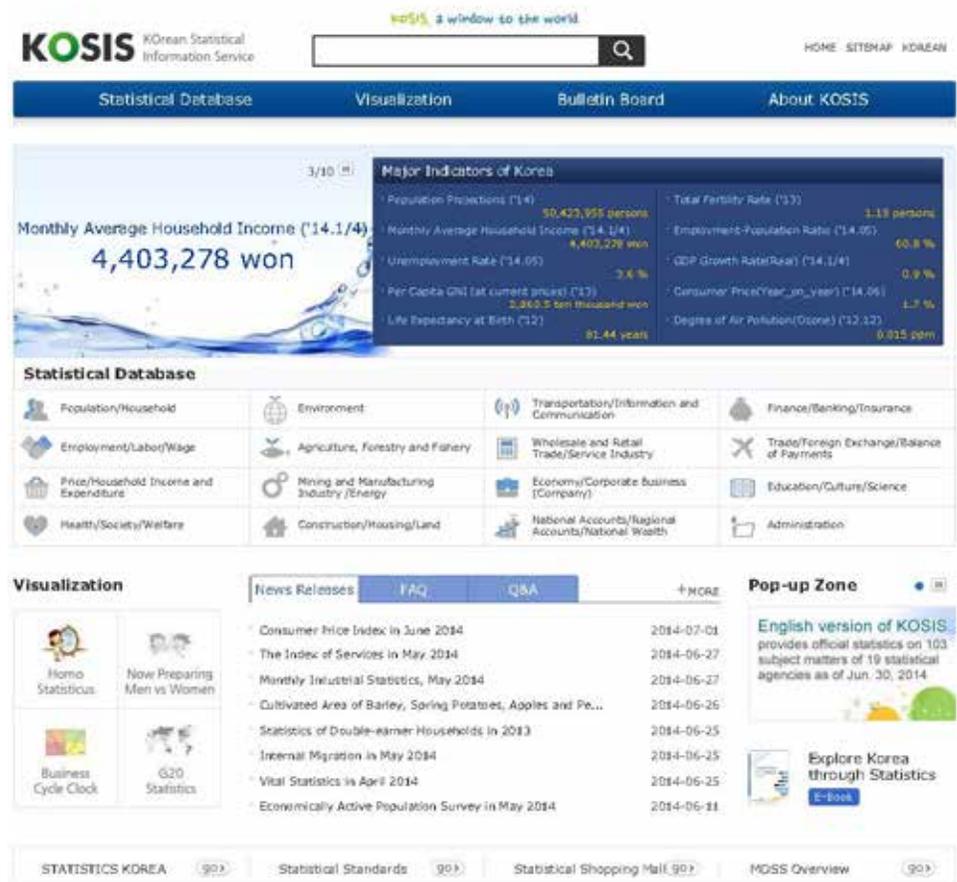
D.2. Development of a data hub in India

5.33.   India has a federal system where statistics are often compiled by both central and regional governments. In addition, there are a number of ministries dealing with a particular subject, which include statistical units dealing with the specific subject matter. The National Statistical Office (NSO) is entrusted with the responsibility of coordination, prescribing standards, compilation of national-level statistics and providing guidance to the central and regional agencies in the matter of production and dissemination of statistics of importance at the national and regional level. Surveys and censuses are also conducted periodically by the NSO and other agencies under the guidance of the NSO to generate time series on important topics for planning and policymaking.

5.34.   The coordination among all the relevant agencies is therefore particularly important in such a context where, because of the high frequency of data collection/compilation and data sharing, the commitment of all the institutions involved is particularly important for the success of the data hub.

5.35.   An example of a data hub in India is represented by the National Summary Data Pages (NSDP) set up as part of the IMF Special Data Dissemination Standards (SDDS) (see Figure 5.2 for an excerpt). The NSDP, hosted by the Ministry of Finance, gathers selected structural and short-term statistics from the Ministry of Finance, as well as from other institutions (including the National Statistical Organization of the Ministry of Statistics and Programme Implementation): www.finmin.nic.in/national-summary-data-page-0.

5.36.   The NSDP is prepared according to the standards and quality of data which are made available in the Data Standards Bulletin Board (DSBB) of the IMF. The arrangement for data dissemination is merely on the basis of linking the relevant web pages.

Figure 5.2
Excerpt from the National Summary Data Pages of India

Source: www.finmin.nic.in/national-summary-data-page-0

D.3. Development of a data portal in the United Arab Emirates

5.37.   The Federal Competitiveness and Statistics Authority (FCSA) of the United Arab Emirates has set up a data portal for disseminating, analysing and visualizing statistical data for the country and its provinces and districts. The data portal project consists of five main components: a UAE Statistics, Visualization, Report Builder, data collection platform (web-based templates), and UAE Rankings. FCSA has also led a joint endeavour with the UAE Telecommunication Regulation Authority (TRA) to build the UAE open-data platform, and the UAE SDGs portal.

5.38.   To develop an integrated national statistical system covering federal and local partners in the United Arab Emirates, FCSA implemented a multicomponent integrated applications approach following a well-organized process covering collection, management and dissemination of data established to ensure an integrating data collection process between FCSA, local statistical centres and other data providers. The data collection component consisted of a back-end platform used to create data collection templates. This component is very important to harmonize and standardize data collection processes and guarantee data integrity within the national statistical system and the different dissemination channels.

5.39.   The data portal hosted by FCSA at http://datastat.fcsa.gov.ae/, provides several features for data search, analysis, visualization and reporting statistical data for the United Arab Emirates at the national and regional level. The key features of the Statistical Data Portal include: (a) data search that enables users to easily perform a data search over the entire data portal, (b) interactive maps to help visualize and compare data across geographic regions and time, (c) at-a-glance visualizations that provide snapshots for the country or a specific region/topic, (d) ad hoc interactive report builder for data analysis and visualization (for power users), (e) bulk download to enable users to extract data from the portal into various external formats, (f) customized personal library for sharing datasets; visualizations and other reports/results, and (g) administrative tools to manage various contents within the data portal. Figure 5.3 shows screenshots for the portal report builder and visualization (dashboard).

Figure 5.3
The data portal of the United Arab Emirates
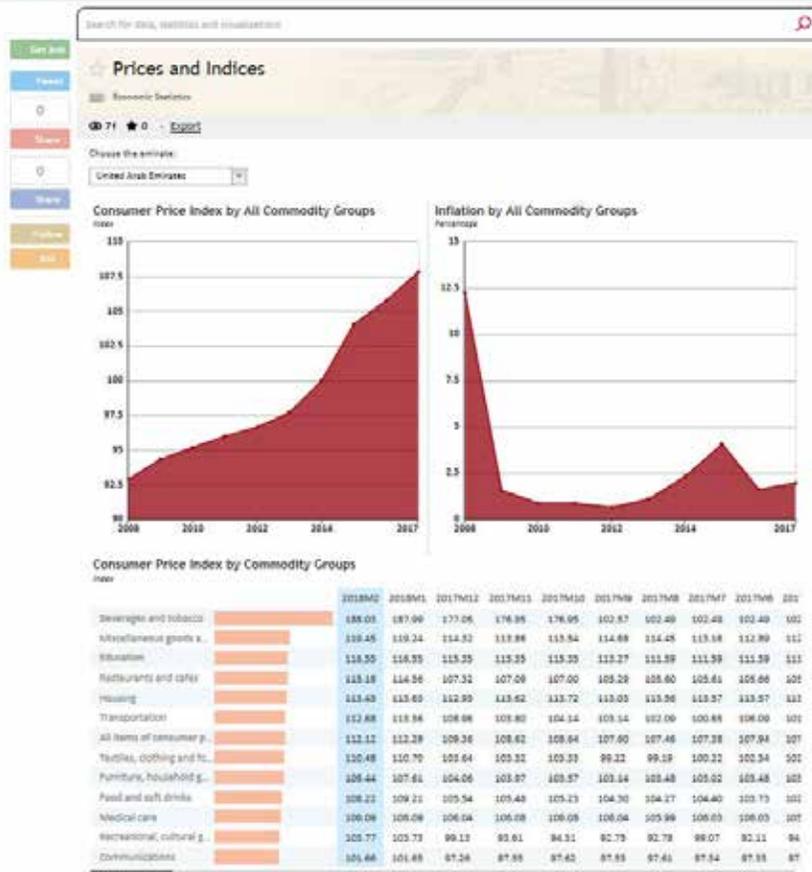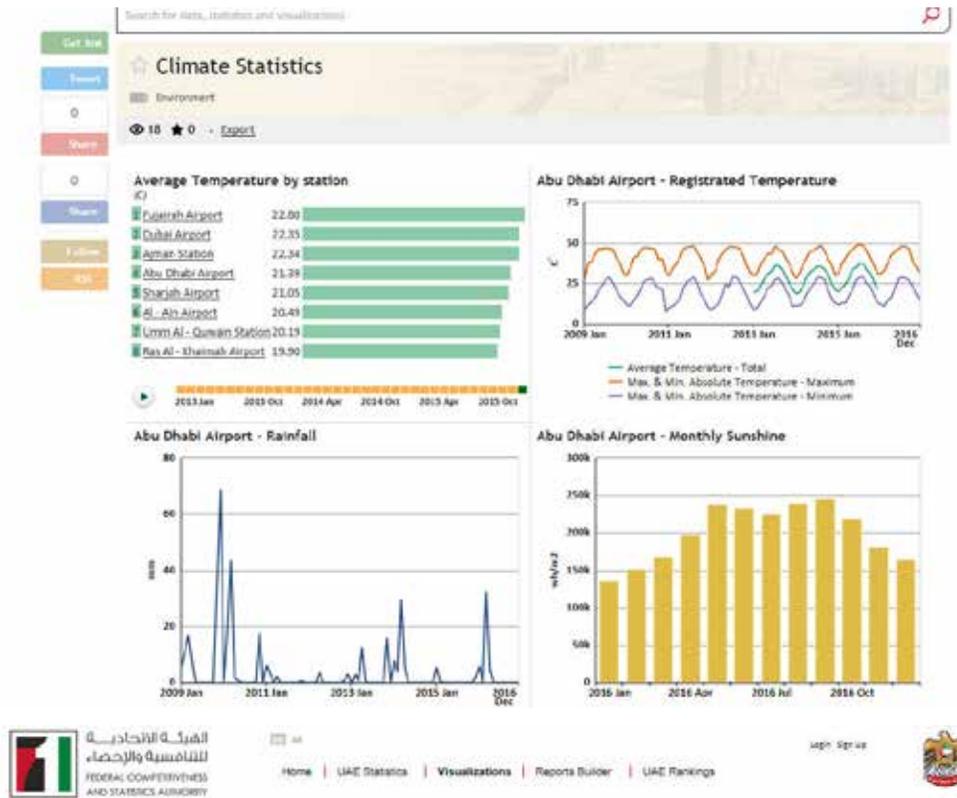
Figure 5.3 (continued)
The data portal of the United Arab Emirates
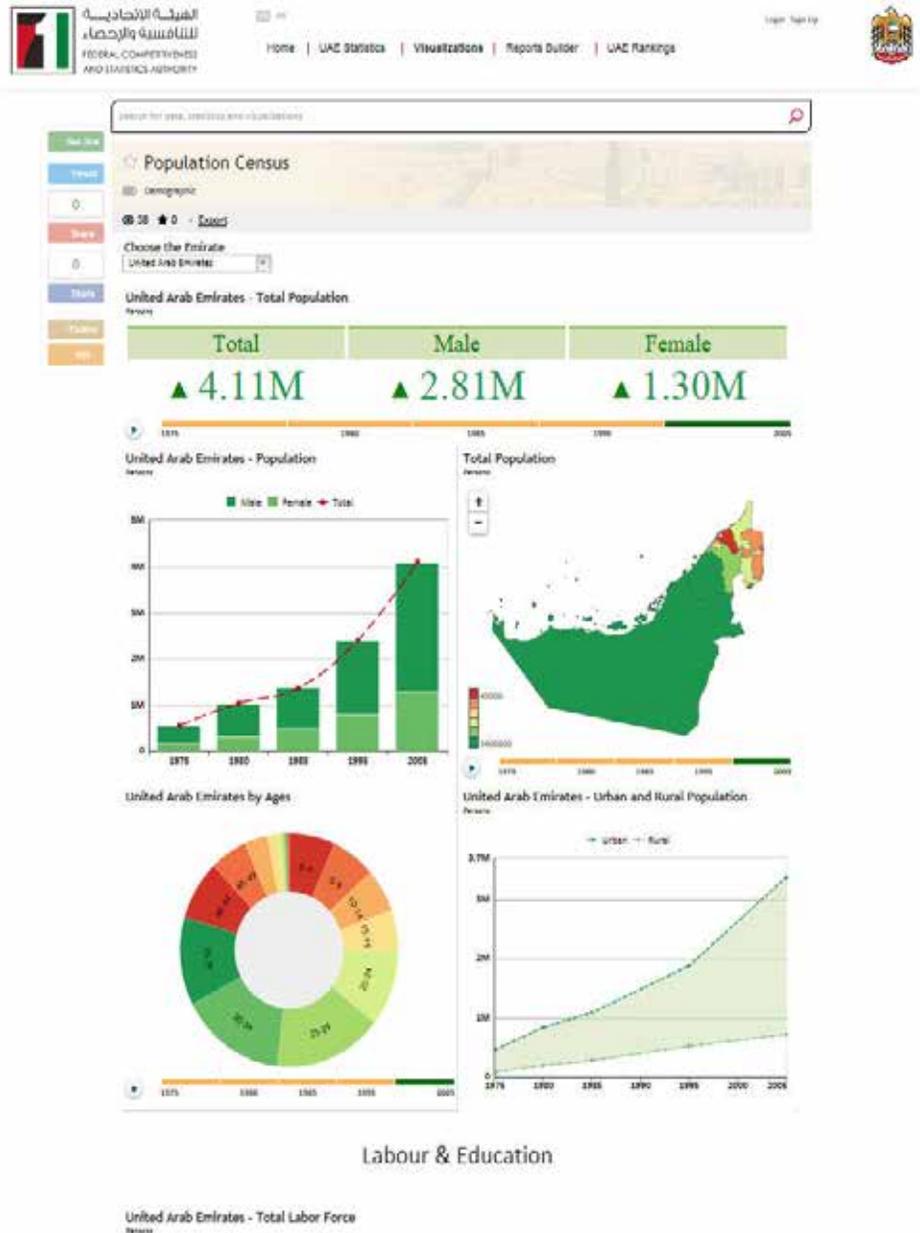
5.40.   During the establishment of the data portal it was recognized that the harmonization of concepts, definitions and statistical classifications among institutions in the country was particularly important. In this regard, FCSA had developed and launched the Statistical Quality and Standards Gate to serve as the methodological reference and released it online for all users.

5.41.   In order to harmonize the timeliness of the statistics, FCSA worked first on the harmonizing the timing of the statistical processes by developing the national statistical strategy and producing the Advanced Release Calendar. Subsequently, it worked on developing the capacity of partners through joint coordination teams and task forces in order to use the same survey tools for statistical programmes.

5.42.   FCSA conducted several meetings and workshops with partners and key users in order to make an assessment of their needs and develop a user-friendly product.

5.43.   The new official open-data portal of the UAE Government, http://bayanat.ae, was implemented using the Comprehensive Knowledge Archive Network (CKAN) open-source platform. The platform enables federal and local government entities to collaborate and to enable community access to UAE data, thereby enhancing citizen participation and government transparency. It provides structured and machine-readable data following the international open data standards, in addition to supporting several features such as direct downloads, application programming interfaces (APIs) and visualizations.

Figure 5.4
Welcome page of the UAE data portal
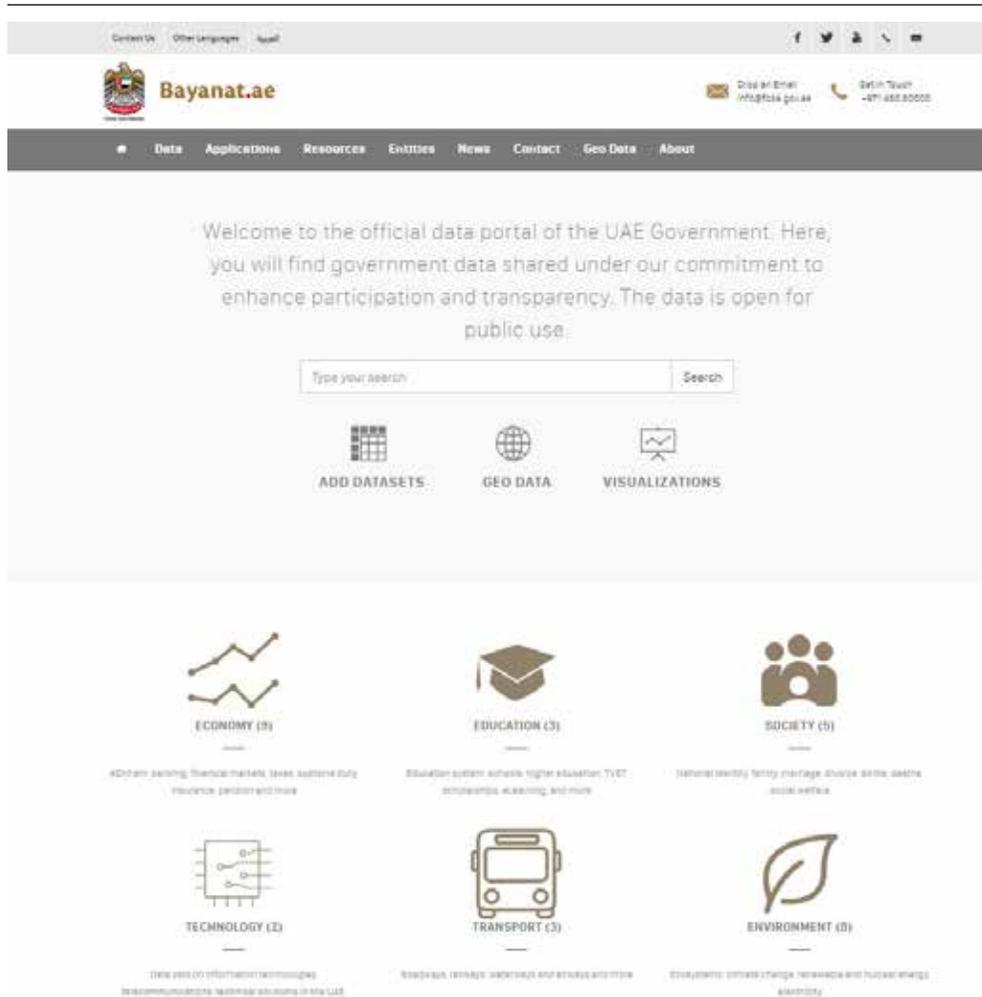
5.44.   The official portal of the SDGs in the UAE, http://uaesdgs.ae/, was built to highlight the UAE's efforts towards achieving the United Nations 2030 Agenda. In addition, it enables the government to get access to its aspirational set of goals and targets and provide strategic direction for policy reform in the UAE, and to monitor and communicate progress made towards those aspirations both, to the citizens of the UAE and the international community. It provides four sections: (a) Goals page, which provides information cards about the goals, their implementation, aims and more; (b) Initiatives and projects page, which includes quick and easy access to all initiatives and projects in the UAE to implement the SDGs; and (c) ACT page, which encourages citizens to participate in an initiative to serve any of the United Nations 17 Sustainable Development Goals; (d) Resources page which provides access to UAE SDG reports from Goals to Reality.

Figure 5.5
The UAE portal for the Sustainable Development Goals
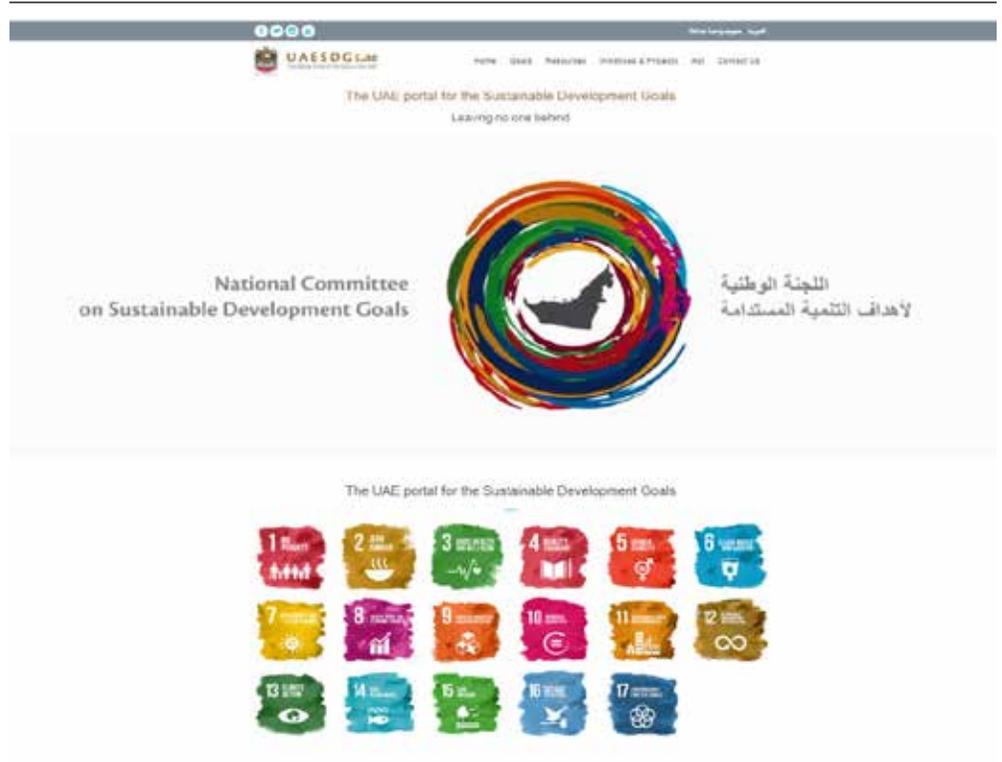
Developing a national implementation programme for the data template for short-term statistics

A. Introduction

6.1.   This chapter provides guidance on how to develop an implementation programme that can sustain the collection, processing and dissemination of short-term statistics in the data template to support sound macroeconomic management and evidence-based policy formulation. The chapter first discusses the issues to consider when preparing the implementation programme. It then describes a self-assessment questionnaire that a country can consider using to determine the status of the short-term statistics that are currently being compiled by the various agencies in the country. The questionnaire would help to determine which short-term statistics a country should compile to meet policy needs. The chapter concludes by describing the consolidation of the statistical requirements and the assessment of the current status of short-term statistics into an action plan to address the data gaps in the collection and dissemination of the current set of these statistics.

B. The principles for an implementation programme

6.2.   This section discusses the issues to consider in preparing a programme of work for implementing the data template for short-term statistics. Given the close relationship between the short-term statistics in the data template and the statistics required for compiling national accounts, it is recommended to incorporate the short-term statistics implementation programme into the national programme for implementing the 2008 SNA and supporting statistics.

6.3.   The efficiency and sustainability of the implementation programme for the data template for short-term statistics depend on the following principles: (a) strategic planning, (b) coordination, monitoring and reporting and (c) improving statistical systems. These principles take as a starting point the differences in the availability of short-term statistics in countries and acknowledges the need for coordinated action and emphasizes the need for close cooperation with stakeholders in the national statistical system (NSS).

6.4.   These principles can be operationalized through the following instruments and modalities: (a) use of national strategies for the development of statistics (NSDS) as the strategic planning framework; (b) a programme information structure built around the statistical production process, and compliance to various international standards and best practices; and (c) the modalities of statistical capacity building such as enhanced dissemination channels and advocacy.

B.1.   Strategic planning

6.5.   It is proposed that countries use strategic planning frameworks to develop a programme for implementing the data template for short-term statistics. Strategic planning has a number of benefits. Firstly, it is the best way to obtain political and financial support for investment in statistics. Secondly, it can be used to identify current strengths and weaknesses in producing short-term statistics and the underlying basic source data. Thirdly, it can be used to lay out a schedule of tasks to remedy the weaknesses. Fourthly, it can be used by countries to produce the information needed for monitoring their own economic development programmes.

6.6.   To avoid wastage of resources and reduce their burden, countries are encouraged to develop their implementation programme for the data template for short-term statistics using the best practices of existing initiatives such as the framework of national strategies for the development of statistics (NSDS). The NSDS is the most widely used tool for statistical planning in developing countries. A statement of strategy, taking into account the national and regional policy needs, is an important step to establish a road map for developing the statistics in the data template for assessing economic performance in the short term. For this purpose, it is proposed that countries establish a statement of strategy as a first step in developing an implementation programme for the data template at the national level and to incorporate this statement of strategy in the review of their NSDS.

6.7.   In developing the statement of strategy, consultations are needed, preferably in a national seminar, with all stakeholders, policy planners and other users including academia and the business community. Such a discussion is expected to help the national statistical office to prioritize the problem areas and ultimately write a plan for improving the compilation of short-term statistics.

6.8.   The basic elements of a statement of strategy include a mandate, a mission statement, values, high-level goals, specific goals and required activities. Table 6.1 provides an outline of a statement of strategy. For the purpose of an implementation programme for the data template for short-term statistics, a statement of strategy could be, for example, "The development of a programme for the reliable and timely compilation and dissemination of high-quality short-term statistics to meet the data needs of policymakers in a dynamic global socioeconomic environment." The statement of strategy represents the overall objective for the successful implementation of the data template to enable the evaluation of economic performance and the national and regional economic policy objectives.

Table 6.1

Outline for a statement of strategy

Mandate		
Policy needs	**Legal Mandate**	**International Standards**
Regional and national policy objectives	Statistics Act	UN Fundamental Principles of Official Statistics; Data Quality Assessment Framework (DQAF); 2008 SNA, BPM6, GFSM, ISIC Rev.4
Mission statement		
The reliable and timely compilation and dissemination of high-quality short-term statistics		
Values		
• Statistical professionalism		
• Independence and integrity		
• Excellent service to our customers		
• Respect and understanding for our data suppliers		
• Value for money		

High-level goals		
• Improve the scope, quality and timeliness of short-term statistics		
• Minimize the burden on respondents		
• Increase the use of administrative data for statistical purposes		
• Achieve greater efficiencies using best practices		
• Raise public awareness and use of short-term statistics		
Specific goals		
• Compile the short-term statistics in the data template for policy needs		
• Develop a national central data hub for short-term statistics to facilitate the early detection of changes in economic activity		
Required activities		
Modernization of the national regulatory and institutional framework by strengthening	**The upgrading of statistical infrastructure**	**The upgrading or development of statistical operations**
• The functioning of the NSS	• 008 SNA compliance	• Monthly price statistics
• Statistical regulation	• Classifications	• Monthly and quarterly production and turnover surveys
• Management practices	• Registers and frames	• Economic activity surveys (structural business statistics and short-term business statistics)
• Personnel	• Data collection	
• Information and Communication Technology	• Data processing	• Household income and expenditure surveys
	• Date dissemination	• Informal sector surveys
		• Employment surveys
		• Administrative data

6.9.   The *mandate* for the statement of strategy is determined by national and regional policy objectives and underpinned by the regulatory and institutional framework through a statistics act and international statistical standards such as, the United Nations Fundamental Principles of Official Statistics, 2008 SNA, BPM6, GFSM, ISIC rev 4, etc.

6.10.   The *mission statement* describes the purpose, users, outputs, markets, philosophy and basic technology used to realize the strategy. In other words, what needs to be accomplished, for example, "The reliable and timely compilation and dissemination of high-quality short-term statistics".

6.11.   The set of *values needs* to reflect the values and principles portrayed by the United Nations Fundamental Principles of Official Statistics to produce useful high-quality data that will have the confidence of users of statistics. Values include, for example, statistical professionalism, independence and integrity, excellent service to customers, respect and understanding for data suppliers, value for money, etc.

6.12.   *High-level goals* represent the overall accomplishments to be achieved. These goals aim to address important issues, which are identified during the assessment phase. The goals should be creative and forward-looking by being specific, measurable, relevant and time-bound. High-level goals could include improvement in the scope, quality and timeliness of short-term statistics, minimizing the burden on respondents, increasing the use of administrative data for statistical purposes, achieving greater efficiencies using best practices, raising public awareness and using short-term statistics, etc.

6.13.   The *specific goals* describe the ultimate results that need to be accomplished for fulfilling the vision described in the statement of strategy. The specific goals for the data template implementation programme could be: "To compile the short-term statistics in the data template for policy needs and to develop a national central data hub for short-term statistics to facilitate the early detection of changes in economic activity."

6.14.　To reach the specific goals particular activities are required. To determine these *required activities* an assessment of the national statistical system needs to be carried out to determine the adequacy of the national statistical production processes to support the compilation of the statistics in the data template.

B.2. Coordination, monitoring and reporting

6.15.　The principle of coordination, monitoring and reporting ensures that the roles of each compiling agency for the short-term statistics are clear and their actions are complementary and effective. Coordination comprises the timing and sequencing of events. Monitoring comprises assessing the efficiency of assistance to improve the availability and compilation of short-term statistics, evaluating lessons learned and using resources effectively. Reporting communicates progress and operational issues to interested stakeholders. Better coordination, monitoring and reporting collectively help meet national and regional goals, as well as providing a means to evaluate international indicators against agreed benchmarks to assess the progress of expanding the availability, scope and compliance of short-term statistics. Monitoring, reporting and evaluating should also be used to identify risks to the implementation process so that timely interventions can be made to keep plans on track.

6.16.　Countries can consider applying a programme information structure to facilitate the coordination, monitoring and reporting on the status of the compilation of short-term statistics. The proposed information system should be built on the structure of the statistical production process and an established data-quality assessment framework for evaluating statistical project outcomes. Together, the two dimensions will allow countries to develop a coherent information system for programming, monitoring and reporting. The statistical process dimension will be used to programme and monitor the implementation and the IMF Data Quality Assessment Framework (DQAF) dimension will be used to evaluate and report on outcomes.

6.17.　The statistical production process can be stylized in a five-part structure: (a) Institutional setting, (b) Registers and frames, (c) Surveys and administrative sources, (d) Integration frameworks and (e) Dissemination. This structure is built on the UNECE Classification of Statistical Activities.

B.3. Improving statistical systems

6.18.　The principle of statistical system improvement is operationalized through the strengthening of the national statistical system, covering each of the building blocks of the statistical production process. This principle is especially important in the context of short-term statistics, as it is clear from the data template that these statistics are typically produced and disseminated by a myriad of government and even private sector organizations in many countries.

6.19.　Strengthening the NSS includes centralized data hubs, modernizing the national statistical system by using an integrated statistics approach and improving advocacy for the use of short-term statistics.

6.20.　A centralized data hub provides a convenient one-stop portal to facilitate access to short-term statistics by key stakeholders and users. Consolidating short-term statistics in a centralized data hub will also encourage the various compiling institutions to assess, understand and explain potential differences among these statistics and, most importantly, to improve the comparability of these statistics by harmonizing concepts and methods and by providing the necessary metadata. Thus, the establishment of a centralized data hub also serves as an opportunity to improve the availability and comparability of the short-term statistics compiled at the national level, strengthen the cooperation among the relevant institutions and the capacity

of the statistical system. In addition, establishing a national centralized data hub that adheres to international statistical and dissemination standards would have the further advantage of facilitating the data transmission to international/regional organizations and reducing the response burden to countries. Once data have been gathered in one place at the national level according to international statistical standards (regarding, for example, classifications, geographical coverage, temporal coverage, time of release, etc., as well as dissemination standards), the data transmission to international/regional organizations can become just a matter of either transmitting data files or establishing automated routines that can automatically transfer data.

6.21.　　An integrated statistics approach aims to produce statistics that present a consistent and coherent picture of economic activities for policy, business and other analytical users through the use of common concepts, definitions, estimation methods and data sources for data reconciliation. It aims to resolve problems such as duplication and missing respondents and use of different concepts, definitions and classification schemes by moving to a cross-functional holistic statistical production model from a narrow, stovepiped one. This approach supports the statistical reconciliation of the various basic data sources with the macroeconomic accounts such as the national accounts. Integrated statistics rely on the application of statistical integration frameworks and techniques for the compilation of consistent and coherent macroeconomic and supporting basic statistics. It comprises the SNA as conceptual organizing framework, adequate institutional arrangements and an integrated statistical production process. Further details on the main components of an integrated approach to statistics are provided in the handbook *Guidelines on Integrated Economic Statistics*.[60] The handbook aims to assist countries in developing the statistical and institutional capacity to produce the basic statistics to improve the scope, detail and quality of the national accounts and supporting statistics, as well as most of the short-term statistics in the data template.

[60] The publication is available on unstats.un.org/unsd/nationalaccount/docs/IES-Guidelines-e.pdf.

6.22.　　For the implementation strategy to be carried out successfully, countries should also take ownership by including it in the development of their national statistical systems. Therefore, advocacy is needed to stimulate demand for short-term statistics and encourage the use of these statistics. Advocacy will play an important role in encouraging national support for acquiring and maintaining viable short-term statistics and to communicate their policy relevance.

C.　Statistical system information fact sheet

6.23.　　Countries can consider developing a statistical system information fact sheet as presented in table 6.2 to facilitate the assessment process and the development of the statement of strategy. The fact sheet allows for collating information available at the national level and at various international organizations on the national statistical system, bringing together information relevant for the development of the programme to implement the data template.

Table 6.2
Statistical system information fact sheet

Statistical System Information Country name		
Country	Statistical agency	Address: Email: Website:
	Legal Framework	Statistics Act
	Strategic Framework	NSDS/Statistical Master Plan
	Relevant documents	Development plan
	Projects/Programmes	2008 SNA Implementation programme (ISWGNA)
		STATCAP (World Bank)
		IBRD/IDA (World Bank)
		TFSCB (World Bank)
	Data	NSO website
	Statistical standards	National accounts methodology
		National accounts base year
		Balance of payments manual in use
		Government finance accounting concept
		CPI base year
		PPI base year
		Export price index base year
		Import price index base year
UNSD	Relevant documents	MDG report
	Data	Country profile
		National Accounts
		UN-NAQ Latest submission
		UN-NAQ MRDS
		Short-term statistics
IMF	Relevant documents	Country report
		DQAF/ROSC
		e-GDDS/SDDS/SDDS Plus
	Data	World economic outlook
World Bank	Relevant documents	PRSP
		CAS
	Data	Country data
Eurostat	Relevant documents	Strategy paper
	Data	
PARIS21	Relevant documents	National strategies for the development of statistics

6.24.   The country-level information reflects on the availability of a statistics act, a strategic framework for statistics (NSDS or Statistical Master Plan); relevant documents on development plans; current statistical projects or programmes, such as the 2008 SNA implementation programme; World Bank programmes, such as STATCAP- Trust Fund for Statistical Capacity Building (TFSCB) and those of the International Bank for Reconstruction and Development

(IBRD) and International Development Association (IDA); data dissemination platforms such as websites and publications; the statistical standards in use for short-term statistics; and the base years for national accounts and price indices. The information available from the international organizations include the Development of National Statistical Systems information and Millennium Development Goals (MDG) reports available at the UNSD website, the Data Quality Assessment Framework (DQAF) and Reports on the Observance of Standards and Codes (ROSC) and the e-GDDS/SDDS/SDDS Plus of the IMF, Poverty Reduction Strategy Papers (PRSP) and Country Assistance Strategies (CAS) papers by the World Bank; and the country data on economic statistics disseminated by these organizations.

6.25.   The country information fact sheet provides a consolidated overview of current national policy priorities and plans, currency of statistical standards and methods which are used to compile the relevant short-term statistics and extent of current assistance to improve the compilation of short-term statistics. These inputs are useful in the subsequent development of a programme of work to mitigate statistical and institutional weaknesses and gaps in the compilation of short-term statistics in the country.

D.   Self-assessment questionnaire for short-term statistics

D.1. Purpose

6.26.   This handbook recommends the use of a self-assessment questionnaire to help countries assess the current capability of their national statistical system to compile the short-term statistics in the data template. Based on this self-assessment, countries would be able to develop a statement of strategy for improving the availability and quality of short-term statistics.

D.2. Approach

6.27.   The self-assessment questionnaire uses taxonomies based on the Conference of European Statisticians Classification of International Statistical Activities. This classification comprises five broad types of statistical domains that provides for a structured presentation of statistical activities. Domains 1-3 constitute subject area classifications dealing with the outputs of the statistical process, namely, demographic and social statistics (domain 1), economic statistics (domain 2) and environment and multi-domain statistics (domain 3). Domains 4 and 5 cover substantive issues that are more process- and organization-oriented and the managerial aspects of official statistics. The assessment tool, which is shown in Annex 1, cross-classifies the statistical activities of the outputs of the statistical process from domain 2 and selected activities from domains 1 and 3 with those of the process- and organization-oriented and managerial aspects of official statistics from domains 4 and 5. This cross-classification is needed as a number of cross-cutting and common institutional, managerial, strategic and technical issues may need to be resolved in order to enhance the production and dissemination of short-term statistics that present a consistent and coherent picture of economic activities for policy, business and other analytical users. The issues range from improving the management culture of the organization; improving the statistical system; adapting the legal and institutional environment; the use of common concepts; the use of integration frameworks, harmonization, data exchanges and other statistical techniques for reconciling data sets for the compilation of coherent macroeconomic statistics, the use of business registers; the introduction of integrated survey and sampling design; the reliance on administrative data sources; and common integrated dissemination procedures.

6.28.   The questionnaire arranges the specific questions on the classification, metadata and data reporting, statistical production process and technical cooperation and capacity-building for the 12 categories of data indicators in the data template of the short-term statistics. Common questions in the assessment tool include the periodicity and timeliness of the data series, the international standards/best practices adhered to and whether the data are compiled from surveys and/or administrative data.

D.3. Guidelines to completing the self-assessment questionnaire

6.29.   The questionnaire consists of categories representing the 12 categories in the data template for short-term statistics. For each category there are four sets of questions related to each data series in the data template:

a)   Dissemination and communication;

b)   Metadata and data reporting;

c)   Data sources;

d)   Technical cooperation and capacity-building.

6.30.   The relevant box for each question needs to be marked with an "X". All questions need to be completed. A description of the questions in each of the sets are described below:

Dissemination and communication

6.31.   Questions in this set are aimed to assess practices relating to data dissemination and communication. The questions refer to the availability of an advance release calendar, punctuality in adhering to the schedule announced, simultaneous access to all users, accessibility of general statistics other than routinely disseminated to users upon request, availability of a centralized data hub with a single access point to the information and the availability of metadata for the data.

Metadata and data reporting

6.32.   This set contains questions on the international statistical standards used for compiling economic statistics (SNA, ISIC and CPC), the periodicity and timeliness of the estimate, latest reference year, seasonal adjustment and the revision cycle of the estimates. It also contains questions on the use of COICOP, COFOG and COPNI when compiling data on final consumption, expenditure by households, general government and NPISH.

Data sources

6.33.   Questions included in this set relate to sources of data (surveys or administrative data) for compiling estimates, periodicity of the production surveys, sources of input data and periodicity of the input survey.

Technical cooperation and capacity-building, priorities and plans for improvement

6.34.   Questions relating to technical cooperation and capacity-building contained in this set include the name of the agency providing external technical assistance, the year in which it was received and the need for external technical assistance.

E.   Requirements for compiling short-term statistics

6.35.   Having an overview of the status of the compilation of short-term statistics, countries can develop plans to compile those short-term statistics which are not currently being compiled and which are considered to be important to policymakers and other stakeholders. For this purpose, it is important to take into account the requirements and best practices for compiling the short-term statistics represented in the data template. Table 6.3 provides a summary of the international standards/best practices that are relevant for the various statistical activities.

Table 6.3
International standards/best practices for statistical activities

Statistical activity	International recommendations/best practices
Dissemination and Communication	
Dissemination of statistical output	Statistical output should be disseminated through either paper publication, or electronic format such as on the website of the compiling agency.
Advance release calendar and punctuality in its adherence	The compiling agency should announce in advance (with due publicity) the schedule for releasing its statistical output and the announced schedule should be adhered to in normal circumstances.
Accessibility and serviceability	All users should have simultaneous access to the disseminated information. Also, in addition to routinely disseminated statistics, other general statistics should be made available to users upon request.
Metadata and data reporting	
SNA framework used	2008 SNA indicate the reasons for deviating from its recommendations where applicable.
Classifications used	ISIC Rev. 4 and CPC 2.1 respectively or national classifications based on these standards
Periodicity	For structural statistics—annual. For monitoring recent trends and turning points of the economy—quarterly and monthly
Timeliness	Quarterly—typically 1-2 quarters after the close of the reference quarter depending on the statistics concerned
	Monthly—typically 1-3 months after the close of the reference month, depending on the statistics concerned
Seasonal adjustment	Short-term statistics should be seasonally adjusted.
Data sources	
Surveys	Scientific sample surveys should be conducted regularly to collect current information.
Administrative sources	Progressive use of data from the administrative sources should be encouraged. Administrative data should be available in a format which is consistent with international standards and practices.
Small and informal sector enterprises	Sample surveys based on area frame should be used for exhaustive coverage of small and informal sector enterprises.
Technical cooperation and capacity-building, priorities and plans for improvement	
Areas for external technical cooperation and its prioritization	The compiling agency should identify the areas for seeking external technical assistance and should prioritize.

F.   Consolidation of statistical requirements, assessment and actions

6.36.   An important step in developing the statement of strategy is to determine the goals for the implementation of the data template and requirements to reach those goals. For this purpose, countries can consider using the outline in table 6.4 for setting goals and actions to reach these goals. The outline consists of six elements: the short-term statistics a country wishes to compile; the frequency of the data items, in nominal and volume measures; the requirements for compliance to the international statistical standards; the required data

sources for the proposed data items; the current data sources and compilation methods; and the actions required to mitigate the gaps identified in the assessment relative to the identified goals and needs.

6.37.   The decision on the type of short-term statistics to compile, representing the proposed goals, is mainly determined by the national and regional policy needs. In addition, the type of national accounts statistics to compile is determined by the requirements for assessing the scope and detail of the implementation of 2008 SNA and supporting statistics as adopted by the United Nations Statistical Commission in 2011.

6.38.   The data sets for assessing the scope and detail of the national accounts comprise a minimum required data set (MRDS), a recommended set and a desired set. The MRDS includes quarterly accounts for the nominal and volume measure of GDP by industry or by expenditure components and the quarterly compilation of the integrated accounts until net lending for the total economy and the rest of the world.[61] The MRDS also includes the compilation of annual institutional sector accounts until net lending for the corporate, general government, households and non-profit institutions serving households sectors, while the quarterly compilation of these sectors is recommended. The annual compilation of the sectoral financial accounts and sectoral balance sheets and other changes in assets accounts is recommended, while the compilation of their quarterly accounts is desirable.

6.39.   The current data sources and compilation methods for short-term statistics can be obtained from the results of the self-assessment of the statistical production process for supporting the compilation of short-term statistics that was carried out through the self-assessment questionnaire.

6.40.   By mapping the statistical requirements with the outcome of the self-assessment, it is possible to identify the actions required for the implementation of the data template for short-term statistics. Examples of the types of topics that may need to be addressed include the modernization of the national regulatory and institutional framework by strengthening the functioning of the NSS; statistical regulation, management practices, personnel practices and information and communication technology; the upgrading of statistical infrastructure to accommodate issues, such as compliance with the 2008 SNA and other international statistical standards, classifications, registers and frames; and the upgrading or development of statistical operations, such as monthly price statistics; monthly and quarterly production and turnover surveys; economic activity surveys (structural business statistics and short-term business statistics); household income and expenditure surveys, informal sector surveys, employment surveys and administrative data.

6.41.   Table 6.4 provides two examples. The first is the data series household final consumption expenditure. To comply with the 2008 SNA, this item needs to take account of issues, such as the allocation of FISIM; the estimation of imputed rental; goods that are produced by households for own final consumption and the classification of the data items according to COICOP. The required source information for the estimation of final household consumption includes household income and expenditure surveys, surveys of retail trade turnover by type of expenditure items; housing stock; and price indices by type of expenditure items. The second example is the index of industrial production. The standard for compiling this data item is reflected in the *International Recommendations for the Index of Industrial Production, 2010*;[62] and the underlying data are obtained through economic activity surveys and producer price index surveys.

[60] Quarterly accounts for the nominal and volume measure of GDP by industry and by expenditure and the quarterly compilation of the integrated accounts are included in set 1 of the data template for short-term statistics.

[61] See https://unstats.un.org /unsd/statcom/doc10 /BG-IndustrialStats.pdf.

Table 6.4
Consolidation of statistical requirements, assessment and actions

Data item	Frequency Monthly, Quarterly, Annual	Statistical standards	Required sources	Principal data sources and compilation methods	Actions required to mitigate the gaps identified in the assessment relative to identified goals and needs.
(a)	(b)	(c)	(d)	(e)	(f)
National accounts		**2008 SNA**			
For example: Household final consumption expenditure	A/Q	FISIM allocated to users; imputed rents; goods that are produced by households for own final consumption COICOP.	Household income and expenditure surveys, retail trade turnover by type of expenditure items, housing stock, price indices, volume series by type of expenditure items	From the self-assessment questionnaire for the data template for short-term statistics	For example: Introduce a monthly retail trade turnover survey
Production and turnover					
For example: Index of industrial production	M/Q	International Recommendations for the Index of Industrial Production, 2010	Economic activity surveys by industry, producer price index surveys	From the self-assessment questionnaire for the data template for short-term statistics	For example: Introduce a monthly industrial production survey to compliment the quarterly economic activity survey

G.   Action plan

6.42.   Following the identification of the required actions for the development of a programme for the data template, an action plan needs to be prepared. The action plan indicates the interventions to be carried out with a timetable to mitigate data gaps. The action plan also provides an information structure for monitoring and evaluating the implementation of the data template. The action plan therefore, needs to be specific, measurable, relevant and be executed in a particular time scale. Each of the required actions needs to include key features and key deliverables, for example, the dissemination of quarterly GDP within one quarter after the end of the quarter.

Annex 1
Self-assessment questionnaire for the data template for short-term statistics

A. Dissemination and communication, metadata and data reporting, and data sources

Country: ☐   Name of institution: ☐

Contact person: ☐   Email: ☐

Mailing address: ☐

Date: ☐

Set 1: National Accounts

	Availability	Name of compiling agency
Flash GDP estimate	☐	☐
GDP full release	☐	☐
by expenditure	☐	☐
by production	☐	☐
by income	☐	☐
Sector Accounts	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics   ☐

Statistics are released punctually, in accordance with pre-announced release calendar   ☐

Statistics are made available to users simultaneously   ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timelines		Latest reference (base) year	Estimates seasonally adjusted	Revision cycle from provisional to final
	Q	A	Q	A			
Flash GDP estimate	☐	☐	☐	☐	☐	☐	☐ yrs
GDP full release	☐	☐	☐	☐	☐	☐	☐ yrs
by expenditure	☐	☐	☐	☐	☐	☐	☐ yrs
by production	☐	☐	☐	☐	☐	☐	☐ yrs
by income	☐	☐	☐	☐	☐	☐	☐ yrs
Sector Accounts	☐	☐	☐	☐	☐	☐	☐ yrs

International standards/good practices

SNA version	Activity classification version used	Product classification used	Expenditure classification used
☐ 1968	☐ ISIC2	☐ CPC1	☐ COICOP
☐ 1993	☐ ISIC3	☐ CPC1.1	☐ COFOG
☐ 2008	☐ ISIC3.1	☐ CPC2	☐ COPNI
	☐ ISIC4	☐ CPC2.1	
	☐ Other (national classification)	☐ Other (national classification)	☐ Other (national classification)

Handbook and compilation manuals used: *Handbook on Quarterly National Accounts* ☐ *Handbook on Rapid Estimates* ☐ *Manual on Quarterly Non-Financial Accounts for General Government* *Manual on Sources and Methods for Quarterly Financial Accounts for General Government* ☐ *Quarterly Non-Financial Sector Accounts—European Inventory of Sources and Methods* ☐ Others ▭

III. Data sources

	Estimates based on		Periodicity of survey		Latest data (year)	Intermediate input estimate based on		Periodicity of input survey	
	Sample survey	Administrative data	Q	M		Sample survey	Rates/ratios	Q	M
Flash GDP estimate	☐	☐	☐	☐	▭	☐	☐	☐	☐
GDP full release	☐	☐	☐	☐	▭	☐	☐	☐	☐
by expenditure	☐	☐	☐	☐	▭	☐	☐	☐	☐
by production	☐	☐	☐	☐	▭	☐	☐	☐	☐
by income	☐	☐	☐	☐	▭	☐	☐	☐	☐
Quarterly Sector Accounts	☐	☐	☐	☐	▭	☐	☐	☐	☐

Set 2: Production and Turnover

	Availability	Name of compiling agency
Index of industrial production index by major division (mining, manufacturing, electricity, water, etc.)	☐	▭
Production index for construction	☐	▭
Turnover index for retail trade	☐	▭
Turnover index for industry by major division	☐	▭
Turnover index for other services by major division (excluding financial services and non-commercial services)	☐	▭
New orders index for industry by major ISIC division (for those that work on order)	☐	▭
New orders index for construction or building permits	☐	▭
Commodity production (as relevant at country level data on commodity productions and other indicators of economic activity)		
Agricultural products	☐	▭
Minerals	☐	▭
New car registrations/sales	☐	▭
New commercial vehicle registrations/sales	☐	▭
Tourist arrivals	☐	▭

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics	☐
Statistics are released punctually, in accordance with pre-announced release calendar	☐
Statistics are made available to users simultaneously	☐
In addition to routinely disseminated statistics, other general statistics are made available to users upon request:	☐

II. Metadata and data reporting

	Periodicity		Timeliness		Latest refer-ence (base) year	Estimates season-ally adjusted	Revision cycle from provi-sional to final
	Q	M	Q	M			
Index of industrial production by major division (mining, manufacturing, electricity, water, etc.)	☐	☐	☐	☐	☐	☐	☐ yrs
Production index for construction	☐	☐	☐	☐	☐	☐	☐ yrs
Turnover index for retail trade	☐	☐	☐	☐	☐	☐	☐ yrs
Turnover index for industry by major ISIC division	☐	☐	☐	☐	☐	☐	☐ yrs
Turnover index for other services by major ISIC division (excluding financial services and non-commercial services)	☐	☐	☐	☐	☐	☐	☐ yrs
New orders index for industry by major ISIC division (for those that work on order)	☐	☐	☐	☐	☐	☐	☐ yrs
New orders index for construction or building permits	☐	☐	☐	☐	☐	☐	☐ yrs
Commodity production (as relevant and other indicators of economic activity)	☐	☐	☐	☐	☐	☐	☐ yrs
Agricultural products	☐	☐	☐	☐		☐	☐ yrs
Minerals	☐	☐	☐	☐		☐	☐ yrs
New car registrations/sales	☐	☐	☐	☐		☐	☐ yrs
New commercial vehicle registrations/sales	☐	☐	☐	☐		☐	☐ yrs
Tourist arrivals	☐	☐	☐	☐		☐	☐ yrs

International standards/good practices

Activity classification version   **Product classification used**

☐ ISIC2   ☐ ISIC4   ☐ CPC1   Other (national classification) ☐

☐ ISIC3   ☐ Other (national classification)   ☐ CPC1.1

☐ ISIC3.1   ☐ CPC2

☐ CPC2.1

Handbooks and compilation guidance used: ☐ *International Recommendations for Industrial Statistics* ☐ *Industrial Statistics: Guidelines and Methodology* ☐ *International Recommendations for the Index of Industrial Production* ☐ *International Recommendations for Distributive Trade Statistics Guidelines for Compiling the Monthly Index of Production in Construction* ☐ *Methodology of Short-Term Statistics—Interpretation and Guidelines* ☐ Other ☐

III. Data sources

	Estimates based on		Periodicity of survey		Latest data (year)
	Sample survey	Administrative data	Q	M	
Index of industrial production by major division (mining, manufacturing, electricity, water, etc.)	☐	☐	☐	☐	☐
Production index for construction	☐	☐	☐	☐	☐
Turnover index for retail trade	☐	☐	☐	☐	☐
Turnover index for industry by major ISIC division	☐	☐	☐	☐	☐
Turnover index for other services by major ISIC division (excluding financial services and non-commercial services)	☐	☐	☐	☐	☐
New orders index for industry by major ISIC division (for those that work on order)	☐	☐	☐	☐	☐
New orders index for construction or building permits	☐	☐	☐	☐	☐
Commodity production (as relevant and other indicators of economic activity)	☐	☐	☐	☐	☐
• Agricultural products	☐	☐	☐	☐	☐
• Minerals	☐	☐	☐	☐	☐

• New car registrations/sales	☐	☐	☐	☐	▭
• New commercial vehicle registrations/sales	☐	☐	☐	☐	▭
• Tourist arrivals	☐	☐	☐	☐	▭

Set 3: Prices

	Availability	Name of compiling agency
Consumer price index	☐	▭
Producer price index	☐	▭
Import price index	☐	▭
Export price index	☐	▭

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Latest reference (base) year	Estimates seasonally	Revision cycle from provisional to final
	Q	M	Q	M			
Consumer price index	☐	☐	☐	☐	▭	☐	▭ yrs
Producer price index	☐	☐	☐	☐	▭	☐	▭ yrs
Import price index	☐	☐	☐	☐	▭	☐	▭ yrs
Export price index	☐	☐	☐	☐	▭	☐	▭ yrs

International standards/good practices

Price indices classification	Activity classification version	Product classification used	Expenditure classification used
☐ SITC Rev. 4	☐ ISIC2	☐ CPC1	☐ COICOP
☐ HS Rev. 4	☐ ISIC3	☐ CPC1.1	
☐ BEC Rev. 3	☐ ISIC3.1	☐ CPC2	
☐ EBOPS	☐ ISIC4	☐ CPC2.1	
☐ BEC Rev. 3	☐ Other (national classification)	☐ Other (national classification)	☐ Other (national classification)
☐ Other (national classification)			

Handbooks and compilation guides used: *Consumer Price Index Manual: Theory and Practice* ☐ *Producer Price Index Manual: Theory and Practice* ☐ *Export and Imports Price Index Manual: Theory and Practice* ☐ *A Practical Guide to Producing Consumer Price Indices* ☐ *Handbook on Industrial Producer Price Indices* ☐ *Methodological Guide for Developing Producer Price Indices for Services* ☐ *European Price Statistics—An Overview* ☐ Others ▭

III. Data sources

	Estimates based on		Periodicity of survey		Latest data (year)
	Sample survey	Administrative data	Q	M	
Consumer price index	☐	☐	☐	☐	▭
Producer price index	☐	☐	☐	☐	▭
Import price index	☐	☐	☐	☐	▭
Export price index	☐	☐	☐	☐	▭

Set 4: Labour Market

	Availability	Name of compiling agency
Unemployment	☐	☐
Unemployment rate	☐	☐
Employment total and by economic activity	☐	☐
Hourly wage rate	☐	☐
Hours of work	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Estimates seasonally	Revision cycle from provisional to final
	Q	M	Q	M		
Unemployment	☐	☐	☐	☐	☐	☐ yrs
Unemployment rate	☐	☐	☐	☐	☐	☐ yrs
Employment total and by economic activity	☐	☐	☐	☐	☐	☐ yrs
Hourly wage rate	☐	☐	☐	☐	☐	☐ yrs
Hours of work	☐	☐	☐	☐	☐	☐ yrs

International standards/good practices

☐ International Conference of Labour Statisticians

☐ Other standards, specify: ☐

Handbooks and Compilation Guidance Used: *Survey of economically active population, employment and underemployment: An ILO manual on concepts and methods* ☐
Current International Recommendations on Labour Statistics ☐ *The European Union Labour Force Survey—Methods and Definitions—2001* ☐
Others ☐

III. Data sources

	Estimates based on		Periodicity of survey		Latest data (year)
	Sample survey	Administra-tive data	Q	M	
Unemployment rate	☐	☐	☐	☐	☐
Employment total and by economic activity	☐	☐	☐	☐	☐
Hourly wage rate	☐	☐	☐	☐	☐
Hours of work	☐	☐	☐	☐	☐

Set 5: External Sector

	Availability	Name of compiling agency
Exports and imports of goods	☐	☐
Current account balance	☐	☐
International investment position	☐	☐
Official reserve assets	☐	☐
External debt (by sector, maturity and currency)	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Revision cycle from provisional to final
	Q	M	Q	M	
Exports and imports of goods	☐	☐	☐	☐	☐ yrs
Current account balance	☐	☐	☐	☐	☐ yrs
International investment position	☐	☐	☐	☐	☐ yrs
Official reserve assets	☐	☐	☐	☐	☐ yrs
External debt (by sector, maturity and currency)	☐	☐	☐	☐	☐ yrs

International standards/good practices

☐ BPM 6 ☐ BPM 5 ☐ International Merchandise Trade Statistics (IMTS)
 Other standards, specify: _____

Handbook or Compilation Guidance Used: *Manual on Statistics of International Trade in Services* ☐ *International Merchandise Trade Statistics: Compiler's Manual, Revision 1* ☐ *International Merchandise Trade Statistics: Supplement to the Compilers Manual* ☐ *Balance of Payments and International Investment Position Compilation Manual* ☐ *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* ☐ *External Debt Statistics: Guide for Compilers and Users, 2013 Edition*
Others ☐

III. Data sources

Data Indicators	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Exports and imports of goods	☐	☐	☐	☐	☐
Current account balance	☐	☐	☐	☐	☐
International investment position	☐	☐	☐	☐	☐
Official reserve assets	☐	☐	☐	☐	☐
External debt (by sector, maturity and currency)	☐	☐	☐	☐	☐

Set 6: Financial Corporations Sector

	Availability	Name of compiling agency
Central Bank net foreign assets	☐	☐
Central Bank domestic lending	☐	☐
Central Bank reserve money	☐	☐
Depository corporations net foreign assets	☐	☐
Depository corporations domestic lending	☐	☐
Depository corporations broad money liabilities	☐	☐
Other financial corporations balance sheet, assets and liabilities by sector	☐	☐
Financial corporate profits	☐	☐
Financial corporate debt	☐	☐
Others as relevant: non-performing loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Revision cycle from provisional to final
	Q	M	Q	M	
Central Bank net foreign assets	☐	☐	☐	☐	☐ yrs
Central Bank domestic lending	☐	☐	☐	☐	☐ yrs
Central Bank reserve money	☐	☐	☐	☐	☐ yrs
Depository corporations net foreign assets	☐	☐	☐	☐	☐ yrs
Depository corporations domestic lending	☐	☐	☐	☐	☐ yrs
Depository corporations broad money liabilities	☐	☐	☐	☐	☐ yrs
Other financial corporations balance sheet, assets and liabilities by sector	☐	☐	☐	☐	☐ yrs
Financial corporate profits	☐	☐	☐	☐	☐ yrs
Financial corporate debt	☐	☐	☐	☐	☐ yrs
Others as relevant: non-performing loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	☐	☐	☐	☐	☐ yrs

International standards/good practices

Standards for indicators used

☐ *Monetary and Financial Statistics Manual* ☐ SNA

☐ Other standards, specify: ☐

Handbook and Compilation Guidance: *Monetary and Financial Statistics: Compilation Guidance* ☐ *Financial Production, Flows and Stocks in the System of National Accounts* ☐ *Handbook on Securities Statistics* ☐ *Public Sector Debt Statistics: Guide for Compilers and Users* ☐ *Financial Sector Assessment—A Handbook* ☐ *Financial Soundness Indicators: Compilation Guide,* Others ☐

III. Data sources

	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Central Bank net foreign assets	☐	☐	☐	☐	☐
Central Bank domestic lending	☐	☐	☐	☐	☐
Central Bank reserve money	☐	☐	☐	☐	☐
Depository corporations net foreign assets	☐	☐	☐	☐	☐
Depository corporations domestic lending	☐	☐	☐	☐	☐
Depository corporations broad money liabilities	☐	☐	☐	☐	☐
Other financial corporations balance sheet, assets and liabilities by sector	☐	☐	☐	☐	☐
Financial corporate profits	☐	☐	☐	☐	☐
Financial corporate debt	☐	☐	☐	☐	☐
Others as relevant: non-performing loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	☐	☐	☐	☐	☐

Set 7: General Government Sector

	Availability	Name of compiling agency
Revenue	☐	☐
Expense	☐	☐
Net operating balance (= Revenue – Expense)	☐	☐
Net acquisition of non-financial assets	☐	☐
Expenditure	☐	☐
Net lending/net borrowing (= Revenue – Expenditure)	☐	☐
Gross debt	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Revision cycle from provisional to final
	Q	M	Q	M	
Revenue	☐	☐	☐	☐	☐ yrs
Expense	☐	☐	☐	☐	☐ yrs
Net operating balance (= Revenue – Expense)	☐	☐	☐	☐	☐ yrs
Net acquisition of non-financial assets	☐	☐	☐	☐	☐ yrs
Expenditure	☐	☐	☐	☐	☐ yrs
Net lending/net borrowing (= Revenue - Expenditure)	☐	☐	☐	☐	☐ yrs
Gross debt	☐	☐	☐	☐	☐ yrs

International standards/good practices

Standards used

☐ GFSM 2014 ☐ GFSM 2001

☐ Other standards, specify: _____

Handbook and Compilation Guidance: *Quarterly Government Finance Statistics Guide for Compilers and Users* ☐ *Government Finance Statistics: Compilation Guide for Developing Countries* ☐ *GFSM 2001 Companion Material: Non-financial Public Sector Statistics - Consolidation Manual on Quarterly Non-Financial Accounts for General Government* ☐ *Manual on Sources and Methods for Quarterly Financial Accounts for General Government Manual on Compilation of Taxes and Social Payments on a Quarterly Basis* ☐ *Others* ☐

III. Data sources

	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Revenue	☐	☐	☐	☐	☐
Expense	☐	☐	☐	☐	☐
Net operating balance (= Revenue – Expense)	☐	☐	☐	☐	☐
Net acquisition of non-financial assets	☐	☐	☐	☐	☐
Expenditure	☐	☐	☐	☐	☐
Net lending/net borrowing (= Revenue - Expenditure)	☐	☐	☐	☐	☐
Gross debt	☐	☐	☐	☐	☐

Set 8: Household Sector

	Availability	Name of compiling agency
Household disposable income	☐	[_____]
Household saving	☐	[_____]
Household debt	☐	[_____]
Other as relevant: debt service and principal payments, and defaults on home mortgages, credit card debt and car loans etc.	☐	[_____]

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Adjusted	Revision cycle from provisional to final
	Q	M	Q	M		
Household disposable income	☐	☐	☐	☐	☐	[_____] yrs
Household saving	☐	☐	☐	☐	☐	[_____] yrs
Household debt	☐	☐	☐	☐	☐	[_____] yrs
Other as relevant: debt service and principal payments, and defaults on home mortgages, credit card debt and car loans etc.	☐	☐	☐	☐	☐	[_____] yrs

International standards/good practices

Standards used

☐ ICLS Resolution Concerning Household Income and Expenditure Statistics ☐ *The Canberra Group Handbook on Household Income Statistics, 2nd Edition* ☐ SNA ☐ Other standards, specify: [_____]

Handbook and Compilation Guidance: *Framework for Statistics on the Distribution of Household Income, Consumption and Wealth* ☐ *Guidelines for Micro Statistics on Household Wealth* ☐ *Household Budget Survey in the EU: Methodology and Recommendations for Harmonization* ☐ *Household Surveys in Developing Countries and Transition Countries, Implementation and Analysis* ☐ *Survey Data on Household Finance and Consumption—Research Summary and Policy Use*
Others [_____]

III. Data sources

	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Household disposable income	☐	☐	☐	☐	[_____]
Household saving	☐	☐	☐	☐	[_____]
Household debt	☐	☐	☐	☐	[_____]
Other as relevant: debt service and principal payments, and defaults on home mortgages, credit card debt and car loans, etc.	☐	☐	☐	☐	[_____]

Set 9: Non-financial corporations sector

	Availability	Name of compiling agency
Non-financial corporate profits	☐	[_____]
Non-financial corporate debt	☐	[_____]
Other as relevant: net foreign exchange exposure to equity, and the umber of applications for protection from creditors, etc.	☐	[_____]

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Regional cycle from provisional to final
	Q	M	Q	M	
Non-financial corporate profits	☐	☐	☐	☐	☐
Non-financial corporate debt	☐	☐	☐	☐	☐
Other as relevant	☐	☐	☐	☐	☐

International standards/good practices

Standards used

☐ SNA ☐ Other standards, specify: ☐

Handbook and compilation guidance: *Financial Soundness Indicators: Compilation Guide* ☐ Others ☐

III. Data sources

	Estimates based on		Perodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Non-financial corporate profits	☐	☐	☐	☐	☐
Non-financial corporate debt	☐	☐	☐	☐	☐
Other as relevant: net foreign exchange exposure to equity and the number of applications for protection from creditors, etc.	☐	☐	☐	☐	☐

Set 10: Financial market

	Availability	Name of compiling agency
Interest rates, as relevant short and long term money and bond market rates	☐	☐
Exchange rates, as relevant spot and forward markets	☐	☐
Nominal and real effective exchange rate	☐	☐
Stock market indicators	☐	☐
Others as relevant: spreads between lending and deposit rates, highest/lowest interbank rate; etc.	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness	
	Q	M	Q	M
Interest rates, as relevant short- and long-term money and bond market rates	☐	☐	☐	☐
Exchange rates, as relevant spot and forward markets	☐	☐	☐	☐
Nominal and real effective exchange rate	☐	☐	☐	☐
Stock market indicators	☐	☐	☐	☐
Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	☐	☐	☐	☐

III. Data sources

	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Interest rates, as relevant short- and long-term money and bond market rates	☐	☐	☐	☐	☐
Exchange rates, as relevant spot and forward markets	☐	☐	☐	☐	☐
Nominal and real effective exchange rate	☐	☐	☐	☐	☐
Stock market indicators	☐	☐	☐	☐	☐
Others as relevant: spreads between lending and deposit rates, highest/lowest interbank rate; etc.	☐	☐	☐	☐	☐

Set 11: Real estate market

	Availability	Name of compiling agency
Residential property price index	☐	☐
New house sales	☐	☐
Existing house sales	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Estimates seasonally adjusted	Revision cycle from provisional to final
	Q	M	Q	M		
Residential property price index	☐	☐	☐	☐	☐	☐ yrs
New house sales	☐	☐	☐	☐	☐	☐ yrs
Existing house sales	☐	☐	☐	☐	☐	☐ yrs

International standards/good practices

Standards used ☐ *Handbook on Residential Property Prices Indices*

Other standard, specify: ☐

Handbook and compilation guidance: *Detailed Technical Manual on Owner-Occupied Housing for Harmonized Index of Consumer Prices* ☐ *Manual on Owner-Occupied Housing Price Indices—House Price indices* ☐ *Real Estate Indicators and Financial Stability* ☐ Other guidance, specify ☐

III. Data sources

Data Indicators	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Residential property price index	☐	☐	☐	☐	☐
New house sales	☐	☐	☐	☐	☐
Existing house sales	☐	☐	☐	☐	☐

Set 12: Economic sentiment

	Availability	Name of compiling agency
Consumer confidence	☐	☐
Business confidence	☐	☐
Composite Business Cycle Indicators	☐	☐
• Leading Indicator	☐	☐
• Coincident Indicator	☐	☐
• Lagging Indicator	☐	☐

I. Dissemination and communication

Statistics are disseminated through: Paper publication ☐ Electronic format ☐ the Internet ☐ Centralized data hub ☐

Advance release calendar exists for dissemination of statistics ☐

Statistics are released punctually, in accordance with pre-announced release calendar ☐

Statistics are made available to users simultaneously ☐

In addition to routinely disseminated statistics, other general statistics are made available to users upon request: ☐

II. Metadata and data reporting

	Periodicity		Timeliness		Latest reference (base) year	Estimates season-ally adjusted	Revision cycle from provisional to final
	Q	M	Q	M			
Consumer confidence	☐	☐	☐	☐	☐	☐	☐ yrs
Business confidence	☐	☐	☐	☐	☐	☐	☐ yrs
Composite Business Cycle Indicators	☐	☐	☐	☐	☐	☐	☐ yrs
• Leading Indicator	☐	☐	☐	☐	☐	☐	☐ yrs
• Coincident Indicator	☐	☐	☐	☐	☐	☐	☐ yrs
• Lagging Indicator	☐	☐	☐	☐	☐	☐	☐ yrs

Handbook and compilation guidance: *Handbook on Business Cycle Composite Indicators* ☐ *Handbook on Economic Tendency Surveys* ☐ *Business Tendency Surveys* ☐ *OECD System of Composite Leading Indicators Handbook on Constructing Composite Indicator—Methodology and User Guide* ☐ Others ☐

III. Data sources

Data Indicators	Estimates based on		Periodicity of source data		Latest data (year)
	Sample survey	Administrative data	Q	M	
Consumer confidence	☐	☐	☐	☐	☐
Business confidence	☐	☐	☐	☐	☐
Composite Business Cycle Indicators	☐	☐	☐	☐	☐
• Leading Indicator	☐	☐	☐	☐	☐
• Coincident Indicator	☐	☐	☐	☐	☐
• Lagging Indicator	☐	☐	☐	☐	☐

B. Technical cooperation and capacity-building

I. Technical cooperation and capacity-building	External technical assistance received in the past?	When? (latest year)	External technical assistance provider agency/ country	Priority of external technical assistance		External technical assistance required?
				Short term	Long term	
Set 1: National Accounts	☐	☐	☐	☐	☐	☐
Set 2: Production and Turnover	☐	☐	☐	☐	☐	☐
Set 3: Prices	☐	☐	☐	☐	☐	☐
Set 4: Labour Market	☐	☐	☐	☐	☐	☐
Set 5: External Sector	☐	☐	☐	☐	☐	☐
Set 6: Financial Corporations Sector	☐	☐	☐	☐	☐	☐
Set 7: General Government Sector	☐	☐	☐	☐	☐	☐
Set 8: Household Sector	☐	☐	☐	☐	☐	☐
Set 9: Non-financial corporations sector	☐	☐	☐	☐	☐	☐
Set 10: Financial market	☐	☐	☐	☐	☐	☐
Set 11: Real estate market	☐	☐	☐	☐	☐	☐
Set 12: Economic Sentiment	☐	☐	☐	☐	☐	☐

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The data template and metadata for short-term statistics comprise internationally accepted short-term statistics and accompanying metadata for the purpose of macroeconomic surveillance, early warning of economic and financial vulnerabilities and detection of turning points in business cycles. These statistics were selected after a global consultation, with the recommended periodicity and timeliness based on an assessment of the availability of such statistics across national statistical systems. A national implementation programme focusing on enhancing coordination across the national statistical system and establishing national central data hubs to improve the collation, dissemination and use of these statistics should be developed.

The *Handbook on Data Template and Metadata for Short-term Statistics* aims to help compilers and users of short-term statistics by elaborating the methodological descriptions and the uses of short-term statistics. It explains the statistical and analytical properties of these statistics, why they are relevant in explaining economic activity and how they relate to an integrated set of quarterly national accounts data.

The preparation of the *Handbook on Data Template and Metadata for Short-term Statistics* was initiated by the United Nations Statistical Commission as part of the international programme of work on short-term statistics which was established in response to the global economic and financial crisis. The programme comprised four themes: cyclical composite indicators, economic tendency surveys, rapid estimates, and data template and analytical indicators. The *Handbook on Data Template and Metadata for Short-term Statistics* is one of the four handbooks prepared under the international programme on short-term statistics.