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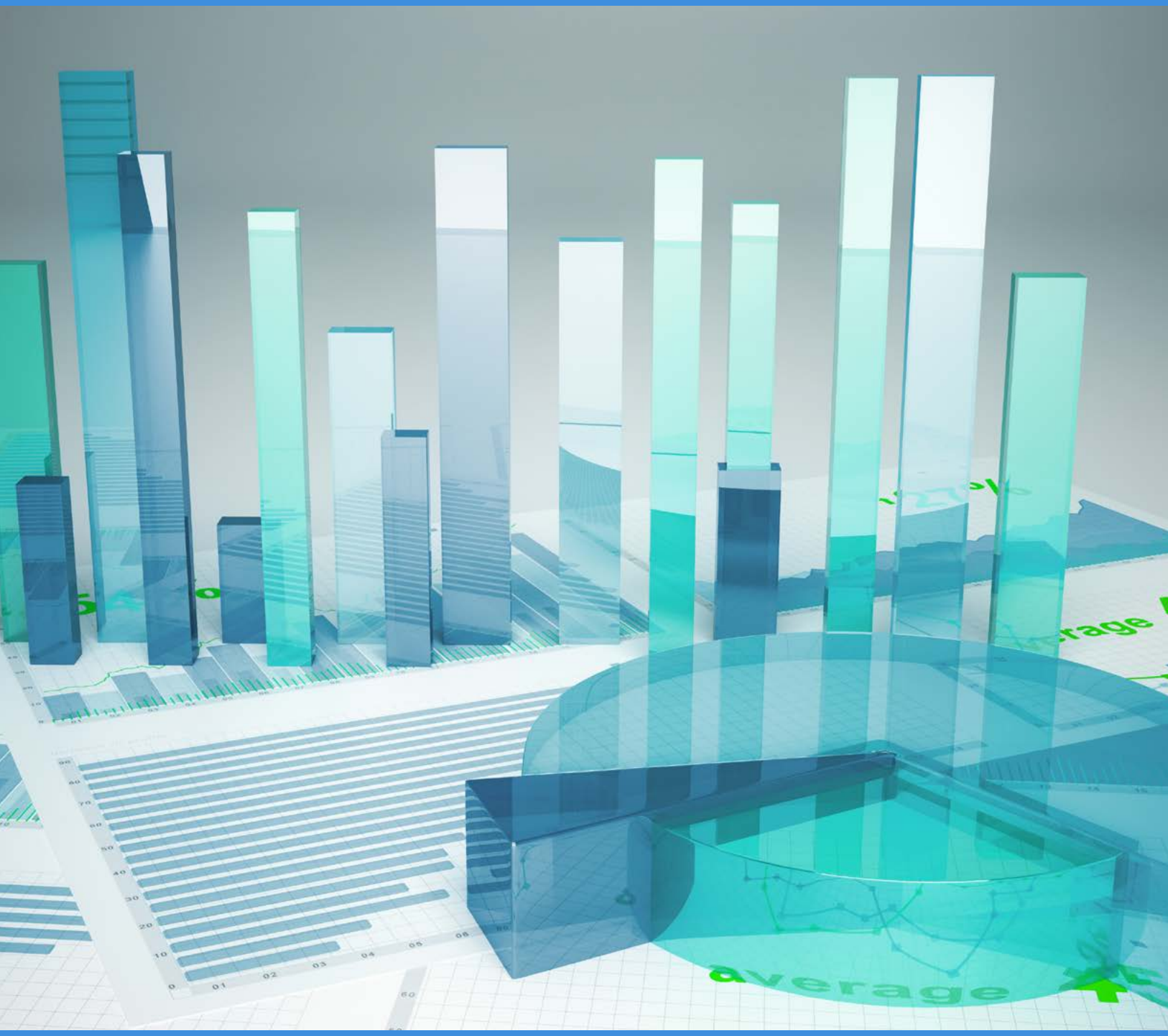

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REGIONAL GUIDELINES ON SHORT-TERM STATISTICS BASED ON SELECTED ESCWA MEMBER COUNTRIES

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CONTENTS

Page

Executive summary viii
Abbreviations xii

SECTION A. BACKGROUND 1

SECTION B. REGIONAL GUIDELINES OBJECTIVES 2

1. Regional Guidelines outline 2
2. Development methodology 3

SECTION C. SCOPE OF SHORT-TERM STATISTICS COVERED IN REGIONAL GUIDELINES 5

SECTION D. WHAT ARE KEY SHORT-TERM STATISTICS 6

1. What are key economic indicators 6
2. Importance of key macroeconomic indicators 7

PART I REVIEW OF SHORT-TERM STATISTICS IN PILOT COUNTRIES

SECTION E. AVAILABILITY OF SHORT-TERM STATISTICS IN THE PILOT COUNTRIES 12

SECTION F. FREQUENCY OF STSs V. RECOMMENDED FREQUENCY 17

SECTION G. TIMELINESS OF STSs V. RECOMMENDED TIMELINESS 18

SECTION H.RELEVANT STSs INTERNATIONAL STANDARD V. STANDARD ACTUALLY USED BY PILOT COUNTRY 19

SECTION I. VALIDATION METHODS USED BY PILOT COUNTRIES 20

1. Validation techniques used 20
2. Use of a quality assessment framework 25

SECTION J. AVAILABILITY OF STSs METADATA BY PILOT COUNTRIES 26

SECTION K. MAIN DATA QUALITY ISSUES IDENTIFIED FOR SHORT-TERM STATISTICS IN PILOT COUNTRIES 27

1. Egypt 27
2. Tunisia 30
3. Palestine 32
4. Qatar 34
5. Oman 36
6. Jordan 37
7. Lebanon 38

CONTENTS (*continued*)

Page

PART II PRIORITY SHORT-TERM STATISTICS IN PILOT COUNTRIES

SECTION L. IDENTIFICATION OF STS PRIORITIES IN PILOT COUNTRIES 44

SECTION M. DEFINITION OF PRIORITY SHORT-TERM STATISTICS 47

SECTION N. POLICY RELEVANCE OF THE PRIORITY STATISTICS AND THEIR STATISTICAL FRAMEWORK 50

SECTION O. DEVELOPMENT NEEDS FOR PRIORITY SHORT-TERM STATISTICS IDENTIFIED BY PILOT COUNTRIES 54

1. Global initiatives 54
2. Ideal data requirements for the compilation of quarterly national accounts 55
3. Development needs identified by pilot countries for priority short-term statistics 57

SECTION P. RELATIONSHIP BETWEEN PRIORITY SHORT-TERM STATISTICS 69

SECTION Q. KEY RECOMMENDATIONS FOR THE DEVELOPMENT AND IMPROVEMENT OF THE PRIORITY SHORT-TERM STATISTICS 71

1. Statistical infrastructure recommendations 71

A. Adoption of a quality assessment framework 71
B. Development of a metadata repositories 74
C. Improvement of key IT infrastructures 76

2. Key statistical recommendations 76

A. Key concepts and processes 78
B. Production index for industry by major division 79
C. Production index for construction 81
D. Turnover index of industry by major division 83
E. Turnover index for retail trade by major division 84
F. Producer price index 86
G. Import and export price indices 87
H. Residential property price index 88
I. Employment by activity 91
J. Household debt 95

3. Institutional recommendations – resource implications 97

CONTENTS (*continued*)

Page

PART III EARLY WARNING SYSTEMS

SECTION R. INTERNATIONAL INITIATIVES ON THE DEVELOPMENT OF EARLY WARNING SYSTEMS 102

1. Data Template and Metadata for Short-term Statistics 103
2. Handbook on Rapid Estimates 103
3. Handbook on Economic Tendency Surveys 104
4. Handbook on Cyclical Composite Indicators 104

SECTION S. FLASH ESTIMATES 105

1. What are flash estimates 105
2. Flash estimates concepts 105
3. Background 107
4. Relevance of flash estimates for policy formulation 108
5. UNSD recommendations/options with regard to flash estimate compilation techniques 108

A. Rapid Estimates based on factor models 109

B. Rapid estimates based on regression models 109

C. Rapid Estimates Based on Multivariate time series models 109

D. Rapid estimates models based on data available at different frequencies 110

E. Rapid Estimates based on available survey data 110

6. Flash estimates compiled by countries in other regions 110

SECTION T. ECONOMIC TENDENCY SURVEYS 112

1. What are economic tendency surveys 112
2. Relevance of economic confidence indicators for policy formulation 114
3. Key elements of UNSD recommendations for economic tendency surveys 115

A. Consumer tendency surveys (CTS) 115

B. Business tendency surveys (BTS) 116

4. Economic tendency surveys conducted by the pilot countries and by countries in other regions 117

A. Economic tendency surveys conducted by pilot countries 117

B. Harmonized European Confidence Indicators 120

SECTION U. COMPOSITE BUSINESS CYCLE INDICATORS 121

1. What are composite business cycle indicators 121
2. Relevance of composite business cycle indicators for policy formulation 122
3. Key elements of international recommendations for composite business cycle indicators 122
4. Composite business cycle indicators compiled by countries in other regions 124

SECTION V. REFERENCES 127

CONTENTS (*continued*)

Page

ANNEXES

Annex 1. Template used for country assessment reports for reviewing short-term statistics in pilot countries 139
Annex 2. IMF Data Quality Assessment Framework Metadata Items 151
Annex 3. Eurostat's Single Integrated Metadata Structure (SIMS) 153
Annex 4. Case study on composite business cycle indicator: Tunisia 156
Annex 5. Availability of short-term statistics identified by pilot countries 161
Annex 6. Capacity development needs and other issues identified by pilot countries for priority short-term statistics 187
Annex 7. Data Template for Short-term Statistics 198
Annex 8. Recommended frequency of short-term statistics v. actual frequency in pilot countries 200
Annex 9. Recommended timeliness of short-term statistics v. actual timeliness in pilot countries 204
Annex 10. International statistical guidelines currently used by pilot countries for indicators currently disseminated 209
Annex 11. Provision of STSs metadata by pilot countries 218
Annex 12. Definition of short-term statistics outlined in ESCWA questionnaire 232
Annex 13. Policy relevance of short-term statistics outlined in ESCWA questionnaire and their statistical framework 240

LIST OF TABLES

Table 1. Pilot country subscription to either IMF SDDS or GDDS 11
Table 2. Overview of STSs currently disseminated in pilot countries 12
Table 3. Availability of short-term statistics – summary 12
Table 4. Potential STS availability gaps 15
Table 5. Recommended frequency of short-term statistics v. actual frequency in pilot countries 17
Table 6. Recommended timeliness of short-term statistics v. actual timeliness in pilot countries 18
Table 7. Examples of data Validation processes applied by pilot countries 20
Table 8. High priority short-term statistics identified by pilot countries 44
Table 9. Pilot countries who viewed priority STSs as a national priority 46
Table 10. Eurostat-OECD ideal set of QNA input series 56
Table 11. Institutional, infrastructure and statistical barriers identified by pilot countries for priority STSs 58
Table 12. Development issues/requirements for priority STSs identified by pilot countries 67
Table 13. Main input series used by UK ONS for the compilation of GDP estimates 70
Table 14. Examples of quality assessment frameworks implemented by NSOs and international organizations 72
Table 15. Timeliness of GDP flash estimates compiled by EU Member states, 2015 111
Table 16. Examples of composite business cycle indicators compiled by countries/international agencies in other regions 124

CONTENTS (*continued*)

Page

LIST OF DIAGRAM

Diagram 1. Components of early warning systems 3
Diagram 2. Relationship between the priority short-term statistics 69
Diagram 3. Metadata availability - Statistics Canada 75
Diagram 4. Metadata availability – Statistics Norway 76
Diagram 5. UNSD's Knowledge Base 77
Diagram 6. Components of specific early warning indicators 113

Executive summary

Short-term macroeconomic fluctuations increasingly impact on the socio-economic wellbeing of people in countries all over the world. Many developing economies, including Arab economies, fall far short in providing policy/decision makers with a complete set of reliable, and methodologically transparent, short-term statistics (STSs). They also lack experience and technical knowledge in producing and disseminating such indicators. This results in exclusion or severely limited participation of these economies in building early warning systems for economic and financial crises. Systems of short-term statistics and business cycle indicators are key components of early warning systems that are essential tools for policy planners and decision makers in both government and non-government organizations and agencies. They are essential for monitoring current and near future economic performance, and identifying turning points and growth at an early stage.

The primary objective of this publication, the *Regional Guidelines on Short-term Statistics Based on Selected ESCWA Member Countries* (hereunder referred to as the "*Regional Guidelines*") is to provide a guide that supports all countries in the Arab Region to produce and disseminate a small set of priority short-term statistics (STSs) identified by a group of seven pilot countries from the region. The pilot countries are: Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, and Tunisia.

The Regional Guidelines is one of the outputs of the project, Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth. Earlier outputs prepared by UN ESCWA include: the Study on Economic Statistics in the ESCWA Region: Sources and Methods; Handbook on Statistical Metadata for the ESCWA Region; and Study on Short-term Economic Indicators for the Arab Region. These three publications provide an Arab Region context for a number of global international initiatives and recommendations on the development of early warning systems.

The *Regional Guidelines* will achieve the primary objective stated above by:

- Outlining key conceptual issues relating to short-term statistics listed in the United Nations Statistics Division's (UNSD's) data template for short-term statistics;
- Discussing the overall uses of short-term statistics;
- Assessing the availability of and gaps in the dissemination of short-term statistics in the pilot countries;
- Reviewing some of the quality dimensions of indicators currently produced by pilot countries such as frequency and timeliness in the context of international recommendations;
- Discussing the main data constraints, obstacles and quality issues identified by pilot countries, and how they could be addressed;
- Identifying the main capacity development requirements of the pilot countries that would also be relevant for other countries in the Arab Region;
- Reviewing current international standards for early warning systems and examining current national practices used in other regions.

The *Regional Guidelines* is divided into three parts:

Part I: outlines the availability of a wide range of short-term statistics in the seven pilot countries. It then assesses this availability in the context of selected data quality dimensions and international statistical standards/guidelines and best practice by countries in the region or other regions around the world (such as Europe, and Asia and the Pacific).

Part II: discusses the subset of priority short-term statistics identified by the pilot countries and analyses key data quality issues for those indicators. This Part also provides recommendations and examples of best practice for the institutional issues identified by the pilot countries, and key data quality issues for each of the priority indicators.

Part III: discusses components of early warning systems that have been developed, or are in the process of being developed, by national statistical organizations (NSOs) around the globe, in particular, by Member countries of the European Union (EU). The STSs discussed in Parts I and II of the current publication are key elements or inputs for some of the components of such early warning systems.

The *Regional Guidelines* presents a number of recent international initiatives in the development of global standards and guidelines for both STSs and specific early warning indicators encompassing the:

- Formulation of a data template of analytical indicators;
- Handbook on the compilation of rapid estimates;
- Handbook on the development of tendency surveys;
- Handbook on the development of business cycle composite indicators.

These initiatives provide the context for work being undertaken by NSOs in the Arab Region in concert with the programme, *Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth.* Key features of these recent international initiatives are quoted at length in the Guidelines, though in order to minimize duplication of effort extensive links to other parts of recent international standards are also provided.

In order to maximize the relevance of the text/recommendations, etc., in the *Regional Guidelines* to countries in the Arab Region, detailed information on methodologies currently used by the seven pilot countries for the collection, compilation and dissemination of STSs and specific early warning indicators were assessed by the UN ESCWA Secretariat in 2015.

The assessment was carried out in a number of stages. The first stage included a questionnaire that UN ESCWA prepared and sent to the pilot country NSOs. The questionnaire included a "menu" of 67 macroeconomic indicators from which pilot countries in the Arab Region identified a subset of priority indicators. The questionnaire was divided into two parts. The first part focused on specific questions such as the name of national institutions responsible for compiling all 67 indicators, periodicity, length of time series available, computation, validation and estimation methodologies used, international standards and recommendations used, dissemination platforms used, availability of metadata and capacity building needs to produce or improve the quality of the STS. The second part of the questionnaire covered ten general questions which investigated improvements in producing STSs, capacity building priorities and needs, the economic indicators utilized in the compilation of early warning/composite indicators, and whether current IT capabilities were sufficient for processing.

The second stage of the assessment involved UN ESCWA Secretariat missions to each of the seven pilot countries during 2015 to organize meetings with experts from the national institutions involved in the production and dissemination of STSs. A national consultant hired by UN ESCWA attended those meetings and participated in the discussions. Follow up meetings were conducted by the national consultant as required to obtain further information not covered during UN ESCWA delegates meetings with those institutions. The output of this phase of the project was the preparation of a draft assessment report for each country by the national consultant outlining the main findings.

The country assessment reports, together with information from other sources such as international statistical guidelines and recommendations, etc., were then used as inputs to the preparation of a draft *Regional Guidelines* publication. These were supplemented as required with methodological information from the IMF SDDS/GDDS or national statistical agency websites. The priority short-term statistics and early warning systems were discussed by national experts from the pilot countries and international experts at an Expert Group Meeting (EGM) held in Jordan on 16-18 February 2016. The discussions further clarified national barriers to either the development of priority indicators not currently compiled or the improvement of existing indicators, together with preferred modes of capacity development. After inclusion of comments and

suggested revisions to the draft document from experts participating in the EGM and ESCWA, a final version of the Guidelines was completed in August 2016.

As shown in the following table, many of the 67 short-term statistics outlined in the UN ESCWA Secretariat review questionnaire are not currently compiled and disseminated by the seven pilot countries. This non-availability arises from a number or combination of factors such as low priority attached to the indicator by government and non-government users in the country, insufficient resources to develop and ensure on-going collection/maintenance of the indicator, or insufficient skill/knowledge base for the indicator within the country.

Overview of STSs currently disseminated in pilot countries

	STSs available		STSs not available*		Total STSs
Country	**No.**	**%**	**No.**	**%**	**No.**
Egypt	46	69	21	31	67
Tunisia	48	72	19	28	67
Qatar	32	48	35	52	67
Palestine	36	54	31	46	67
Jordan	40	60	27	40	67
Oman	20	30	47	70	67
Lebanon	27	40	40	60	67

* Includes a small number of indicators compiled but not disseminated by the statistical agency.

In addition to issues of frequency and timeliness, there are a wide range of other data quality issues with respect to those STSs that are currently compiled and disseminated by the pilot countries. Apart from the non-availability of the remaining indicators, the main data quality issues for existing indicators are:

- Absence of systematic and methodologically transparent estimates of the various components of the non-observed economy in estimates of GDP and its components;
- Non-availability of a timetable for the regular rebasing of a range of STS indices;
- Non-availability of seasonally adjusted STS indicators;
- Data quality issues with respect to some of the administrative data utilized by NSOs, obtained from other agencies within the national statistics system (NSS) which are used as inputs in the compilation of STSs.

There was sufficient overlap in the high priority short-term statistics identified by each of the seven pilot countries to identify fifteen relatively common high priority indicators for the region, namely:

- Flash estimates of GDP;
- GDP by production;
- GDP by expenditure;
- GDP by income;
- Producer price index;
- Import price index;
- Export price index;
- Production index for industry by major division;
- Turnover index for industry by major division;
- Turnover index for retail trade by major division;
- Production Index for Construction;
- Business and Consumer confidence indicators;
- Employment by activity;
- Household debt;
- Residential property price index.

The pilot countries identified a range of institutional, infrastructure or statistical/technical barriers that prevent these priority STSs from either being collected, compiled and disseminated completely, or being disseminated with the required frequency, timeliness or quality with respect to user needs or in compliance with the relevant international statistical standard or guideline. Overcoming these barriers required the:

- Provision of additional funding that would enable the initial development of new indicators and their subsequent ongoing implementation. Some of the countries also pointed to problems associated with high staff turnover and the departure of skilled staff to better paid jobs in other organizations;
- Provision of new IT infrastructure to improve processes for either data collection (e.g. through the use of hand held devices for price collection or the field collection of household survey data) or the processing of data once it has been transmitted to national statistical agency regional or head offices for further editing, compilation and subsequent dissemination;
- Identification of appropriate survey or administrative data sources that can be used as input series for the development of new STSs, or to improve the quality of indicators currently disseminated, for example, to improve either their frequency and timeliness with respect to the recommendations of international standards and guidelines.

In terms of the modes of delivering the required technical assistance/training there was a strong preference for:

- On-the-job training by experts which would best facilitate the development of staff skills through the practical resolution of issues/barriers relevant to the environment and needs of each country in the region, e.g. the use of adjustment/extrapolation techniques required to compensate for the use of less than optimal input series for the compilation of the various approaches of GDP;
- Small and informal regional workshops for discussing statistical and IT issues/barriers and their practical resolution in an environment where all of the countries attending would be expected to participate and contribute.

The *Regional Guidelines* provides recommendations on infrastructure and the main institutional issue raised in the national assessment reports and during discussions at the Expert Group Meeting held in Jordan in February 2016 namely, inadequate resources and funding. The Guidelines then outlines a small number of key recommendations for each priority short-term statistic. The recommendations are presented in the context of aspects of the relevant international guideline(s) that are of particular significance for each short-term statistic. Where appropriate, screen shots of, or links to, practices currently used by national agencies in the Arab Region or in other regions are provided. These are largely derived from UNSD's *Knowledge Base*. This database, which is still evolving, outlines or provides links to:

- current international recommendations/methodology;
- compilation guides/handbooks;
- country practices and related information.

The final Part of the *Regional Guidelines* discusses early warning systems that have been developed by statistical agencies around the globe. It commences with a discussion of international initiatives carried out over the last seven years to develop international guidelines and recommendations for the development of the components of early warning systems and how the indicators can be used by government and non-government policy makers. This is followed by a more detailed review of the major elements/issues in the compilation of early warning systems of each of these components, in particular, flash estimates, consumer and business confidence indicators, and business cycle indicators.

To date, experience in the compilation of these components of early warning systems by countries in the Arab Region has been restricted to the development and dissemination of consumer and business confidence indicators by a small number of countries. In this context, the *Regional Guidelines* presents the experiences of countries in other regions which highlight the potential benefits for ESCWA countries.

Abbreviations

AIB	Arab International Bank
BoP	Balance of Payments
BPM	Balance of Payments Manual
CAPMAS	Central Agency for Public Mobilization and Statistics [Egypt]
CAS	Central Administration of Statistics [Jordan]
CBJ	Central Bank of Jordan
CCSA	Committee for the Coordination of Statistical Activities
CLI	Composite leading indicator
COFOG	Classification of the Functions of Government
COICOP	Classification of Individual Consumption According to Purpose
CPC	Central Product Classification
CPI	Consumer price index
DQAF, IMF	Data Quality Assessment Framework, IMF
ECA, UN	Economic Commission for Africa, UN
ECE, UN	Economic Commission for Europe, UN
EGM	Expert Group Meeting
Eurostat	Statistical Office of the European Communities
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GDDS, IMF	General Data Dissemination Standard
GFSM	Government Finance Statistics Manual
HS	Harmonized Commodity Description and Coding System
ICLS	International Conference of Labour Statisticians
ICP	International Comparison Project
IDB	Islamic Development Bank
IIP	International investment position
ILO	International Labour Organization
IMF	International Monetary Fund
IPI	Industry production index
ISCC	International Standard Commodity Classification of all Goods and Services
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification
ISP	Index of Services Production
ISWGNA	Inter-Secretariat Working Group for National Accounts

Abbreviations (*continued*)

LFS	Labour force survey
MENA	Middle East and North Africa
METAC	Middle East Regional Technical Assistance Centre
MRDS	Minimum requirement data set
NPISH	Non-Profit Institutions Serving Households
NSDS	National Strategies for the Development of Statistics
NSO	National statistical office
NSS	National statistical system
OECD	Organization for Economic Cooperation and Development
OIC	Organization of the Islamic Conference
ONS	Office for National Statistics [United Kingdom]
Paris21	Partnership in Statistics for Development in the 21st Century
PCBS	Palestine Central Bureau of Statistics
PMA	Palestine Monetary Authority
PEEI	Principal European Economic Indicator
PGI	Principal Global Indicator
PPI	Producer price index
PPP	Purchasing power parity
PRSPs	Poverty Reduction Strategy Papers
QNA	Quarterly National Accounts
ROSC, IMF	Report on the Observation of Standards and Codes, IMF
SDDS, IMF	Special Data Dissemination Standard
SDMX	Statistical Data and Metadata eXchange
SIMS	Single Integrated Metadata Structure
SESRIC	Statistical, Economic and Social Research & Training Centre for Islamic Countries
SITC	Standard International Trade Classification
SNA	System of National Accounts
SPPI	Services producer price index
STS	Short-term statistic
UN	United Nations
UNECA	United Nations Economic Commission for Africa
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCWA	United Nations Economic and Social Commission for Western Asia
UNIDO	United Nations Industrial Development Organization
UNSC	United Nations Statistical Commission
UNSD	United Nations Statistics Division

SECTION A. BACKGROUND

Short-term macroeconomic fluctuations increasingly impact on the socio-economic wellbeing of people in countries all over the world. As multiple economic shocks, crises, and emergencies strike at global, regional and national levels, developing countries, in particular, struggle to safeguard precious development gains, and race to adapt to new economic realities and their impact on both economic progress as well as social spending.

Many developing economies, including Arab economies, fall far short in providing policy/decision makers with a complete set of reliable, and methodologically transparent, short-term statistics (STSs). They also lack experience and technical knowledge in producing and disseminating such indicators. This results in exclusion or severely limited participation of these economies in building early warning systems for economic and financial crises.

It's worth mentioning that systems of short-term statistics and business cycle indicators are key components of early warning systems that are essential tools for policy planners and decision makers in both government and non-government organizations and agencies. They are essential for monitoring current and near future economic performance, and identifying turning points and growth at an early stage.

In line with ongoing international efforts for capacity building, and the growing need of ESCWA Member countries to access technical assistance on short-term statistics, the Statistics Division at UN ESCWA is currently implementing the project, *Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth*, in collaboration with the United Nations Statistics Division (UNSD) and other United Nations agencies, to strengthen the capacity of Member countries to produce and disseminate a core set of priority short-term statistics of appropriate quality and timeliness, together with their related metadata, in order to facilitate their review of economic performance and provide a basis for the preparation of future performance.

SECTION B. REGIONAL GUIDELINES OBJECTIVES

As an output to the project, Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth, the primary objective of the current Regional Guidelines on Short-term Statistics Based on Selected ESCWA Member Countries (hereunder referred to as the "Regional Guidelines") is to provide a guide that supports all countries in the Arab Region to produce and disseminate a small set of priority short-term statistics (STSs) identified by a group of seven pilot countries from the region. The pilot countries are: Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, and Tunisia.

The Guidelines will achieve this primary objective by:

- Outlining key conceptual issues relating to short-term statistics listed in UNSD's data template for short-term statistics;
- Discussing the overall uses of short-term statistics;
- Assessing the availability of and gaps in the dissemination of short-term statistics in the pilot countries;
- Reviewing some of the quality dimensions of indicators currently produced by pilot countries such as frequency, timeliness in the context of international recommendations;
- Discussing the main data constraints, obstacles and quality issues identified by pilot countries and how they could be addressed;
- Providing definitions of the priority short-term statistics identified by the pilot countries and outlining their policy relevance;
- Identifying the main capacity development requirements of the pilot countries that would also be relevant for other countries in the Arab Region;
- Reviewing current international standards for early warning systems and examining current national practices used by countries in other regions.

The current Regional Guidelines follows on from earlier publications prepared by UN ESCWA, namely: Study on Economic Statistics in the ESCWA Region: Sources and Methods [ESCWA 2011]; Handbook on Statistical Metadata for the ESCWA Region [ESCWA 2011a]; and Study on Short-term Economic Indicators for the Arab Region [ESCWA 2013]. These three publications provide an Arab Region context for a number of global international initiatives and recommendations on the development of early warning systems – refer section R below.

1. Regional Guidelines outline

The *Regional Guidelines* is divided into three Parts:

Part I of the Guidelines outlines the availability of a wide range of short-term statistics in the seven pilot countries. It then assesses this availability in the context of selected data quality dimensions and international statistical standards/guidelines and best practice by countries in the region or other regions around the world (such as Europe, and Asia and the Pacific).

Part II discusses the subset of priority short-term statistics identified by the pilot countries and analyses key data quality issues for those indicators. This Part also provides recommendations and examples of best practice for the institutional issues identified by the pilot countries and key data quality issues for each of the priority indicators.

Part III discusses components of early warning systems that have been developed, or are in the process of being developed, by national statistical organizations (NSOs) around the globe, in particular, by Member countries of the European Union (EU). The STSs discussed in Parts I and II of the current publication are key elements or inputs for some of the components of such early warning systems as illustrated in the following diagram.

As will be discussed in Part III of the Guidelines, the compilation of flash estimates/rapid estimates are attempts by statistical agencies to improve the timeliness of key STSs in relation to their reference period.

Part III of the current publication focuses on raising the awareness of national statistical systems in the ESCWA region on the important role of these indicators, and to urge them to strengthen their early warning systems in order to provide those involved in evidence-based policy making, as well as researchers, with coherent and consistent information needed for the analysis of economic developments. Particular attention is given to discussing how these indicators are used by national policy makers in both government and non-government organizations.

In addition to these three parts of the Guidelines, a case study of an economic confidence indicator for one of the pilot countries (Tunisia) is provided in annex 4.

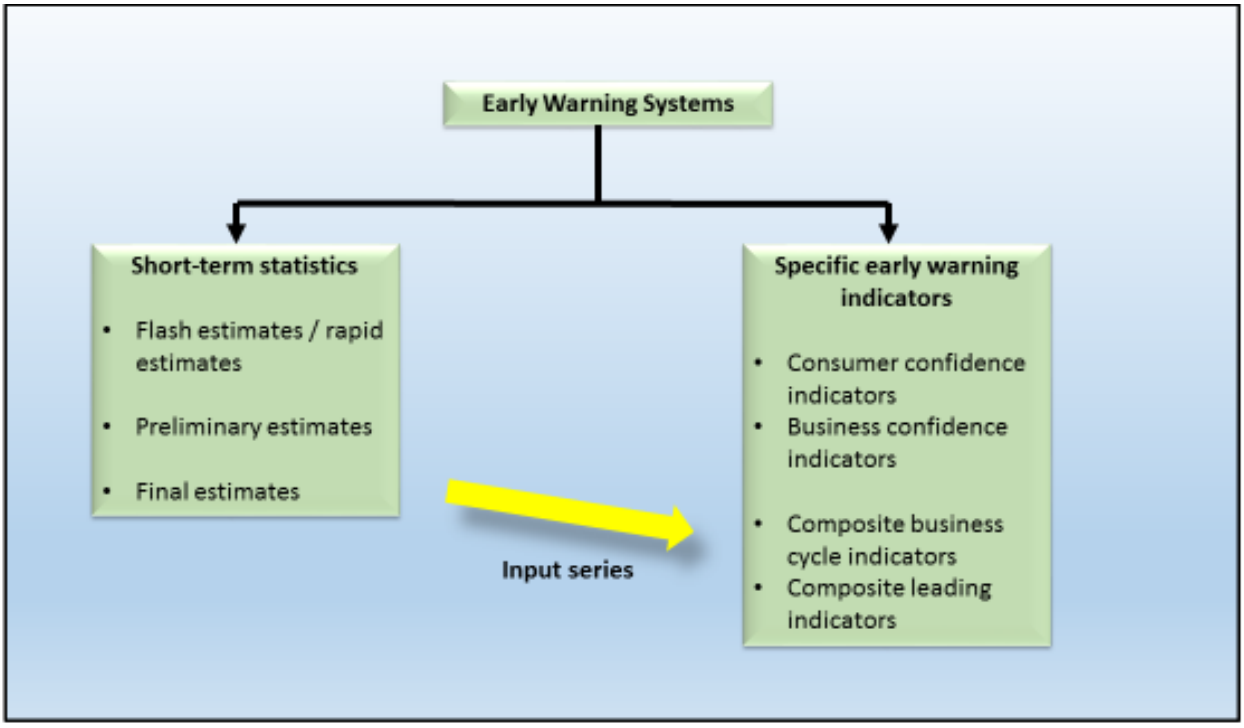
2. Development methodology

The *Regional Guidelines* presents a number of recent international initiatives in the development of global standards and guidelines for both STSs and specific early warning indicators referred to in diagram 1 below. These initiatives encompassed the:

- Formulation of a data template of analytical indicators;
- Handbook on the compilation of rapid estimates;
- Handbook on the development of tendency surveys;
- Handbook on the development of business cycle composite indicators.

These initiatives provide the context for work being undertaken by NSOs in the Arab Region in concert with the programme, Strengthening the Statistical Capacity of ESCWA Member Countries in Producing and Disseminating Short-term Economic Indicators for Sustainable Growth. Key features of these recent international initiatives are quoted at length in the current publication, though in order to minimize duplication of effort, extensive links to parts of other recent international standards are also provided.

Diagram 1. Components of early warning systems



In order to maximize the relevance of the text/recommendations, etc., in the *Regional Guidelines* to countries in the Arab Region, detailed information on methodologies currently used by the seven pilot countries for the collection, compilation and dissemination of STSs and specific early warning indicators were assessed by the UN ESCWA Secretariat in 2015.

The assessment was carried out in a number of stages. The first stage included a questionnaire that UN ESCWA prepared and sent to the pilot country NSOs which was then shared by them with other national agencies involved in the production of STSs, namely, central banks, planning ministries, finance ministries, etc., to obtain information relevant to their involvement – refer annex 1.

The questionnaire was divided into two parts. The first part focused on specific questions such as the name of national institutions responsible for compiling the indicators, periodicity, length of time series available, computation, validation and estimation methodologies used, international standards and recommendations used, dissemination platforms used, availability of metadata and capacity building needs to produce or improve the quality of the STS. The second part of the questionnaire covered ten general questions which investigated improvements in producing STSs, capacity building priorities and needs, the economic indicators utilized in the compilation of early warning/composite indicators, and whether current IT capabilities were sufficient for processing.

The second stage of the assessment involved UN ESCWA Secretariat missions to each of the seven pilot countries during 2015 to organize meetings with experts from the national institutions involved in the production and dissemination of STSs. During those meetings, responses to the UN ESCWA questionnaire were thoroughly discussed to identify the main difficulties faced by those institutions with regard to STSs. A national consultant hired by UN ESCWA attended those meetings and participated in the discussions. Follow up meetings were conducted by the national consultant as required to obtain further information not covered during UN ESCWA delegates meetings with those institutions. The output of this phase of the project was the preparation of a draft assessment report for each country by the national consultant outlining the main findings.

The country assessment reports, together with information from other sources such as international statistical guidelines and recommendations, etc., were then used as inputs to the preparation of a draft *Regional Guidelines* publication. These were supplemented as required with methodological information from the IMF SDDS/GDDS or national statistical agency websites. The priority short-term statistics and early warning systems were discussed by national experts from the pilot countries and international experts at an Expert Group Meeting (EGM) held in Jordan on 16-18 February 2016. The discussions further clarified national barriers to either the development of priority indicators not currently compiled or the improvement of existing indicators, together with preferred modes of capacity development delivery.

After inclusion of comments and suggested revisions to the draft document from experts participating in the EGM and UN ESCWA, a final version of the Guidelines was completed in August 2016.

SECTION C. SCOPE OF SHORT-TERM STATISTICS COVERED IN REGIONAL GUIDELINES

Over the last few years a number of related frameworks listing priority short-term statistics have been developed by international organizations in cooperation with national statistical organizations (NSOs). These frameworks include: The *Principal European Economic Indicators (PEEIs)*; *Principal Global Indicators (PGIs);* UN ESCAP's *Core Set of Economic Statistics*,[1] and the United Nation's *Data Template and Metadata for Short-term Statistics*.[2] There is considerable overlap in the indicator coverage of each of these frameworks. The priority indicators listed in each framework are intended to facilitate the frequent monitoring of the economic and financial developments at the national level. They can also be used to monitor the implementation and quality of these indicators by countries.

The indicator coverage of the United Nations *Data Template* (refer annex 7) is derived from work conducted at the global level over the last eight years on the implementation of the 2008 System of National Accounts (SNA) and their supporting statistics. This template is consistent with the template used in the IMF's Special Data Dissemination Standard (SDDS) and General Data Dissemination Standard (GDDS). Annex 8 below lists each indicator, together with its target periodicity. This was determined through the deliberations of the various working groups involved in the global Early Warning and Business Cycle Indicators Project that was presented to and endorsed by the United Nations Statistical Commission (UNSC) in 2011.

The global template was further modified in order to identify an initial set of 67 indicators that meet the specific needs and priorities of countries in the Arab Region. These indicators were embedded in questionnaire (refer annex 1) used by the UN ESCWA Secretariat for the preparation of country assessment reports in 2015 to identify their availability and to review the methodologies used by the pilot countries in their collection, compilation and dissemination. The questionnaire was developed using information from earlier questionnaires completed by countries in the region and discussions at a number of regional meetings in recent years, including the June 2013 Expert Group Meeting held in Jordan.

In the context of the current *Regional Guidelines* publication the "menu" of 67 macroeconomic indicators from which pilot countries in the Arab Region identified a subset of priority indicators is provided in the first two columns of annex 1 below. The current international statistical standard or guidelines for each indicator is discussed below in section H and the scope, analytical framework and statistical framework of each set in section N below.

[1] The number of indicators included in each of these frameworks is: PEEI: 22; PGI: 39; UN ESCAP's Core Set: 32: Data Template: 63. Further information on the indicator coverage of each of these frameworks is available in the UN ESCWA paper, *Priority Short-term Economic Statistics for the Arab Region*, [refer http://css.escwa.org.lb/sd/2163/21-4.pdf] prepared for the High-Level meeting and Regional Seminar on the Implementation 2008 SNA and Supporting Statistics in the Arab Region, 24-27 June 2013, Amman, Jordan - available at http://www.escwa.un.org/information/meetingdetails.asp?referenceNum=2163E.

[2] Refer *Report of the International Seminar on Timeliness, Methodology and Comparability of Rapid Estimates of Economic Trends* 27-29 May 2009, Ottawa, Canada – available at http://unstats.un.org/unsd/nationalaccount/workshops/2009/ottawa/AC188-5.PDF.

SECTION D. WHAT ARE KEY SHORT-TERM STATISTICS

1. What are key economic indicators

The formal definition of an economic indicator provided in Eurostat's *Rapid Estimates Glossary* "is a time series, *per se* or in conjunction with another time series, which helps to interpret the movements related to the economy as a whole or to a part of it. Some examples are: Gross domestic product (GDP), Unemployment rate, Consumer price index (CPI) and Industrial production. Economic indicators allow analysis of economic performance and predictions of future performance, and they can be classified into three categories (according to their usual timing in relation to the business cycle): leading indicators, lagging indicators, and coincident indicators." [Eurostat 2012]

Less formally, key economic indicators are *timely* statistical *time series* that reflect the current status of *key aspects* of a country's economy. Key elements of this definition are:

- *Timely:* Indicating that the data need to be disseminated as soon as possible after the reference period to which they relate. This implies that the data needs to be compiled/disseminated infra-annually, i.e. monthly or quarterly;
- *Time series:* Indicating that the data need to be compiled/disseminated on a regular basis over time in order to be able to identify period-to-period changes and in some instances absolute changes between reporting periods;
- *Key aspects:* The actual indicators themselves must measure aspects of a country's economy that are of economic significance. This implies that, whilst there is considerable overlap in the mix of key macroeconomic indicators chosen by countries in a particular region or around there globe, there may be specific indicators that are of particular importance to an individual country or region. Such importance may be a reflection of the priorities of government and non-government policy-makers within a country and/or region.

As the title indicates, the priority of the current *Regional Guidelines* is "economic" short-term statistics. There is a growing trend in a number of countries to identify annual and infra-annual indicators that reflect the overall well-being and progress of its citizens. Such analyses require the inclusion of a broader range of indicators that reflect social and environmental issues that are outside the scope of the current Guidelines. An example of such a broad set of economic-socio-environmental issues is those disseminated by the Australian Bureau of Statistics (ABS) in their annual publication, *Measures of Australia's Progress* [ABS 2013].

Short-term statistics comprise a range of statistical series that are generally compiled and disseminated on a daily, weekly, monthly or quarterly basis that shed light on recent developments in key aspects of national economies.[3] They are tools for formulating and monitoring economic and monetary policy by national governments and central banks, companies, academic institutions and financial markets. Short-term statistics are also used in conjunction with other economic datasets, such as the national accounts. Short-term statistics are also key inputs to the compilation of national accounts.[4]

Short-term statistics facilitate analysis of economic performance and provide a basis for the preparation of forecasts of future performance. A more specific application of economic indicators is the study of business cycles. Economic indicators measure short-term movements in key areas of the economy – money supply, changes in prices paid by consumers for goods and services, changes in the selling prices of goods and services

[3] For the purposes of this publication the term "statistic" is occasionally used as a synonym for "indicator", though semantically an economic indicator is a statistic about an economic activity. [Wikipedia, definition of term "economic indicator" – available at http://en.wikipedia.org/wiki/Economic_indicator].

[4] Eurostat, Short-term business statistics (STS) in brief, Eurostat, Luxembourg – available at http://epp.eurostat.ec.europa.eu/portal/page/portal/short_term_business_statistics/introduction/sts_in_brief.

received by producers, changes in consumer perceptions about the health of the national economy, increases/decreases in number of persons employed/unemployed, changes in the level of consumer spending, changes in the level of building activity, changes in the level of production in manufacturing and mining, etc.

2. Importance of key macroeconomic indicators

Short-term macroeconomic fluctuations are known to have long-term economic consequences. As a result of globalization and a rapidly expanding financial sector in the Arab Region, short-term policy issues have become more critical for policymakers in their quest to guide the short-term direction of economies.[5]

In order to make economic growth sustainable, up-to-date economic analysis and forecasting are essential, particularly over the short-term. For example, the national budgets of most ESCWA Member countries are proposed and discussed in the fourth quarter of each calendar year, but the availability of key indicators currently lag behind that time frame in many countries. A key requirement therefore is to improve on the current periodicity and timeliness of these indicators at the national level. However, the lack of methodologically transparent quarterly and monthly economic data in most ESCWA Member countries has resulted in difficulties in measuring and projecting the consequences of short-term economic developments.

The lack of timely short-term statistics and their metadata is also a critical constraint for the compilation of composite economic indicators[6] in developing economies, particularly in the Arab Region. Such indicators measure concepts that cannot be evaluated by a single indicator. Composite short-term statistics such as composite leading and composite coincident indicators are designed to provide early signals about the business cycle and the overall economy respectively. Monitoring the peaks, troughs and turning points of those indices can identify early warning signs which in turn allow decision-makers to respond through effective policies.

The compilation of composite economic cyclical indicators is highly dependent on the availability of timely key quantitative component short-term statistics such as oil prices, electricity production and consumption, government revenue and expenditure, interest rates, inflation and exchange rates, customs data, the number of visitors to the country and the number of construction permits, etc.

[5] ESCWA, 2013, *Draft Concept Note for a Study on Short-term Economic Indicators for the Arab Region*. Paper prepared for the 10th session of the Statistical Committee, Cairo, January 2013 [E/ESCWA/SD/2012/IG.1/CRP.3], Part I – refer http://css.escwa.org.lb/sd/1986/18e.pdf

[6] A composite economic indicator is formed when individual indicators are compiled into a single index, on the basis of an underlying model of the multi-dimensional concept that is being measured. Composite economic indicators measure concepts (e.g. competitiveness, e-trade, environmental quality, business or consumer expectations, etc) which cannot be captured by a single indicator. Ideally, a composite indicator should be based on a theoretical framework which allows individual indicator variables to be selected, combined and weighted in a manner which reflects the dimensions or structure of the phenomena being measured - *Handbook on Constructing Composite Indicators: Methodology and User Guide* [OECD – JRC, 2008].

PART I

REVIEW OF SHORT-TERM STATISTICS IN PILOT COUNTRIES

Introduction

Part I of the *Regional Guidelines* publication outlines the availability of a broad set of short-term statistics included in the assessment questionnaire by the seven pilot countries. It then reviews each of the short-term statistics that are currently compiled by the seven pilot countries in the context of some of the dimensions of data quality, namely:

- Frequency;
- Timeliness;
- The stated use of the relevant international statistical recommendation(s)/guideline(s);
- Validation methodologies;
- Availability of methodological information.

This Part of the Guidelines then discusses the main obstacles, constraints and data quality issues identified by the pilot countries for each STS.

Recommendations for improvement of the frequency, timeliness, use of validation methodologies and metadata availability, together with examples best practice are provided in Part II of the current Guidelines publication – *Priority Short-term statistics in the pilot countries*.

As shown in the following table, the seven pilot countries subscribe to either the IMF's Special Data Dissemination Standard (SDDS) or General Data Dissemination Standard (GDDS). Key elements of both standards is the provision and maintenance of structured metadata, periodic *Reports on the Observance of Standards and Codes* (ROSC), the preparation of annual observance reports (for SDDS subscribers) and the provision of plans for improvement (by GDDS subscribers). This information has been used to supplement and clarify information collected during the UN ESCWA reviews of STSs compiled, etc., by the pilot countries.

Table 1. Pilot country subscription to either IMF SDDS or GDDS

Country	Subscribes to IMF GDDS/SDDS	Last data dissemination ROSC	Last SDDS annual observance report	GDDS plans for improvement available
Egypt	SDDS	July 2005	2014	-
Tunisia	SDDS	August 2006	2014	-
Qatar	GDDS	-	-	no
Palestine*	SDDS	-	2014	-
Jordan	SDDS	February 2004	2014	-
Oman	GDDS	June 2015	-	yes
Lebanon	GDDS	-	-	yes

* West Bank and Gaza.

SECTION E. AVAILABILITY OF SHORT-TERM STATISTICS IN THE PILOT COUNTRIES

As shown in the overview in table 2 below, the country assessment reports indicated that many of the 67 short-term statistics (STSs) outlined in the UN ESCWA Secretariat review questionnaire (refer annex 1) are not currently compiled and disseminated by the seven pilot countries. As will be shown in subsequent sections of the current publication, this non-availability arises from a number or combination of factors such as low priority attached to the indicator by government and non-government users in the country, insufficient resources to develop and ensure on-going collection/maintenance of the indicator, or insufficient skill/knowledge base for the indicator within the country.

Table 2. Overview of STSs currently disseminated in pilot countries

	STSs available		STSs not available*		Total STSs
Country	**No.**	**%**	**No.**	**%**	**No.**
Egypt	46	69	21	31	67
Tunisia	48	72	19	28	67
Qatar	32	48	35	52	67
Palestine	36	54	31	46	67
Jordan	40	60	27	40	67
Oman	20	30	47	70	67
Lebanon	27	40	40	60	67

* Includes a small number of indicators compiled but not disseminated by the statistical agency.

The availability of each of the individual 67 STSs in the seven pilot countries identified during the review process is summarized in table 3 below. Those indicators identified as being high priority across the seven countries are shaded.

Table 3. Availability of short-term statistics – summary

(*Indicators where countries specified need for capacity development shaded*)

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	no	no	no	no	no	no	no
	GDP by income	no	no	no	no	no	no	no
	GDP by production	yes	yes	yes	yes	yes	yes	yes
	GDP by expenditure	yes	no	yes	yes	no	no	yes
	Quarterly Institutional sector accounts	yes	no	no	NI	no	no	no
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	yes	yes	yes	yes	yes	no	no
	Production index for construction	no	no	no	no	no	no	no
	Turnover index for retail trade by major division	no	no	no	no	no	no	no
	Turnover index for industry by major division	yes	yes	no	no	no	no	no
	Turnover index for other services by major division (excluding financial services and non-commercial services)	no	no	no	no	no	no	no
	New orders index for industry by major ISIC division (for those that work on order)	no	no	no	NI	no	no	no

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	New orders index for construction (building permits or housing starts)	no	no	yes	NI	no	yes	no
	Commodity production: Agricultural products	yes	yes annually	no	NI	yes	no	no
	Commodity production: Minerals	yes	yes annually	no	NI	yes	no	no
	Commodity production: New car registrations	yes	yes annually	yes	NI	no	yes	yes
	Commodity production: New commercial vehicle registrations	yes	yes annually	yes	NI	no	no	no
	Commodity production: Tourist arrivals	yes	yes	yes	NI	yes	yes	yes
3. Prices	CPI	yes	yes	yes	yes	yes	yes	yes
	PPI	yes	yes	yes	yes	yes	yes	no
	Import price index	no	yes	no	no	yes	no	yes not pub.
	Export Price Index	no	yes	no	no	yes	no	yes not pub.
4. Labour market indicators	Unemployment	yes	yes	yes	yes	yes	no	no
	Unemployment rate	yes	yes	yes	yes	yes	no	no
	Employment total and by economic activity	yes	yes	no	yes	yes	no	no
	Hourly wage rate	yes	yes	no	yes	no	no	no
	Hours of work	yes	yes	no	yes	yes	no	no
5. External sector accounts	Exports and imports (of goods and services)	yes goods	yes	yes	yes	yes	yes	yes
	International investment position (IIP), specify balances and components	yes	yes	no	yes	yes	no	yes not pub.
	Official reserve assets	yes	yes	yes	yes	yes	no	yes
	External debt (by sector, maturity and foreign currency)	yes	yes	no	yes	yes	yes	yes
6. Financial sector indicators	Central Bank net foreign assets	yes	yes	yes	yes	yes	yes	yes
	Central Bank domestic lending	yes	yes	yes	yes	yes	yes	yes
	Central Bank reserve money	yes	yes	yes	yes monthly	yes	yes	yes
	Depository corporations net foreign assets	yes	yes	yes	yes	yes	yes	yes
	Depository corporations domestic lending	yes	yes	yes	yes quarterly	yes	yes	yes
	Depository corporations broad money liabilities	yes	yes	yes	yes quarterly	yes	yes	yes
	Other financial corporations balance sheet, assets and liabilities by sector	yes	yes	yes	yes	no	no	yes
	Financial corporate profits	yes	yes	yes	yes	no	no	no
	Financial corporate debt	yes	yes	yes	yes	no	no	no
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	no	yes	yes	yes	yes	yes	no
7. General government	Revenue	yes	yes	yes	yes	yes	yes	yes
	Expenses	yes	yes	no	yes	yes	no	yes

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
sector indicators	Net operating balance (= Revenue – Expense)	yes	yes	no	yes	yes	no	yes
	Net acquisition of non-financial assets	no	no	no	yes	no	no	no
	Expenditure	yes	no	yes	yes	yes	yes	yes
	Net lending/net borrowing (= Revenue - Expenditure)	yes	yes	yes	yes	yes	yes	yes
	Gross debt	yes	yes	no	yes	yes	no	yes
8. Household sector indicators	Household disposable income	yes	yes	no	no	Not disseminated but can be calculated	no	no
	Household saving	yes	yes	no	no	no	no	no
	Household debt	no	yes	no	no	no	no	no
	Other as relevant: debt service and principal payments, etc	no	yes	no	no	no	no	no
9. Non-financial corporations sector indicators	Non-financial corporate profits	no only annually	yes	no	no	no	no	no
	Non-financial corporate debt	no only annually	yes	no	no	no	no	no
	Other as relevant	no only annually	yes	no	no	no	no	no
10. Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	yes	yes	yes	yes	yes	no	yes
	Exchange rates, as relevant spot and forward markets	yes	yes	yes	yes	yes	no	yes
	Nominal and real effective exchange rate	no	no	no	no	no	no	no
	Stock market indicators	yes	yes	yes	yes	yes	yes	yes
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	no	yes	yes	no	not sure	no	yes
11. Real estate market indicators	Residential property price index	no	no	yes	no	yes	yes	no
	New house sales	no	no	no	no	no	no	no
	Existing house sales	no	no	no	no	no	no	no
12. Economic sentiment	Consumer confidence	yes not NSS	no	yes	no	no	no	no
	Business confidence	yes not NSS	yes	yes	no	no	no	yes
	Composite Business Cycle Indicators: Leading Indicator	no	no	no	no	no	no	yes not pub.
	Composite Business Cycle Indicators: Coincident Indicator	no	no	no	no	no	no	yes
	Composite Business Cycle Indicators: Lagging Indicator	no	no	no	no	no	no	no

Not pub.: Not published; Not NSS: Not compiled within the national statistical system; NI: Availability not indicated.

From the above information on the availability of individual STSs in each of the seven pilot countries, potential gaps in the availability of these indicators is further emphasized in the following table. As mentioned above, the word "potential" should be emphasized as a number of the indicators not available for individual countries are deemed to be of low user priority and are therefore not required. As can be seen in the following table the availability gaps include indicators in all of the 12 STS sets identified in the UNSD *Data Template*.

Table 4. Potential STS availability gaps

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	no	no	no	no	no	no	no
	GDP by income	no	no	no	no	no	no	no
	GDP by expenditure	yes	no	yes	yes	no	no	yes
	Quarterly Institutional sector accounts	yes	no	no	NI	no	no	no
2. Production and turnover	Production index for construction	no	no	no	no	no	no	no
	Turnover index for retail trade by major division	no	no	no	no	no	no	no
	Turnover index for industry by major division	yes	yes	no	no	no	no	no
	Turnover index for other services by major division (excluding financial services and non-commercial services)	no	no	no	no	no	no	no
	New orders index for industry by major ISIC division (for those that work on order)	no	no	no	NI	no	no	no
	New orders index for construction (building permits or housing starts)	no	no	yes	NI	no	yes	no
	Commodity production: Agricultural products	yes	yes annually	no	NI	yes	no	no
	Commodity production: Minerals	yes	yes annually	no	NI	yes	no	no
	Commodity production: New car registrations	yes	yes annually	yes	NI	no	yes	yes
	Commodity production: New commercial vehicle registrations	yes	yes annually	yes	NI	no	no	no
3. Prices	Import price index	no	yes	no	no	yes	no	no
	Export Price Index	no	yes	no	no	yes	no	no
4. Labour market indicators	Hourly wage rate	yes	yes	no	yes	no	no	no
	Hours of work	yes	yes	no	yes	yes	no	no
5. External sector accounts	International investment position (IIP), specify balances and components	yes	yes	no	yes	yes	no	yes
6. Financial sector accounts	Other financial corporations balance sheet, assets and liabilities by sector	yes	yes	yes	yes	no	no	no
	Financial corporate profits	yes	yes	yes	yes	no	no	no
	Financial corporate debt	yes	yes	yes	yes	no	no	no

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
7. General government sector accounts	Expenses	yes	yes	no	yes	yes	no	yes
	Net operating balance (= Revenue – Expense)	yes	yes	no	yes	yes	no	yes
	Net acquisition of non-financial assets	no	no	no	yes	no	no	no
	Expenditure	yes	no	yes	yes	yes	yes	yes
	Gross debt	yes	yes	no	yes	yes	no	yes
8. Household sector indicators	Household disposable income	yes	yes	no	no	Not disseminated but can be calculated	no	no
	Household saving	yes	yes	no	no	no	no	no
	Household debt	no	yes	no	no	no	no	no
	Other as relevant: debt service and principal payments, etc	no	yes	no	no	no	no	no
9. Non-financial corporations sector indicators	Non-financial corporate profits	no only annually	yes	no	no	no	no	no
	Non-financial corporate debt	no only annually	yes	no	no	no	no	no
	Other as relevant	no only annually	yes	no	no	no	no	no
10. Financial market indicators	Nominal and real effective exchange rate	no	no	no	no	no	no	no
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	no	yes	yes	no	not sure	no	yes
11. Real estate market indicators	Residential property price index	no	no	yes	no	yes	yes	no
	New house sales	no	no	no	no	no	no	no
	Existing house sales	no	no	no	no	no	no	no
12. Economic sentiment	Consumer confidence	yes not NSS	no	yes	no	no	no	no
	Business confidence	yes not NSS	yes	yes	no	no	no	yes
	Composite Business Cycle Indicators: Leading Indicator	no	no	no	no	no	no	yes
	Composite Business Cycle Indicators: Coincident Indicator	no	no	no	no	no	no	yes
	Composite Business Cycle Indicators: Lagging Indicator	no	no	no	no	no	no	no

Not NSS: Not compiled within the national statistical system; NI: Availability not indicated.

SECTION F. FREQUENCY OF STSs V. RECOMMENDED FREQUENCY

One of the key dimensions of data quality for users of short-term statistics is the frequency of their availability. Data are generally required at either monthly or quarterly frequency and this aspect is reflected in the international standards and guidelines relevant for each indicator. Over the last two decades, NSOs around the globe have devoted considerable resources to improving the frequency at which STSs are collected, compiled and disseminated.

This section analyses the frequency of short-term statistics currently disseminated by each of the seven pilot countries against the frequencies recommended in the UNSD *Data Template*. Information on STS frequency was derived from the individual country assessment reports. As can be seen in table 5 below (which summarizes the more detailed information presented below in annex 8), most of the indicators currently disseminated comply with the relevant international recommendation. The main frequency issue is the current availability of some indicators for some countries only on an annual basis rather than quarterly or monthly as commonly required by national users.

As will be discussed further below in section K, reasons for the non-availability of the indicator for monthly and quarterly reference periods stem from a number of often related causes such as funding, skill capacity of existing staff, non-existent or inadequate data sources, etc.

Table 5. Recommended frequency of short-term statistics v. actual frequency in pilot countries

Adherence to international recommendations	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
Adheres	27	25	27	27	24	17	22
Does not adhere	17	13	3	4	7	4	8
Not applicable (not compiled/disseminated)	18	18	34	25	31	46	31
Unknown/availability not indicated	5	11	3	11	5	-	6
Total	67	67	67	67	67	67	67

SECTION G. TIMELINESS OF STSs V. RECOMMENDED TIMELINESS

Just as important as the frequency of the STS is the quality dimension "timeliness". This refers to the length of time after the reference period at which the indicator is available to users. Over the last two decades, NSOs around the globe striven to identify and overcome the barriers that impact on the timeliness of the indicators they disseminate. These include delays that occur in all phases of the collection, compilation and dissemination cycle. The global financial crises of 2008/2009 heightened the pressure on national statistical agencies by government users in particular to improve the timeliness of the indicators they produce. As will be discussed further below in section G, NSOs have responded in a number of ways to reduce the time required to collect and process the data whilst at the same time maintaining data quality. These responses include:

- Making greater use of administrative data sources, thereby freeing up resources to improve downstream compilation and dissemination processes;
- Developing flash estimates for key STSs such as quarterly national accounts and consumer price indices;
- Complementing the availability of conventional STSs with a range of new consumer and business confidence indicators.

Table 6 below (which summarizes the more detailed information provided in annex 9 below) shows the timeliness of the STSs currently disseminated by the seven pilot countries compared with the recommendations in the UNSD *Data Template* or the IMF's SDDS/GDDS. Information on STS timeliness was derived from the individual country assessment reports. As can be seen from the information available for countries, the timeliness of the indicators generally complies with the international recommendations. However, this statement should be seen in the light of the fact that timeliness information is currently not available for many of the relevant (not indicated) cells in the table. One of the main causes of the absence of timely data for some indicators by some countries stems from their annual frequency.

Table 6. Recommended timeliness of short-term statistics v. actual timeliness in pilot countries

Adherence to international recommendations	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
Adheres	24	16	11	12	22	7	16
Does not adhere	19	6	5	2	-	8	3
Not applicable (not compiled/disseminated)	18	18	34	25	31	46	31
Unknown/Availability not indicated	6	27	17	28	14	6	17
Total	67	67	67	67	67	67	67

SECTION H. RELEVANT STSs INTERNATIONAL STANDARD V. STANDARD ACTUALLY USED BY PILOT COUNTRY

Over the last 20 years international organizations, in co-operation with national statistical agencies, have developed an extensive array of international statistical standards and guidelines, compilation guides /manuals, etc., covering almost all of the short-term statistics listed in the UN ESCWA questionnaire used for the review of indicators disseminated by the seven pilot countries (refer annex 1). The focus of these standards are conceptual, definitional and classification issues and recommended practices for the collection, compilation and dissemination of indicators. International standards developed in more recent years have been developed within the integration framework of the System of National Accounts (SNA) 1993 and, in particular, 2008. The main objectives of these standards and their associated compilation manuals within this framework are to facilitate the development of a range of STSs that are conceptually coherent, of appropriate quality and which are broadly comparable between countries. In the context of quality, the standards also provide a benchmark against which the quality of currently available indicators may be assessed and new indicators developed.

As can be seen in the References section (section V) of the current Guidelines, almost all of the international standards and compilation manuals are readily available online. Moreover, many of the key IMF and United Nations standards etc., are available in Arabic.

This section briefly analyses the responses given by the pilot countries to the review question on methodology and international standard(s) used for each STS currently compiled by the national statistical agency. These responses are summarized in more detail in annex 10 below. The main features of which, in addition to other information provided during the review, are outlined below.

- Where information has been provided by the agency, almost all of the indicators disseminated are based on the relevant international standard. This would indicate that, given many of the key standards have been translated into Arabic; their availability is not an overriding issue. Furthermore, as shown in section O below, *Main Data Quality Issues Identified*, countries readily identify specific data quality issues with respect to their current STS outputs. It should be noted however, that many of the compilation guides, such as those published by Eurostat and the IMF, that provide practical implementation recommendations and, which often summarize current national practices, are not currently available in Arabic;

  The nature of the type of technical assistance required by almost all of the seven pilot countries relate to the practicalities of the actual implementation of the international recommendations and guidelines, e.g. help with identification of the appropriate national source data, data compilation issues, etc., in the context of the key target variable definitions and concepts embedded in the standards. In this sense, on-the-job training is sought from other agencies with a track record of proven performance on the collection, compilation and dissemination of the particular indicator. Ideally, such assistance would be from another country in the Arab Region, or if not available, from other regions;

- Given the availability of many of the key international standards in Arabic, their non-availability in the language was only raised a couple of times in the review reports – with respect to the PPI Manual and the need for an Arabic version of the Harmonized System classification for the compilation of import/export price indices;

- National accounts for all seven countries are based on SNA 1993, though some of the countries are working towards the implementation of SNA 2008.

SECTION I. VALIDATION METHODS USED BY PILOT COUNTRIES

This section outlines the range of validation methods used by the pilot countries to ensure data quality that was identified during the review assessment of the short-term statistics conducted by the UN ESCWA Secretariat over 2015. The review also identified whether or not assessments of data quality were systematically undertaken within the context of a data quality framework. As can be expected, the review identified a number of validation techniques, many of which were specific to the STS being reviewed. In addition, some of the countries (e.g. Egypt, Tunisia, Palestine and Oman) mentioned that quality assessments were undertaken using the IMF Data Quality Assessment Framework (DQAF - refer annex 2 below).

1. Validation techniques used

The types of validation techniques used by the pilot countries may be differentiated by the nature of the data sources used for the compilation of the STS, i.e. primarily from surveys conducted by the agency or the use of existing administrative data from other institutions in the national statistics system. Furthermore, a number of the pilot countries (e.g. Egypt) mentioned their use of the recommended practice of assessing data quality at each phase of the processing cycle (i.e. collection, compilation and dissemination) using a combination of manual and automated techniques. Several agencies (e.g. Egypt Central Bank BoP compilation) mentioned the use of data revision studies and analyses as being a part of ongoing routine internal quality control exercises whereby the results of adjustments in the statistical processes are considered when compiling data for later periods.[7]

Much of this work is undertaken by the statistical domain specialists, though several countries mentioned the role of specific units established within the organization to independently carry out some of the validation and quality assessment functions (e.g. Egypt's CAPMAS Quality Control Department,[8] Palestine's PCBS Quality Management Department.

Specific examples of recommended data validation practices reported by the pilot countries in their assessment reports are shown below in table 7. As discussed further below in section Q.1, recommended international practice calls for the development and implementation of a corporate policy on the systematic and ongoing review of all statistical outputs disseminated by the statistical agency, including STSs.

Table 7. Examples of data Validation processes applied by pilot countries

Country	Domain	Activity
Survey data		
Egypt	Manufacturing	Data obtained from the Manufacturing Survey are crosschecked for plausibility against quarterly data and annual data. In the questionnaire, CAPMAS may ask the company about the reasons behind the existence of large discrepancies/inconsistencies in the values of production between this month and the previous one. The quantity is compared with the value of production to get the average price, and in case of inconsistency between the value and the quantity, the staff verifies the data.
Egypt	Prices	Data collectors verify all price changes and are required to provide explanations for unusual fluctuations. The calculations are reviewed by statisticians in the

7 This type of activity recognises the trade-off between timeliness and data quality and seeks to ensure that the data produced meets user needs with respect to punctuality of availability whilst meeting the requirements of data quality and methodological transparency.

8 For example, the Quality Control Department regularly carries out checks by recollecting partial information from the CAPMAS labour force survey and compares it to data already collected by enumerators. Monthly reports on the performance of the enumerators and supervisors are prepared and submitted to the concerned staff and to the President of the organization. The unit also performs data checks by randomly selecting a specific percentage of households, contacts them and asks them some questions from the Labour Force questionnaire, in order to assess the performance of the fieldwork.

Country	Domain	Activity
		Price Division for rationality and consistency with external information. Intermediate data are reviewed by statisticians of the price sections who investigate the extreme price from the data collectors. All discrepancies and other problems in statistical outputs are solved by investigating the corrected prices.
Egypt	Labour force survey	Coding and data entry verification is made on a sample basis for each coder/keys. Finally, single and cross tabulations are examined before data dissemination. In the July 2015 round, tablets will be used for data collection in the field which have the capacity to edit data as it is obtained from the respondent.
Egypt	Wages	CAPMAS conducts field quality assurance using the call back method and by sending someone to the field to check if the data was well retrieved.
Egypt	Depository corporations	The accuracy and reliability of bank balance sheet data reported to the CBE are checked against other sources or information, such as published annual reports of individual banks, and reports on individual bank financial statements prepared by external auditors and submitted to the CBE. The CBE's Banking Supervision Sector team visits banks biannually to review the accuracy of the classification of the underlying accounting data on the reported balance sheet. Such reviews are also conducted on an ad hoc basis upon request by MPU. Aggregation for all banks may be cross-checked with aggregate monetary account.
Egypt	Household income, expenditure and consumption	Data quality is evaluated during each of the production phases to avoid or minimize errors to the lowest extent possible, through implementing field editing after completion of data collection from households in the regions, setting up a program for Survey Technical Committee Members and survey staff to visit field work in all regions to resolve any problems in the proper time, re-interviewing a sample of households by the Quality Control Department. Also, for the purpose of quality assurance, tables are generated for each survey outlining where internal consistency checks were performed to study the plausibility of mean household expenditure on major expenditure commodity groups and its variability over major geographic regions.
Qatar	National accounts	Although quality is at the core of all stages of processing, there is so far not an established Quality Assurance Framework. Compilers of national accounts data are aware of the principles of the IMF Data Quality Assessment Framework and try to adhere to the principles of integrity, reliability, coherence, serviceability and timeliness. There are time-series checks to ensure consistency and reliability of national accounts data. Unusual movements in output are investigated with the suppliers of the source information. For example, data on the output of exporting enterprises are crosschecked with the data on exports by product produced by the Foreign Trade Section. Data used for national accounts are consistent with that of the balance of payments prepared by the QCB. The plausibility of the estimates is ensured by extensive use of the commodity flow method and, by cross-checking with other relevant sources.
Qatar	Consumer and producer prices	For the CPI, unusual movements in the index are reviewed and verified two ways using a computerized system using Microsoft Excel and Microsoft Access: (i) Prices are compared with those of other similar outlets in the same period, and (ii) by comparison with the price of the same outlet for different periods. For the PPI, cross-checks are made with trends shown for selected items of the PPI basket.
Qatar	Labour force survey	Control measures are implemented to control coverage, response and non-response errors. Editing is entrusted to a select team of skilled supervisors. In certain cases, responses are verified by telephone with the respondent. The questionnaires, for all household members, are linked to the register of population maintained by the Ministry of Interior, rendering specific data about

Country	Domain	Activity
		the respondent (name, sex, date and place of birth, nationality). Data are adjusted using information on population available at the Ministry of Interior. Electronic devices and questionnaires are used to collect information, thus checks on consistency and completeness are made on-line during the interview.
Palestine	National accounts	A number of different validation methods are used during the compilation of the national accounts. For example: • All economic survey results are cross-checked with relevant labour force survey data to ensure consistency; • GDP by the production approach is reconciled with the expenditure approach; • Several validation checks are applied to data at their various levels of compilation. For example, the enumerators of the economic survey follow a program to validate data of each surveyed establishment, and if necessary, do a second visit. Data discrepancies are assessed and investigated. The quality of the national accounts is monitored. PCBS, within its Advisory Committee, examines national accounts statistics prior to release. The data Quality Assessment Framework (DQAF) for National Accounts statistics issued by the IMF was used to assess the work done on compiling national accounts.
Palestine	Production	A range of validation approaches are used for the collection and compilation of production data. • Survey results are checked by performing a second visit to surveyed establishments to double-check certain indicators, and by resolving non-response cases; • There are several editing rules and time series checks to ensure consistency and reliability of data; • Unusual movements in the output of industries, products or establishments are investigated to ensure accuracy; • Non-response and over-coverage of data are adjusted by the imputation method using the time series of the production of the same establishment or the percentage of change of the sector the establishment belongs to. Data from the annual industrial survey provide cross-checks on the annual movements of the indices. The Data Quality Assessment Framework (DQAF) issued by the IMF was used to assess the practices in compiling IPI compared with best practices.
Palestine	Labour survey	Labour force results are checked and compared with previous published data. For the PCBS labour force survey: • The assessment of the discrepancies for the published indicators is calculated in addition to the Coefficient of Variation (CV) for most of them; • LFS fieldworkers follow a consistent program, and if necessary, undertake a second visit to surveyed households to double-check; • Information on sampling errors, coverage and response rates are published.
Palestine	International investment position	• Routine assessments and revisions of source data, mainly surveys, are made. Unusual values of reported data in the questionnaires of the foreign investment survey are queried with the company or with the agency responsible for the data; • The data reported in the questionnaires are compared with the annual financial statements of the companies;

Country	Domain	Activity
		• All banks send their final data within the required period to the PMA, the data are then checked and validated by the PMA, and any major changes are tracked.
Jordan	National accounts	Information on concepts, definitions, data sources and statistical techniques is disseminated to the public. All deviations from internationally accepted standards are documented. More specifically: • The DOS analyses the source data in the context of revisions; • For the census and surveys, random checks are always made. A large part of those take place in the field by survey supervisors; • Establishment data is analysed using the software tools of the SQL database; • The administrative data from the Ministry of Finance, Customs Office and the Tax Administrations are assessed for accuracy; • Intermediate data on major activities, mainly in industry, are assessed against related indicators, such as volume and price trends. The direction and magnitude of revisions are observed, but studies and analyses of revisions are not conducted. Quality assurance processes will be enhanced in future with the twinning project with Denmark.
Jordan	Prices	For the CPI: • Prices are edited in the field monthly by the CPI compilers. Comparisons between prices in the outlets within each region and between regions are conducted. In addition, the prices are compared with data from administrative sources; • Intermediate data on major activities, mainly in industry, are assessed against related indicators, such as volume and price trends; • Assessments of potential discrepancies of major intermediate data are done, and adjustments are made to remove the discrepancies. Consistency checks are performed against the PPI and the WPI. For the PPI: • Intermediate data on major activities, mainly in industry, are assessed against related indicators, such as volume and price trends; • PPI estimates are compared with CPI & WPI; • Assessment of potential discrepancies of major intermediate data is done, and adjustments are made to remove the discrepancies.
Administrative data		
Egypt	Merchandise trade	Computer validation checks and manual corrections are undertaken and range edits executed for all import and export transactions. Data are reconciled, as much as possible, with the ITRS data compiled by the Central Bank of Egypt for the BoPs. A mirror exercise is undertaken to compare data with overseas trading partners. Since the application of the General Trade System, discrepancies have diminished. Reasons for discrepancies are well known and are due to the different concepts and data sources used between the Central Bank (money flow) and the other administrations.
Egypt	External debt	Bilateral debt data are compared with Paris Club creditor country data. The coverage of debt securities, trade credits, loans, currency and deposits, and other debt liabilities are cross-checked against BIS, IMF, OECD, and World Dank data, whenever possible.

Country	Domain	Activity
Egypt	Government finance data	The assessment and validation of source data are undertaken by financial controllers in each budgetary agency and economic authority in accordance with the accounting law and regulations. Source data are subject to external audit. Coordination arrangements with the CBE are in place and reconciliations of financing to the monetary and debt data are regularly made. Discrepancies are reconciled regularly by the relevant task forces. Quality monitoring is conducted by contacting the data providers. Quality planning is currently in place as the fiscal reporting is in conformity with the concepts and definitions stipulated in the GFSM 2001. There is transparency and distinctions in the roles and responsibilities predetermined for each data provider department to avoid either duplication or inconsistencies in the fiscal data. Internal consistency exists among the data of the various relevant departments.
Qatar	Merchandise trade	The on-line electronic reporting system facilitates editing and checking of the responses. There are in-built validation checks as well to compare with data reported for the previous months. There is strong coordination between QCB and MDPS for supply and exchange of information. Consistency between BoP and national accounts data are always ensured. High-value transaction flows are usually confirmed with the QCB Financial Affairs Department, and with the General Comptroller.
Palestine	Merchandise trade	Validation techniques include: • Implementation of internal data checking procedures, mainly during the data entry process; • Mirror exercises with main trading partners to reduce discrepancies; • Use of national account supply and use tables to estimate for under coverage of smuggling and unrecorded trade; • Comparison of data with other relevant indicators such as National Accounts and Balance of Payments. Revisions are made when new data are received after initial publication of reports. New figures are highlighted to the users and new tables are published on PCBS website.
Palestine	Government finance statistics	• Data is checked and validated by the MoF and compared with the previous period. Also, cross-checks are performed for payables and receivables data to ensure their accuracy; • The MoF tries to address source data accuracy through direct contacts with reporting agencies.
Jordan	Merchandise trade	• Data are reconciled, to the extent possible with the international transactions reporting system (ITRS) data compiled by the Central Bank of Jordan for the balance of payments; • Mirror exercises are also done to compare the data with those of partner countries; • ASYCUDA is employed for the trade data processing system. The system includes automated validation checks, and also a valuation range edit check for all imports and exports transactions; • Studies of data revisions are conducted annually and are used to improve statistical processes.
Jordan	Government finance statistics	• The main validation of all government finance data is via the benchmarking of preliminary data to audited data for all budgetary agencies. Deviations between preliminary and final data are explained in the *General Government Finance Bulletin* and on the MoF's website;

Country	Domain	Activity
		• MoF and CBJ have formulated a joint committee, to ensure the observance of the rules of the budgetary classifications applied, and to coordinate with other relevant data of other institutions; • Comparison with previous years' data is carried out on the data reported. All categories of expenditure and revenue are compared. Direct contacts with counterparts of reporting entities are made; • Source data received by reporters are checked by the staff for consistency, compared to previously submitted data, and cross-checked between reporters having identical activities.

2. Use of a quality assessment framework

Recommended international practice calls for the development and use of an appropriate quality assessment framework for the systematic and ongoing review of the quality of each STS they disseminate – refer section Q.1 below.

As mentioned above, several of the pilot countries mentioned their use of the IMF's DQAF for the assessment of data quality processes undertaken in each of the STS domains. Tunisia and Oman pointed to the need to establish and use such a framework; however, even there the use of the IMF framework was mentioned. In Palestine, each publication disseminated by the PCBS contains a chapter about data quality which focuses on quality issues pertaining to the different stages of the compilation process.

SECTION J. AVAILABILITY OF STSs METADATA BY PILOT COUNTRIES

The necessity of providing methodological information (or metadata) with short-term statistics, outlining concepts, definitions and describing methods used in their collection, compilation, transformation, revision practices and dissemination, etc., is one of the UN *Fundamental Principles of Official Statistics* [UNSC 1994]. Guidelines and recommendations for the provision of metadata were provided both in the 2011 ESCWA publication, *Handbook on Statistical Metadata for the ESCWA Region* and the 2013 ESCWA study on short-term statistics in the Arab Region9.

This section analyses the availability of metadata for each of the STSs currently disseminated by the seven pilot countries on the basis of information provided during the review assessments conducted in 2015. The results from the review are summarized below in annex 11. This annex shows that all of the countries provide metadata for each of the indicators they disseminate, either in Arabic or English (or French), or both. Such metadata are made available either in paper publications or online via the Internet. Methodological information generally provided in these sources consists of summary metadata outlining data sources, definitions and compilation processes. Some countries also report the availability (on the Internet) of very detailed compilation sources and methods manuals for some of the indicators they disseminate, e.g. the 90 page manual for national accounts in Qatar.

As international statistical standards have been developed for global use in both developed and developing countries and countries with vastly different cultural, social, political and economic environments, the recommendations they contain are often broad in nature. For this reason some countries have developed more detailed guidelines and sources and methods manuals for some statistical domains which though consistent with international standards are often more detailed, specific and more attuned to the national environment.

Only a small number of instances were identified where metadata are either not available at all or are only made available at the request of users.

In terms of the availability of metadata that is structured on the basis of a template that is applied consistently across all of the STSs in the ESCWA questionnaire it would appear that such availability is restricted to metadata provided to the IMF in compliance to the country's subscription to either the SDDS or GDDS. Such metadata would satisfy the needs of most users, however not all of the STSs in the UN ESCWA questionnaire are within the scope of the SDDS and for the more limited scope GDDS, e.g. turnover for retail, turnover for industry by major division, import/export price indices.

What appears to be missing in the seven pilot countries with respect to metadata are:

- Detailed metadata that are compiled on the basis of a corporate metadata strategy applied across the organization;
- The absence of qualitative metadata/Quality Declarations (refer below) that would enable the user to properly assess the quality of the data in relation to their needs. Such metadata could, for example, provide explicit information on how national concepts differ from those in international standards, the main caveats, cautions and limitations of the data that may impact on the use of the data, etc.

Key recommendations for the preparation and dissemination of metadata and examples of best practice are provided below in section Q.1.

9 Available at http://css.escwa.org.lb/sd/documents/HandbookMetadata.pdf) and http://css.escwa.org.lb/sd/publications/STESPriorities.pdf.

SECTION K. MAIN DATA QUALITY ISSUES IDENTIFIED FOR SHORT-TERM STATISTICS IN PILOT COUNTRIES

This section identifies the main data quality issues for each of the short-term statistics listed in the UN ESCWA Secretariat assessment review questionnaire (refer annex 1) that are currently disseminated by the seven pilot countries. The issues were derived from the assessment review reports, supplemented where necessary with information previously provided by the countries in the context of their subscription to the IMF's SDDS or GDDS.

In addition to issues of frequency and timeliness discussed above in sections F and G above respectively there are a wide range of other data quality issues with respect to those STSs that are currently compiled and disseminated by the pilot countries. Apart from the non-availability of the remaining indicators the main data quality issues for existing indicators are:

- Absence of systematic and methodologically transparent estimates of the various components of the non-observed economy in estimates of GDP and its components;
- Non-availability of a timetable for the regular rebasing of a range of STS indices. Allied to this is the need to compile and introduce new weights for a number of indicators;
- Non-availability of seasonally adjusted STS indicators. Many of the pilot countries only disseminate unadjusted time series;
- Data quality issues with respect to some of the administrative data utilized by NSOs obtained from other agencies within the NSS which are used as inputs in the compilation of STSs. In addition to frequency and timeliness of their availability, other problems cited included an absence of methodological transparency, use of non-standard classifications and concepts by the source agencies.

As explained further below in sections O and Q, the underlying cause of these and other data quality issues is inadequate funding of statistical activities by central government administrations and a lack of awareness of policy-makers in key government ministries of the importance of reliable statistics in decision making and policy formulation. Also discussed below in part II is the importance of developing and implementing key statistical infrastructures such as quality assessment frameworks, metadata repositories and relevant IT tools.

1. Egypt

Short-term indicator	Data quality issue identified during assessment
National accounts	Estimates for quarterly GDP are obtained using the production and expenditure approaches. The income approach estimate is not compiled due to lack of data. Although GDP calculated using the production approach is of a higher importance to the different departments of the Ministry of Planning, the expenditure approach is also important. However, the current methods used for the compilation of GDP expenditure are linked to production methods, and hence are not truly independent of the production method.
	Unrecorded activity: No estimation is made for illegal activities. In the case of the informal economy, the annual estimation procedure for industries where these activities are prevalent usually takes into account the contribution of such activities to output/value added without having to make separate estimates. Crops grown on small holdings, especially fruits and vegetables, and short-term construction contractors, are the main activities in this sector. Areas where such informal activities may be underestimated are those of itinerant traders and food stalls. National accounts unit staff is making an effort to include informal/non observed/underground activities in GDP estimates, though many difficulties exist in ensuring full coverage since no surveys covering the informal sector are conducted.

Short-term indicator	Data quality issue identified during assessment
	Finding better measurements for estimating the informal sector has emerged as a key issue for national accounts. Efforts to improve the coverage have been made using some data sources such as the economic census.
	The national accounts are moving towards the adoption of the concepts and definitions of SNA 2008.
	QNA data are not seasonally adjusted.
Total production index	There is no regular schedule for re-basing the index, but it is expected to be rebased every five years. However, the current base year is 2002=100. The manufacturing index is a Laspeyres index weighted by value added weights obtained from the 2002 annual survey for the private sector and the 2001/02 survey for the public sector.
	Alignment of the value of weights and base period: If a company is bankrupt, or has problems providing monthly production values, it is removed from the sample and replaced by another company with similar output volume and the same economic activity classification.
	The data are not seasonally adjusted.
	To improve the estimates there is a need to produce more indices such as for services and agriculture.
Manufacturing index by major Division	In January 2013, the index was updated to cover 600 companies representing about 80% of total industrial production with the same base year 2006/2007. However, CAPMAS has not yet completed the compilation of the index after this update.
	If a company is bankrupt, or has problems in supplying monthly production values, it is removed from the sample and replaced by another one with similar output volume and the same economic activity classification
	The data are not seasonally adjusted.
	There is a delay in obtaining data from some sources. Considerable effort is being made by CAPMAS staff to receive them on time, otherwise the data is estimated.
Commodity production	*Minerals:* Currently produced annually (v. recommended monthly availability). Quantity data always have problems, though the price data are more accurate. However, the data are verified and the quantity data are corrected.
	Agriculture: Currently produced annually (v. recommended monthly availability). The data are produced by the MALR but CAPMAS retabulates them by adding some aggregations and percentages. There is a delay in receiving data from MALR.
	Tourism: Monthly data are not seasonally adjusted. Tourism indicators are produced on a monthly and semi-annual basis. However, some delays may occur if data are not received on time from the sources.
	Car and commercial vehicle registrations: Currently produced annually (v. recommended monthly availability). This indicator needs to be more detailed. New software is needed to assist in the collection of the data from the administrative records of the general administration of traffic.
Consumer price index	CPI for urban areas is published monthly while for rural areas it is published bimonthly. National CPI for the whole country is estimated bimonthly. Time period of current weights: Currently based on the 2008/2009 household expenditure patterns. Weighting for item specifications may be updated at any time.
	Data are not seasonally adjusted.
	The current sample of rental units used in the CPI does not include a sufficient number of units under the new rent law as compared with the number units subjected to the old rent law. The new rent law allows market rents to be charged for housing units. The old

Short-term indicator	Data quality issue identified during assessment
	rent law represents a unique case in which the rent rate is fixed for the lifetime of the renter. Therefore, the sample of rental units needs to be augmented to include a larger number of rental units under the new rent law so that the index for actual rents paid is more accurate and reflects real changes in market rent. CAPMAS is in the process of developing a new more representative sample of rental units.
Producer price index	*Time period of current weights:* Currently based on 2004/2005, but weighting for item specifications may be updated at any time.
	Data are not seasonally adjusted.
	CAPMAS uses the *International Standard Industrial Classification (ISIC), Revision 4*, for the compilation of indices by industry and the Brussels Nomenclature to compile indices by stage of processing and the degree of use. According to internationally recognized standards, the PPI should be compiled both by economic activity and by product reflecting recommendations made by the IMF during its mission to Egypt in January 2011. CAPMAS is in the process of updating the PPI for Egypt. Using data collected from establishments on the total value of production at basic prices. CAPMAS is also trying to expand index coverage to include construction but has some problems with data sources.
Import and export price indices	Are produced annually (v. recommendation for monthly indices). CAPMAS is in the process of recompiling this indicator. CAPMAS wish to use best practices from other countries to reproduce the import and export indices and solve the problem of inaccurate quantity data for foreign trade. Import and export indices are needed for better GDP estimates, but have been discontinued since 2007 due to a change in the foreign trade system from a private to a general system (difficulties with the data provided by Customs). The Customs Authority only cares for taxable items, and thus non-taxable import and export items are not well documented in terms of prices. In addition, the quantitative data are inaccurate and are not recorded most of the time. CAPMAS is implementing procedures to cooperate with Customs to improve the quality of quantity data through improved data editing, etc.
Labour market indicators	*LFS:* The sample size has been increased by 10% to account for households that could not be interviewed for any reason. Therefore, the sample size for each quarter was increased from about 21 000 (the originally designed sample size) to 23 000 households. Non-responding households are not replaced. The methodology used in conducting this survey needs to be reviewed (from the sampling stage to the results stage). Therefore, technical assistance is needed in the sampling of the labour market indicators and the analysis of the panel surveys studies as well as the seasonal adjustment methods in the labour market indicators and the income, expenditure and consumption household survey.
	Wages: Are produced annually (v. recommendation for quarterly data). The indicators (weekly wage rate and hours of work) are compiled on an annual basis, but there is interest to start producing them on a quarterly basis as per SDDS requirements.
External sector indicators	*Merchandise trade:* There are problems with the data provided by the Customs Authority as they only scrutinize items where custom tax applies. Quantity data are inaccurate and not recorded by the Customs Authority most of the time.
	Balance of payments: Based on BPM5 guidelines and recommendations. Services coverage appears to be narrow. Trade credits provided by Egyptian residents are not included.
	International investment position: Also based on BPM5.
Financial sector indicators	*Depository Corporation's Survey: Classifications:* The sectorization adopted for monetary statistics is broadly in line with the IMF's *MFSM*. The distinction between the non-resident and resident sectors is generally based on the residency criterion as

Short-term indicator	Data quality issue identified during assessment
	described in *BPM5*. The domestic economy resident sector is divided into four sub-sectors, namely, banks, government, public and private business, and households. This subdivision does not provide separate identification of other financial corporation's (OFCs) sub-sector. In the government sub-sector, central government and local government are not separately identified, as local government authority for revenue collection and expenditure decisions is not sufficient for them to be deemed independent.
	Central Bank Survey: Classifications: In the government sub-sector, the central and local government are not separately identified as local government authority for revenue collection and expenditure decisions is not sufficient for them to be deemed independent.
	Financial statistics: There is a delay in receiving data from the sources, which affects the time of release of the bulletins.
	General government operations: The economic authorities (NIB, SIF) use the accounting accrual basis, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate and present the data in a unified form.
	Central government operations: The economic authorities (NIB, SIF) use the accounting accrual basis, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate and present the data in a unified form.
	Central government debt: The economic authorities (NIB, SIF) use the accounting accrual basis, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form.
Household sector indicators	This set contains household disposable income, household savings and household debts. The Household Income, Expenditure and Consumption Survey (HIECS) is the main source for these indicators. Data on household disposable income and saving are available, but data on household debt is incomplete.
Non-financial corporations sector indicators	There is a delay in receiving data from the companies, especially for the private sector, where the balance sheets and financial accounts should be received three months after the end of the reference year, but some companies delay it up to seven or eight months.

2. Tunisia

Short-term indicator	Data quality issue identified during assessment
National accounts	Accounts are currently based on SNA 1993. The balance of the GDP by expenditure (final consumption, capital formation …) is not yet available at the quarterly level. The NSO hopes to develop quarterly accounts with this approach and migrate to SNA 2008. GDP expenditure estimates are not compiled because of lack of information sources and methodologies.
	The provision of technical assistance could speed migration to the current national accounts standard.
	There is an urgent need to establish an assessment framework for data quality; to establish a quarterly GDP balance; and to establish official rules of data exchange. Note: Tunisian accountants use ERETES software, EUROSTAT shareware, to make and disseminate annual national accounts. Technical assistance from INSEE allows the staff to be able to use the tool conveniently.
Industrial Production Index	Index is currently based on the year 2000 and will go to the 2010 base year during 2015. The NSO recommends buying iPads to collect information. The team also recommends the use of a powerful machine in order to reduce the production time for the index. Persons in charge of calculating the IPI wish to reduce the deadlines by sending and receiving digital questionnaires via the web. With this, time will be saved and errors will be avoided when entering data. They also wish to strengthen relationships with sampled companies.

Short-term indicator	Data quality issue identified during assessment
	The IPI is prepared monthly and published 45 days after the end of the reference month. This delay is essentially due to delays in obtaining survey data. As a result, QNAs, which must be published 45 days after the end of the quarter, use only the IPI for the first two months of the quarter.
Turnover index for retail trade	Although annual turnover is compiled by the NSO through its annual survey, this information is not used and therefore not published.
Consumer price index	The base year of this index changes every five years using household consumption survey data. Usually, two years are required after the survey to change the index base year. However, as a result of the 2011 revolution, the consumption survey of 2010 will come into effect in the calculation of the CPI only in 2015.
	During the UN ESCWA Secretariat mission to Tunisia, the persons in charge of calculating the indices expressed their wish to use tablets and new technologies for price collection. These will save time for entering data and guarantee the least errors in manipulating statistics.
Producer price index	Is based on the year 2000 and its revision to the 2010 base year will be made in 2015.
	A high priority change would be to introduce agricultural products into the product groups. This subject was addressed by an INSEE expert who during his mission to the NSO had made certain calculations as a test, with the collaboration of the Ministry of Agriculture. Further technical assistance and an exchange of experiences were requested by the NSO for this domain.
Import/export price indices	The NSO calculates a monthly Paasche index of foreign trade prices (imports and exports) with a 2000 base year. The 2010 base year will be introduced in 2015.
	The foreign trade service wishes to obtain an Arabic version of the Harmonized System's classification with the appropriate ISIC correspondence tables.
Labour force indicators	The persons in charge of the employment survey in the NSO would like to introduce the new concepts shown in October 2013 ILO ICLS that make the distinction between the work concept and the employment concept. They would like also to develop employment analyses at the small area level. This requires the adoption of a range of statistical techniques and data series modeling. In this case and concerning these two points, the persons in charge recommend technical assistance from an expert in these domains who has already used these methodologies.
	The NSO publishes data at the level of large regions in Tunisia. The persons in charge wish to have technical assistance to aggregate the employment indicators at the small area.
External sector indicators	The Statistics Division of the Central Bank of Tunisia has been newly created. There is some lack of staff and equipment. Training on certain indicators is essential.
Merchandise trade	Imports and exports of goods and services are one of the short-term statistics shortlisted for monitoring. In Tunisia, foreign trade official statistics (imports and exports) of goods are compiled and published by the NSO. The Central Bank, through the transfers of payments to foreign countries, calculates monthly imports and exports of services. The Central Bank receives foreign trade data for goods prepared by the NSO, and publishes imports and the exports of goods and services in the balance of payments. Staff responsible for the compilation of the balance of payments recommend the disaggregation of the indicator related to imports and exports of goods and services in two parts, first for goods and the other for services, as each component indicator is compiled by a different institution (NSO for goods and the CBT for services).
External debt	Foreign debt according to currency type and sector are edited annually. Quarterly information exists but not published. The methodology of elaboration of quarterly data is not yet mastered and technical assistance is sought.

Short-term indicator	Data quality issue identified during assessment
	Training is essential to develop a methodology for elaborating quarterly external debt data by currency and country.
Central bank indicators	The Tunisian Central Bank (CBT) wish to receive technical assistance to elaborate and edit some indicators quarterly which, at the moment, are published yearly, for lack of methodology. It also wishes to receive technical assistance to compile balance of payments statistics in line with the 6th edition of the IMF BPM.
Residential property price index	The price index of the real estate market was the object of a study by a committee. All works are realized and finalized but the results are not yet published. The CBT wish to have an expert opinion in this case to confirm the methodology and the obtained results.
General government sector indicators	Indicators concerning the government are compiled by the Ministry of Finance. Revenue, expenses, net operating balance, net lending/net borrowing and gross debt are calculated and published monthly. On the other hand, net acquisition of non-financial assets is calculated and not published actually. Technical assistance is possibly needed.
	The persons in charge also mentioned the lack of suitable IT equipment.
Financial market indicators	Nominal and real effective exchange rates exist but are not published. The executives in the central bank hope to obtain technical assistance for these indicators.

3. Palestine

Short-term indicator	Data quality issue identified during assessment
National accounts	PCBS lacks the capacity to compile GDP using the income approach due to non-availability of source data. For instance, both compensation of employees for agriculture and informal sectors are not available. In addition, it is not possible to estimate the operating surplus and mixed income from available sources, and this leads to their being estimated as residuals.
	Any expansion in the national accounts program needs more staff.
	No seasonal adjustments are available
Production and turnover	For the production index, construction and turnover indices for retail trade and for industry, PCBS, with the aid of the Technical Assistance mission, is developing a plan to start compiling them. Current limitations to the compilation of these indices are: • Lack of training on international standards for their compilation; • Lack of knowledge on the necessary coordination with other sources for the requirements of compilation; • Lack of funding for the implementation of those activities, and for the training required.
	Seasonally adjusted data are not available
Import/export price indices	Several constraints exist when compiling export and import price indices: • Lack of quantities in most of the Value Added Tax vouchers. VAT vouchers represent the large part of both imports and exports with Israel (approximately 48% of imports, and 80% of exports); • Traders are not committed to provide the quantities although quantities are one of the variables in VAT template.
Labour force indicators	No seasonal adjustments are available.
Merchandise trade statistics	IMTS is used with some specific comments due to the Palestinian situation. Palestine does not have authority for the borders. This lack of control makes it impossible to capture data at the borders.

Short-term indicator	Data quality issue identified during assessment
	The data excludes smuggling and unrecorded trade. The under-coverage of data is estimated using supply and use tables techniques from the national accounts.
	No seasonal adjustments are being compiled.
International investment position	The only exception to coverage is agricultural holdings by non-residents. However, PCBS is working on developing a data source from local government to obtain these data. Data are recorded on an accrual basis. However, those related to the household sector are recorded on a cash basis.
	No seasonal adjustments are available.
Official reserve assets	No seasonal adjustments are available.
External debt	Professional training is required, especially for new staff.
General government sector indicators	The data from local governments are not computerized.
	The GFS covers indicators for the central government on quarterly basis, and for the general government based on annual data. However, they are currently trying to estimate local government data on a quarterly basis in order to provide indicators for the general government on a quarterly basis.
	No coordination and data sharing experience procedures related to government data are described in official documents. This needs to be improved among data producing agencies to ensure a smoother and timely data flow, mainly with local government.
	Capacity building has to be enhanced for local government through training activities. However, local government financing problems prevent them from enhancing the capacities of their employees.
Household sector indicators	PCBS has limited capacity to produce household accounts such as disposable income, savings and debt on a quarterly basis due to the following constraints: • Data sources have limited capacity to provide the required information about the household accounts; • Limited information is available to compile the indicators on a quarterly basis since the Palestinian Expenditure and Consumption Survey (PECS) is planned to be conducted only every three years; • Data on net property income is available from balance of payments statistics only on an annual basis. Household saving estimates are not available.
Financial market indicators	PMA is responsible for compiling interest rate and exchange rates indicators, while the Palestinian Exchange (PEX) produces stock market indicators. However, nominal and real effective exchange rates are not produced since Palestine does not have its own national currency and therefore cannot determine the exchange or interest rates.
Real estate market indicators	These indicators are not compiled within the NSS, though responsibility for compiling them falls within PCBS's responsibilities. However, PCBS does not have the capacity to produce those indicators due to the lack of data sources needed to build a representative sample and to derive the weights. Building the capacity of current and new staff is essential to be able to produce these indicators. Staff members should participate in technical missions and consider other countries' best practices and experiences on this issue, while keeping in mind the difficulties of compilation and the fact that few countries currently produce them.
Economic sentiment	PMA recently started compiling the general business cycle indicator, but it is still not representative of all composite business cycle indicators. The indicators are not compiled due to the lack of financial resources to perform the surveys, and the lack of the necessary tools to ensure the needed coordination between both PCBS and PMA. Both PCBS and PMA stressed the importance of compiling these indicators and considered the topic a national priority.

Short-term indicator	Data quality issue identified during assessment
Coordination issues	PCBS needs to share experiences with other agencies in the NSS to ensure that all statistical units in the ministries abide with the Bureau's definitions, concepts and internationally recommended classifications.
Staff capacity and skills	As in all statistical offices in developing economies, PCBS faces significant funding obstacles. In addition, the political situation in the country is another major obstacle for PCBS. PCBS is mostly funded by the Palestinian Authority (PA) budget, in addition to funds provided by donors. Funding obstacles prevent the increase in staff members necessary for the expansion of the statistical process. New staff joining the PCBS requires a clear national capacity building programme. There is therefore a need to strengthen the PCBS training centre to ensure that new staff members in the PCBS and in the statistical units of the ministries (including MoF) have the necessary basic skills to collect compile and disseminate data.
Statistical infrastructure	PCBS is not the sole producer of statistics in Palestine. The problem with statistics is that much more is produced than used because they are supply rather than demand driven. The producers tend to listen more to international recommendations than to national users. An efficient NSS needs a systematic users/producers communication infrastructure to plan future data collection.
	One of the challenges facing PCBS is building and strengthening the NSS by bridging the gap between producers and users of data.
	These challenges present themselves in the face of a funding system heavily dependent on donor support.
	For this purpose, one of the main strategic objectives in the 2014-2018 NSDS is to reduce some costs by using administrative records as a data source of survey data. But this goal is years away and development resources are necessary. As for administrative data used to reduce the dependence on surveys, PCBS must ensure that appropriate measures are taken by the relevant agencies during their collection to ensure their quality.
Editing procedures and infrastructure	Current editing processes take a significant amount of time, and sometimes affect timeliness. This can be overcome by modernizing statistical data editing techniques used when processing raw data. Good practices currently used by other statistical offices must also be identified.

4. Qatar

Short-term indicator	Data quality issue identified during assessment
National accounts	Illegal activities are excluded.
	Quarterly GDP data series are not yet seasonally adjusted. Users are, however, cautioned not to compare current data with those of the previous quarter, but to compare with data relating to the corresponding quarter of the previous year. *IT support*. There is a need to acquire specialized time series oriented data base software and suitable software to enable the use of recommended benchmarking and seasonal adjustment techniques.
	Although quality is at the core of all stage of processing, there isn't an established quality assurance framework.
	Absence of a statistical business register. The establishment and maintenance of a statistical business register is an essential tool for the integration of statistics that are required for the compilation national accounts STSs. Information gathered at the April-May 2015 Mini-census of Population, Housing and Establishments will be used to update the list of establishments, used as survey frame.

Short-term indicator	Data quality issue identified during assessment
	However, the effectiveness of capacity building is hampered because of the high rate of staff turnover. The staff transfer to more lucrative jobs after acquiring practical knowledge on national accounting.
	GDP by expenditure at constant prices are not compiled because of the non-availability of export and import price indices.
	Flash estimates of quarterly GDP estimates are not a priority and are not produced mainly because of the lack of monthly indicators on volume changes. Quarterly GDP by income is not produced mainly because of difficulties in identifying data sources, lack on quarterly information on operating surplus and compensation of employees. Quarterly sector accounts are not produced mainly because of inadequate data and insufficient staff. There is also need for reference material on methodology.
Production and turnover indicators	High priority indicators not produced: The compilation of these indices will require the conduct of new surveys. Since all the indices are new, it would help the compilers to learn from the experience of other ESCWA Member countries already compiling such indices. Staff officers involved in the compilation of these indices also need to be familiarized with the guidelines provided in relevant UNSD and OECD manuals. In-country mission needed to review the methodology under development for the construction of a quarterly production index for the industrial sector (work currently in progress). Many of the companies also respond to the other surveys conducted by the MDPS, there is need to harmonize and streamline data collection activities in order to reduce respondent form-filling burden.
Consumer price index	Population living in institutions (hospitals, prisons) and all foreign workers living in large gatherings (labour camps) are not covered.
	Seasonal adjustments are not carried out.
Producer price index	Seasonal adjustments are not carried out.
	Need to review the PPI questionnaire to ensure that it collects the actual transaction price of products actually sold to customers and that the transactions are specified in enough detail so that representative products are selected and the same transactions are surveyed in consecutive periods. Also need to ensure consistency with national accounts data, especially while computing the weights at industry/product group (ISIC Rev 3) hierarchical levels.
Import and export price indices	Regional training workshop plus secondment to a statistical office with experience in the compilation of import price indices. On-the-job training and review of work in progress on the development of methodology for the computation of the export price index (in coordination with GCC Stat). Work on these indices has started with technical assistance from GCC Stat. MDPS would welcome any arrangement to learn from the experiences of other countries in the region in order to build confidence and improve the methodology for the compilation of the export and import price indices. A study tour to learn from other peers would also help in the identification of common problems and solutions. Note: An import price index was computed, around five years ago, using data received from the Customs Department. The index showed very irregular movements because of unit value bias. It is no longer produced. There is a need to learn from the experiences of other countries.
Labour force indicators	Data on employment by activity is not produced because of the relatively small sample size. Employment by activity is compiled and disseminated only on an annual basis.

Short-term indicator	Data quality issue identified during assessment
	There is need for additional funding to increase the sample size that would enable estimation of quarterly employment by activity.
	Seasonal adjustments are not carried out.
External sector indicators	Quarterly IIP and quarterly external debt are currently not available because of lack of information on external liabilities of privately owned companies. Steps are being taken to fill this data gap.

5. Oman

Short-term indicator	Data quality issue identified during assessment
National accounts	Flash estimates of quarterly GDP were estimated in the past but are not considered a priority. They are currently not produced mainly because of a lack of monthly indicators on volume changes.
	Quarterly GDP by income is not produced mainly because of difficulties in identifying data sources, lack of quarterly information on operating surplus and compensation of employees.
	Quarterly sector accounts are not produced mainly because of inadequate data and insufficient staff.
	Not seasonally adjusted.
	Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination.
Turnover index for retail trade	Turnover index for retail trade by major division is a priority index as it is needed for national accounts at constant prices.
Producer price index	Lack of well-qualified computerized system for producing this index. The index calculation still undertaken in Excel files.
	Not seasonally adjusted.
Labour market indicators	The main reason for not producing and disseminating data on employment by economic activity in each quarter is data quality. The sample size used for the labour force sample survey which provides the source data is too small and does not enable the computation of detailed data by activity.
Merchandise trade	Difficulties in obtaining some services data directly from its main sources. Delays from some primary sources in providing data on time.
	Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. In addition, the CBO in cooperation with other institutions should expand data collections to address existing gaps.
External debt	Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. In addition, the CBO in cooperation with other institutions should expand data collections to address existing gaps.
General government sector indicators	The MoF compiles data on gross debt but these data are not disseminated. The reason is coverage. All the indicators would be produced and published after the full implementation of GFSM 2001 concepts and classifications. Technical assistance is being sought from the IMF Statistics Department.

Short-term indicator	Data quality issue identified during assessment
Residential property price index	Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. In addition, the NCSI in cooperation with other institutions should expand data collections to address existing gaps.

6. Jordan

Short-term indicator	Data quality issue identified during assessment
National accounts	The national accounts team is now going to update to a new base year (2010) instead of 1994 for national accounts and from ISIC 3 to 4 with CBC 2.
	Data are not seasonally adjusted. Practical training on seasonal adjustment techniques is needed.
Industrial production index	IPI rely on census data which are available every 10 years, which is why it takes longer time to revise the base year. Currently 1990=100.
	Data are not seasonally adjusted.
Production and turnover	All other indicators are not produced in the Jordanian NSS, due to difficulties in identifying data source(s), insufficient human, financial and IT resources, methodological issues, is not a priority. Therefore, capacity building is needed to produce and disseminate these indicators in accordance with international standards. In fact, the Department of Statistics (DoS) are mainly very interested in producing a construction index.
Import/export price indices	The export/import price indices (XMPI) were compiled by Central Bank of Jordan (CBJ) in a simple way without following any relevant international standards due to the limited capacity. The staff of DOS and CBJ are very interested in compiling export/import price indices of good quality in which they need capacity building/training to produce these indicators in accordance with international standards.
	No seasonally adjusted data available for any price indices.
Labour market indicators	Data are not seasonally adjusted.
International investment position	Central Bank of Jordan has the capacity to compile and disseminate IIP on a quarterly basis. However, BoP staff needs the FDI survey to be updated on a regular basis to update the data for both BoP & IIP.
External debt	External debt statistics are compiled on a quarterly basis with cooperation between the Ministry of Finance (MoF) and CBJ according to creditor, currency, maturity, financing Source. Need to compile external debt according to residency.
Financial sector indicators	Financial corporate debt and profit in Jordan only covers banks (other intermediaries and insurance companies are not covered). In addition to the balance sheet, asset and liabilities are not produced due to the limited resources.
General government sector indicators	Central government operations and central government debt are produced and disseminated on a monthly basis, while general government operations are on a yearly basis. The MoF team is working to upgrade to GFSM 20014 and requires capacity building.
Household sector indicators	DOS has limited capacity (difficulties in identifying data source(s), insufficient human, financial and IT resources, methodological issues). Therefore, capacity building is needed to produce and disseminate some other household indicators such as household debt and household saving according to relevant international standards.
Access to administrative data	Administrative data do not provide the requested details and information necessary for compiling some indicators.
Seasonal adjustment	Within the NSS, no seasonal adjustments for data exist.

Short-term indicator	Data quality issue identified during assessment
Data dissemination	A comprehensive integrated dissemination system is required to compile and update databases according to effective and well design procedures.
	Data published on the website of some agencies are not time-referenced, nor is it made clear when the next update will take place.
	Many data-producing agencies do not have metadata for their economic indicators in their websites to satisfy user needs.

7. Lebanon

Short-term indicator	Data quality issue identified during assessment
National accounts	*Flash estimates:* The Central Administration of Statistics (CAS) undertook this exercise once in 2012 and didn't repeat it again since then. Currently, due to delays in getting basic data on time from other government agencies and given the lack of periodic surveys, Flash gross domestic product (GDP) estimates are not on the CAS agenda for the near future. *Income GDP:* Currently data to produce an income estimate of GDP are not available. *Other issues:* • Administrative and business survey data is needed to be able to estimate GDP more accurately; • Technical assistance is needed to improve FISIM estimation; • There is an urgent need to construct a new Lebanese Business Register that will permit CAS to rely less on the Ministry of Finance (MOF) register. The register will allow CAS to conduct business surveys by itself and improve the quality of GDP estimation. In the current situation, MoF does not share the taxpayer database with CAS for confidentiality reasons; • IT infrastructure needs to be updated to take into consideration accounts improvements in the future; • Shortage of national accounts staff whenever an additional new data source is available. However, the rigidity in the legislation doesn't permit CAS to recruit temporary external specialized staff for specific tasks. This increases the workload of existing staff.
Production and turnover indices	CAS hasn't conducted an Establishment census since 2004. This census is used as a sample frame for all economic surveys undertaken. A new establishment census should be conducted as it forms the core of a business register that can be used in the future.
New orders for construction	Data was previously collected from the Ministry of Public Works until 2007. A survey on the execution of the work permits was done in 2002. Results were not published because of the high non-response rate. Currently, data is not collected and stored on CAS databases. There are no plans to revitalize this project in the future.
Agricultural products	Currently not compiled. The Ministry of Agriculture have published agriculture production annually since 1997. Production estimation stopped in 2010 because of lack of resources. The Ministry is currently planning to collect annual data on agriculture production for the years 2014 and 2015 with the cooperation of FAO. Results will probably be published in the second quarter of 2016. No methodological notes are available to describe the data collection and compilation process.
New car registrations	New cars registrations and sales are produced by the Lebanese association of car dealers and not by CAS.

Short-term indicator	Data quality issue identified during assessment
Tourist arrivals	Data on arrivals and departures are collected from the different entry points of Lebanon by the Ministry of Interior and shared with CAS at the aggregate level. In these statistics no differentiation is made between tourists and non-tourists.
Producer price indices	CAS is currently preparing to launch for the first time a PPI covering the whole Lebanese territory with the assistance of the IMF. Data collection will be done on quarterly basis but the PPI publication will be monthly. No preview date is available for launching this indicator. CAS is considering using the methodology described in the Producer Price Index Manual: Theory and Practice 2004 published by IMF.
Labour force indicators	In the current situation there is a need for financial IT and human resources to implement an LFS on a regular basis (quarterly or at least twice a year). There is a need also for a commitment from the government to produce labor indicators through regular surveys funded from the government budget. The labor force surveys shouldn't be conducted solely on an ad hoc basis, relying only on donors.
Merchandise trade and trade in services	Validity and quality control checks made by Customs on input data includes: exhaustiveness checking of declarations, validity checks (validity of product or country codes…), and credibility checks. However, regarding output data, Customs doesn't check data on the basis of historical data, or use outlier detection methods, or external sources (fiscal data, mirror statistics…). Hence, there is no available average on erroneous data at the levels of total number of declarations or the total value of trade. The Central Bank wishes to improve external trade statistics to include freight & insurance costs in import statistics based on business surveys, tourist surveys, etc., for a better estimation of travel services, improve data reported from General security. There are some coordination issues between the three institutions responsible for the compilation of the external trade statistics which affects the data validation process and quality assurance techniques currently in place. CAS is unable to fulfil its mission in compiling and disseminating external trade statistics due to the lack of resources (human and financial) and coordination difficulties with Customs. The coordination problems between Customs, CAS and the Central Bank affect *cif* and *fob* calculations.
International investment position (IIP)	The non-existence of a business register and coordination difficulties with Customs makes it difficult to conduct surveys on FDI and importer and exporters of business services.
General government statistics indicators	• Though classification of accounts is based on GFS 2001, accounting is based for disseminated STSs on a cash basis; • A standardized methodology is needed to keep compilation consistent. This however also relates to lack of consistency in the provision of data, and time delays in government related transactions (from stakeholders); • Accurate statistical compilation and dissemination are priorities for the Ministry of Finance, internally for policy analysis and formulation and from a wider perspective for transparency reasons given the sensitivity of MoF's role in the government; • Standardization of procedures would help maintain methodologies, also given that procedures to our knowledge are passed down by practice, risking delays in periods where knowledge is transferred; • Surveys for a better estimation of travel services, improve data reported from General security.

PART II

PRIORITY SHORT-TERM STATISTICS IN PILOT COUNTRIES

Introduction

Part II of the *Regional Guidelines* discusses the fifteen priority short-term statistics identified by the seven pilot countries. It defines each of the priority indicators and then describes their policy relevance and statistical framework.

The priority indicators provide a microcosm of the main data quality issues for many of the 67 short-term statistics listed in the UN ESCWA Secretariat assessment review questionnaire. Work required and initiatives to be undertaken by the national statistical agencies of these countries and other countries in the Arab Region to further improve the availability, quality and methodological transparency of the priority indicators is also relevant for similar improvements in the more comprehensive list of STSs.

In this context, following the review of the development needs identified by the seven pilot countries for the priority STSs, Part II then provides:

- Recommendations for the key institutional issues identified by the pilot countries, together with links to examples of recommended practices for these issues developed by the UN and national statistical agencies;
- Key recommendations for improvement of the frequency, timeliness, use of validation methodologies and metadata availability, as well as on other issues such as the use of various data sources, compilation methodologies, etc., derived from key international statistical standards, together with links to recommended practices by countries in the Arab Region and in other regions around the globe.

SECTION L. IDENTIFICATION OF STS PRIORITIES IN PILOT COUNTRIES

This section outlines a subset of high priority short-term statistics identified by each of the seven pilot countries based on the detailed country assessment reports prepared in 2014 and 2015. The priority indicators identified by each country are provided below in table 8. Although there are differences between the pilot countries in the mix of key macroeconomic indicators they deem to be of high priority, there is sufficient overlap to identify twelve relatively common high priority indicators, namely:

- Flash estimates of GDP;
- GDP by production;
- GDP by expenditure;
- GDP by income;
- Producer price index;
- Import price index;
- Export price index;
- Production index for industry by major division;
- Turnover index for industry by major division;
- Turnover index for retail trade by major division;
- Production index for construction;
- Business and Consumer confidence indicators.

In addition to these indicators, a further three indicators are deemed to be of sufficient priority to also include them in the list priority STSs. These were:

- Employment by activity;
- Household debt;
- Residential property price index.

Table 8. High priority short-term statistics identified by pilot countries

Egypt	Tunisia	Palestine	Qatar	Oman	Jordan	Lebanon
GDP by production/ income/expen diture and Flash GDP	GDP by production/ income/expen diture and Flash GDP	Turnover index for retail trade by major division	GDP by production/ income/expe nditure and Flash GDP	GDP by production/ income and flash GDP	GDP by production/ income/expe nditure and Flash GDP	Production index for industry by major division
Import and Export price indices	Turnover index of industry by major division	Production index for construction	Producer price index	International Investment Position	Import and Export price indices	Import and Export price indices
Turnover index of industry by major division	Turnover index for retail trade by major division	Turnover index for industry by major division	Import and Export price indices	External Debt	Production index for construction	GDP by production/ income and flash GDP
Production index for industry by major division	Business and Consumer confidence indicators	Turnover index for other services by major division	Turnover index of industry by	General Government Gross Debt	Business and Consumer confidence indicators	Producer price index

Egypt	Tunisia	Palestine	Qatar	Oman	Jordan	Lebanon
		(excluding financial services and non-commercial services)	major division			
Turnover index for retail trade by major division	Residential property price index	New orders index for industry by major ISIC division (for those that work on order)	Production index for industry by major division	Import and Export price indices	Turnover index for industry	Production index for construction
Production index for construction		New orders index for construction (building permits or housing starts)	Turnover index for retail trade by major division	Business and Consumer confidence indicators	Turnover index for retail trade	
Business and Consumer confidence indicators		Household debt	Production index for construction	Turnover index for Retail trade	Household debt	
Employment by activity		Non-financial corporate profits	Business and Consumer confidence indicators		Residential property price index	
Household debt		Non-financial corporate debt	Employment by activity			
Residential property price index		Residential property price index	Household debt			
Services index		New house sales	Residential property price index			
		Existing house sales				
		Business and Consumer confidence indicators				

Table 9 below outlines which of the 15 priority indicators identified above are also regarded as national priorities by each of the pilot countries.

Table 9. Pilot countries who viewed priority STSs as a national priority

Priority indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
GDP by production/income/ expenditure and Flash Estimate	x	x	x		x	x	x
Producer price index			x				x
Import and Export price indices	x		x		x	x	x
Turnover index of industry by major division	x	x	x	x	x		
Production index for industry by major division	x		x				x
Turnover index for retail trade by major division	x	x	x	x	x	x	
Production index for construction	x		x	x	x		x
Business and Consumer confidence indicators	x	x	x	x	x	x	
Other priority indicators							
Employment by activity	x		x				
Household debt	x		x	x	x		
Residential property price index	x	x	x	x	x		

SECTION M. DEFINITION OF PRIORITY SHORT-TERM STATISTICS

Brief definitions of the priority STSs identified for the seven pilot countries are outlined below. These were derived directly from the UNSD publication, *Data Template and Metadata for Short-term Statistics* [UNSD 2015c]. Definitions for the other short-term statistics in the UN ESCWA questionnaire derived from the same source are available in annex 13 below. Most of these definitions are outlined in international statistical guidelines and recommendations available in *The Methodological Publications in Statistics* website created by the United Nations Statistical Division (UNSD) at the request of the United Nations Statistical Commission (UNSC) in 1999. The website contains statistical standards (including classifications) across all statistical domains that have been developed by international organizations, in addition to those under development and planned. The website database is updated more or less annually and all international organizations are requested to provide the required information. As mentioned above, almost all of these standards are available online[10], and a limited number are available in Arabic.

Priority indicator	**Definition [Sources: UNSD 2015c, ESCWA 2013]**
GDP by production/income/expenditure and Flash 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. 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. 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. The Minimum Requirement Data Set (MRDS) should be used as a guideline for the breakdown of the QNA.
Producer price index	A producer price index (PPI) 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 The PPI may include all domestic goods- and service-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, and fishing; mining; manufacturing; and public utilities.

[10] Refer http://unstats.un.org/unsd/progwork/. International organizations contributing to the database include: Commonwealth of Independent States, Economic Commission for Europe, Eurostat, Food and Agriculture Organization of the United Nations, IMF, International Civil Aviation Organization, International Labour Organization, OECD, UNESCO, United Nations City Groups, Universal Postal Union, UNSD, World Bank, World Health Organization, World Tourism Organization.

Priority indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
	The services sectors that are in scope for a PPI varies significantly between countries. Some countries are interested in creating a corporate services price index, restricting 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.
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).
Export price index	An export price index measure 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).
Turnover index of industry by major division	The turnover index for industry shows changes over time in the activity of industries in value and volume[11]. 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).
Production index for industry by major division	The industrial production index (IPI) 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). Value added is used in theory as the basic construct of the indicator for different branches of industry to prevent double counting, as the inputs obtained by one branch from another must be deducted from its gross output. In practice, however, it is difficult to collect value-added data on a monthly basis. Most statistical institutes therefore derive monthly production data from other sources including deflated turnover, physical production data, labour input, intermediate consumption of raw materials and energy etc. The industrial production index is widely used as a short-term statistic in its own right because of the impact that fluctuations in the level of industrial activity have on the remainder of the economy.
Turnover index for retail trade by major division	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 statistic 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).
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.

11 The UNSD Data Template draws a conceptual distinction between an industry turnover volume index and the index of industrial production (IIP). In many countries, both would be the same if the IIP is computed on the basis of turnover. This distinction is based on the conceptual difference between turnover, output and value added. Although Eurostat's Short-term Statistics guidelines only specify value index based on turnover at current prices, a small number of countries (e.g. Italy and Albania) compile both an industry (or manufacturing) volume index and an IPP.

Priority indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
Consumer confidence indicator	A consumer confidence indicator measures consumer 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 consumer on the past, current and future economic situation.
Business confidence indicator	A business confidence indicator monitors the current and future business situation and 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 response from businesses on their assessment of past, current and future economic conditions. 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.
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, flexi time 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 performing the work or indirectly to a household or family member. Employment by economic activity refers to the distribution of the employed according to employed persons according to ISIC.
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.
Residential property price index	The residential property price index is an index number measuring the rate at which the prices of residential properties change 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. The residential property price index is only developed by a limited number of countries. These indicators pertain 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.

SECTION N. POLICY RELEVANCE OF THE PRIORITY STATISTICS AND THEIR STATISTICAL FRAMEWORK

As discussed briefly above in the Background (section A) of the *Regional Guidelines* publication, some of the countries in the Arab Region lack the capacity to produce and disseminate essential key STSs for short-term economic analysis and decision-making by government and non-governmental agencies and organizations. Effective business cycle analysis, and the monitoring of a countries economic performance from a policy perspective, requires access to timely high quality STSs. The recent global financial and economic crises further highlighted the importance of timely, reliable, and comparable economic statistics for monitoring short-term financial and economic changes. Recognizing that such indicators are fundamental for managing economic development and the formulation of appropriate strategies there is an urgent need to improve key STSs in the region, taking into account the varying country needs and work on the development of economic statistics undertaken by specialized bodies and related organizations in the region.

As mentioned above, the current *Regional Guidelines* flows on from earlier UN ESCWA publications which provide an Arab Region context for a number of global and international initiatives on the development of STSs and early warning systems. The earlier publications comprised: *Study on Economic Statistics in the ESCWA Region: Sources and Methods* [ESCWA 2011]; *Handbook on Statistical Metadata for the ESCWA Region* [ESCWA 2011a]; and *Study on Short-term Economic Indicators for the Arab Region* [ESCWA 2013].

This section of the *Regional Guidelines* summarizes the analytical use and policy relevance from a user perspective of each of the priority indicators outlined above. The summary on short-term statistics draws text directly from the UNSD publication *Data Template and Metadata for Short-term Statistics* [UNSD 2015c].

The statistical framework elaborates on the periodicity and timeliness dimensions and the reference to the source data. The analytical framework highlights the analytical use and policy relevance of the indicator data set for monitoring and reporting of economic and financial developments. These descriptions could be further refined by national agencies to guide the drafting of commentaries on the observed trends in the data at the country level and the promotion of the policy relevance of the statistical dissemination framework.

The policy relevance and statistical framework for the remaining STSs listed in the UN ESCWA questionnaire are provided in annex 13 below.

National accounts	
Analytical framework	The main analytical purpose of quarterly national accounts (QNA) time series is to offer an overview of recent economic and financial trends that are 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 modeling, whereby business cycle analysis focuses on the identification of turning points through trend-cycle analyses and the analysis of dynamic relationships between economic and financial variables such as coincidences, leads and lags and econometric modeling extends to forecasting of variables in future reference periods.
Statistical framework	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 behavioral relationships should not be considered as a substitute for data collection and are out of 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.

Producer Price Index	
Analytical framework	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 to revalue assets from historic to replacement cost terms. The producer prices index for corporate services is a relatively new development and provides a reliable means of measuring and monitoring inflation for business-to-business services.
Statistical framework	In many countries the all item 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 to users as year-to-year changes, month-to-month, as annual indices and annual percentage change. Some countries prepare accelerated first estimates for the PPI 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.
Import and Export Price Indices	
Analytical framework	Import and export price indices are a valuable input into the processes of measuring inflation, formulating fiscal and monetary policy, forecasting future prices, conducting elasticity studies, measuring the competitiveness of an economy, analyzing exchange rates, negotiating trade contracts, and analyzing import prices by locality of origin.
Statistical framework	All-items import and export price indices are often prepared on a monthly basis and released within a short period after the reference month. These indices can be presented as year-to-year changes, month-to-month, as annual indices and annual percentage change.
Production and turnover	
Analytical framework	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 and cast 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. 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 and signals 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 reinitiated with the issuance of a new permit since the pervious permit has expired. 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	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.
Business and Consumer Confidence Indicators	
Analytical framework	Business and consumer surveys provide essential information for economic surveillance, short-term forecasting and economic research. Moreover, they are widely used to detect turning points in the economic cycle.
Statistical framework	A *consumer confidence indicator* measures consumer 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 consumer on the past, current and future economic situation. An example of a consumer confidence indicator is the consumer confidence indicator by calculated 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: lot better, a little better, the same, a little worse, a lot worse): (a) Expected change in financial situation of household over the next 12 months; (b) Expected change in general economic situation over next 12 months; (c) Expected change in unemployment over the next 12 months; and (d) Expected change in savings of household over next 12 months. A positive CI indicates a favorable view, except for the inflation rate, the currency-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. The *business confidence indicators* are based on business surveys which can cover a single economic activity such as manufacturing or with 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 are then used to build composite indicators. Based on the frequency of the survey, the indicators can be produced on a monthly or quarterly frequency. 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 household spending and saving intentions, and to assess their perception of the factors influencing these decisions. 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 series and the usefulness of a specific data series in predicting 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.
Employment by activity	
Analytical framework	Labour market data comprise a key set of statistics for the assessment of cyclical developments and macroeconomic and social policy making. Employment data plays an essential role in the compilation of key statistics for the analysis of long-term economic equilibria and the movements around it. Data can be disaggregated by various attributes such as gender and age. The data on employment 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 non-seasonally or seasonally adjusted.
Statistical framework	Labour market data are disseminated on a monthly basis in advanced economies either non-seasonally or seasonally adjusted. In less advanced economies, such data may be lacking or, if available, are disseminated on a quarterly or less frequent basis.
Household debt	
Analytical framework	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 socio-economic policy making. Also, this income variable determined 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	Total debt can in part be obtained 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. Information on household debt may also be obtained from household surveys on income, consumption and wealth.
Residential property price index	
Analytical framework	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	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.

SECTION O. DEVELOPMENT NEEDS FOR PRIORITY SHORT-TERM STATISTICS IDENTIFIED BY PILOT COUNTRIES

This section of the *Regional Guidelines* outlines the main development needs and priorities identified by the seven pilot countries in the assessment reviews undertaken by the UN ESCWA Secretariat in 2015 required to develop the capacity of individual pilot countries to produce the priority set of STSs identified in section L above. Further information on these needs was obtained from the countries at the Expert Group Meeting held in Jordan in February 2016. The discussion commences with a brief outline of recent global initiatives, which although centered on their use as input series to the compilation of national accounts and the implementation of the 2008 SNA, are also relevant to the development of these indicators as components of early warning systems.

1. Global initiatives

This sub-section outlines two current global initiatives relevant for the development of the capacity of countries in the Arab Region to compile and disseminate economic indicators of appropriate quality and methodological transparency. Both initiatives relate to the implementation of the 2008 SNA, for which the indicators are key inputs. The relevance of national accounts to the development of the capacity of countries in the region to compile and disseminate priority economic indicators primarily stems from the role of the SNA as the common conceptual framework underlying the integration of all economic statistics including the STSs covered in the current publication.

Integrated economic statistics are comprehensive sets of different statistical domains such as consumer price indices, unemployment rates, and production indices that use common concepts, definitions, classifications, estimation methods, and data sources to produce a consistent and harmonized picture of economic activity.[12] The benefits of an NSS compiling and disseminating integrated economic statistics accrue to both producers and users of statistics, the former in the compilation of national accounts which requires the availability of coherent input series and the latter through ensuring that the messages provided by indicators recording level and movements in different aspects of economic activity are consistent.

Building blocks for the integration of economic statistics cover a very wide range of institutional, infrastructure and technical aspects involving all phases of the statistical production process.[13] As outlined below (in section Q), the development of national capacities covering these issues is best undertaken through the use of effective National Statistics Development Strategies (NSDSs) that encompass the entire national statistical system. Over the last few years information on the current situation in ESCWA Member states with respect to many of these issues have been collected in a number of questionnaires related to 2008 SNA implementation. More detailed assessments are a key element of an effective NSDS process.[14]

[12] United Nations, 2010, *Guidelines on Integrated Economic Statistics* (final draft circulated for comment), UNSC, New York. Available at http://unstats.un.org/unsd/nationalaccount/ies/.

[13] For example: Institutional and legal arrangements to the principles of official statistics; modern IT environment; processing and dissemination through common concepts, metadata, classifications, data editing and data exchanges; the use of common registers and frames; the introduction of integrated survey and sampling design; reliance on administrative data sources; etc. [Guidelines on Integrated Economic Statistics, p. 31].

[14] For example through detailed self-assessments of the current situation in the NSS using checklists similar in detail to UNSD's *Diagnostic Framework for National Accounts and Supporting Economic Statistics* – refer http://unstats.un.org/unsd/nationalaccount/docs/WG4_20DiagnosticTool.pdf.

Implementation programme for the 2008 System of National Accounts (SNA) and their supporting statistics

The Implementation Programme for SNA 2008 is a global initiative led by the Inter-Secretariat Working Group on National Accounts (ISWGNA) and the United Nations Statistical Division (UNSD) to assist countries to develop their statistical and institutional capacity to make the conceptual change from their existing SNA to the 2008 SNA. The Programme also aims to improve the scope, detail and quality of input series to the national accounts, many of which are included in the Data Template for Short-term Statistics provided below in annex 7 which formed the basis of the indicators reviewed in the assessments of the seven pilot countries. This recognizes the role of the SNA as the common conceptual framework underlying the integration of economic statistics and is consistent with SNA data needs. Most statistical series in the Data Template will satisfy many of the source data needs of national accounts compilers.[15]

The three implementation principles endorsed by the United Nations Statistical Commission at its 40th session in February 2009 are:

- Strategic planning;
- Coordination; monitoring and reporting;
- Improving statistical systems.

The strategy takes as its starting point the varying levels of SNA implementation in different countries, acknowledging the importance of coordinated action and emphasizing the need for close cooperation with United Nations regional commissions.[16] Processes to implement these principles for the SNA are identical to those required for the development and improvement of economic statistics in the Arab Region, namely:

(a) Use of national strategies for the development of key infrastructures and statistics as strategic planning frameworks and their adoption through national programme implementation;

(b) Use of existing international statistical standards and guidelines and where required, the development of manuals and handbooks to meet the specific needs/environment of the region;

(c) Statistical capacity building through training and technical cooperation and coordination within NSSs, across the region and with global initiatives;

(d) Periodic monitoring and reporting of progress on both SNA implementation and the development of core short-term statistics and associated metadata by countries in the region.

These implementation principles and processes in the context of the capacity development needs of the seven pilot countries are discussed further below in section O.

2. Ideal data requirements for the compilation of quarterly national accounts

The 2013 edition of the Eurostat *Handbook on Quarterly National Accounts* [Eurostat 2013] outlines an "ideal" set of national data requirements for the compilation of the three approaches for quarterly GDP that would enable countries to fulfil the requirements of the Eurostat-OECD QNA questionnaire.[17] This set of input series is presented below in table 10. As can be seen, the list includes many of the priority STSs.

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[15] UNESCAP, 2010, *Proposed Core Set of Economic Statistics for Asia and the Pacific*, para. 20. Paper prepared for the 2nd session of the ESCAP Statistical Committee, Bangkok, December 2010 – available at http://www.unescap.org/stat/cst/2/CST2-4E.pdf.

[16] ESCWA, 2010, Strategic Issues Related to Official Statistics in the Western Asia Region. Strategy of Implementation of the System of National Accounts, paras. 3-9. Paper prepared for the 9th session of the Statistical Committee, Beirut, October 2010 – available at http://css.escwa.org.lb/sd/1324/4E.pdf.

[17] In addition to the compilation of: primary and secondary distribution of income accounts and use of disposable income accounts; capital accounts; and financial accounts.

Table 10. Eurostat-OECD ideal set of QNA input series

Input series	Detail
Quarterly household budget surveys	Expenditure on goods and services
Business surveys	Sales/turnover
	Purchases
	Gross fixed capital formation by principal asset type
	Inventories
	Compensation of employees
	Gross operating surplus
	Employment
	Financial information
	Sectoral and industry breakdown
Business surveys are generally run to support the monthly index of production and the monthly (or quarterly) index of retail sales. Some product/commodity breakdown is desirable for production and expenditures to aid the construction of quarterly supply and use tables and deflation.	
Government spending and receipts	Data to compile the accounts with respect to general government sector
	Data needed to split government final consumption expenditure into its collective and individual components
	Current taxes on income and wealth
	Taxes and subsidies on products, and production and imports
	Property income receivable and payable
	Social contributions to government social security schemes
	Social benefits payable to households
Information should be available on an accrual basis.	
Balance of payments and international investment position	Exports and imports of goods (f.o.b.) and services
	Primary income transactions with non-residents
	Secondary income transactions with non-residents
	Capital transfers with non-residents
In addition, detailed international trade statistics are required to support the compilation of quarterly supply and use tables and the compilation of chain-linked volume estimates of exports and imports of goods and services.	
Other primary and secondary income flows	Dividends paid and received by corporations;
	Interest flows between sectors
	Non-life insurance premiums, property income attribute to policyholders, claims and changes in technical provisions
	Life insurance and annuity premiums, property income attribute to policyholders, claims, and changes in entitlements
	Non-government pension schemes: contributions, payments and changes in pension entitlements
Price indices	Consumer price indices
	Producer price indices for goods (including agriculture)
	Producer price indices for services
	Export and import price indices for goods
	Wage cost indices

Source: Eurostat *Handbook on Quarterly National Accounts* [Eurostat 2013, p. 85].

The QNA Handbook stressed two key observations in the presentation of such a list that are particularly relevant for the current *Regional Guidelines* and countries in the Arab Region, namely:

- The list is presented in the context of it being an "ideal" list of available input series required for the compilation of QNAs. As such, it is understood that many of the series would not be available at the optimal frequency or the required level of data quality. Examples of such non-available series included quarterly household budget survey data and monthly (or even quarterly) purchases data from business surveys. Such data, if available at all, are frequently compiled on an annual basis;
- In the absence of such "ideal" data countries need to make use of sources that are available and to apply a range of adjustment and extrapolation techniques. As outlined below, a number of the pilot countries identified the need for practical technical assistance in the use of such techniques based on their existing data series;
- The need for the detailed specification of the input series to be tailored to the economic structure of each individual country and the importance of the various components in the accounts. Specific industry activities (e.g. agriculture) that are less important for an individual country can compile estimates for that industry using less information.

An example of a similar table prepared by the UK Office for National Statistics (ONS) is provided in table 13 below. This table outlines the STS series currently used by the ONS for the compilation of UK national accounts.

Many of the recommendations for the priority STSs presented in section Q below are based on the need for their use as input series for the compilation of the various GDP approaches.

3. Development needs identified by pilot countries for priority short-term statistics

Table 11 below outlines the institutional, infrastructure or statistical/technical barriers identified by the seven pilot countries in the assessment reviews and during UN ESCWA technical missions undertaken in early 2016 that prevent the priority STSs outlined in table 9 above from either being collected, compiled and disseminated completely, or being disseminated with the required frequency, timeliness or quality with respect to user needs or in compliance with the relevant international statistical standard or guideline. This table distils the capacity development need information outlined in greater detail in annex 6 below and, in addition, flows on from the data quality issues for all of the STSs in the assessment questionnaire that are provided in section K above which were derived from the pilot country assessment reports.

As can be seen a wide range of barriers were identified, with the main ones being:

Institutional	Insufficient staff, financial or IT resource base for the development and ongoing maintenance of any additional STSs. Such issues arise due to cuts in funding, staff vacancies not being filled. Also, high rates of staff turnover were cited in some instances.
	The need to improve coordination with other relevant agencies within the NSS from where input series may be sourced.
Infrastructure	Need for more modern technology to improve efficiency and timeliness of collection and production processes within the agency. Need for improved time series database capacity was specifically mentioned by several countries. Need for a business register to provide an appropriate frame for enterprise surveys.
Statistical/technical	Problems with or insufficient source data or capacity development required to identify potential data sources. Ways of developing capacity are exchange of ideas/experiences with other countries in the region or elsewhere, study missions abroad, etc.
	Need to develop staff knowledge and understanding of relevant international statistical recommendations and guidelines and on practical processes for their implementation.
	Need for expert review of current collection, compilation and dissemination practices. Development of seasonal adjustment expertise mentioned in several instances.

Table 11. Institutional, infrastructure and statistical barriers identified by pilot countries for priority STSs

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
Egypt			
Flash GDP	no	-	
GDP by production	yes	Q	National accounts staff require technical assistance in producing a number of indices and indicators to estimate quarterly GDP by current and constant prices (services, government and investment). An expert is needed for the estimation of the balance sheet because it is compiled up to the capital account. There is also a need for models to be used in the estimation of the Quarterly National Accounts.
GDP by expenditure	yes	Q	
GDP by income	no	-	Lack of data
Import price index	no	-	Produced annually, CAPMAS currently in process of revising indicator. Appropriate statistical software is needed for the data treatment and the production of the export and import of goods and services indicators. Use best practices from other countries required to reproduce the import and export indices and solve the problem of inaccurate quantity data for foreign trade. More specifically, there is a need to: • Strengthen coordination mechanisms; importance of data sharing between the different institutions; • Calculate and disseminate the indices on a monthly or quarterly basis in accordance with international recommendations; • Work on the implementation of international recommendations in the compilation of the indices and regarding the units of measurement.
Export price index	no	-	
Producer price index	yes	M	Regional workshops required for discussing the construction of major groups for the PPI and for the sharing of applied practical exercises among the countries of the region.
Turnover index of industry by major division	yes	M	
Production index for industry by major division	yes	M	Delay in receiving data from some sources. Requires data to be estimated. • As the IIP refers to industrial production, the gross output in the national account concept is not really relevant to use the compilation of IIP. According to the monthly questionnaire, value of output produced is recommended to use; • The most disaggregated level of IIP is the 2-digit level of ISIC; it is recommended to be the ISIC 3-digit level; • Sampling frames should be created from the overall frame, namely the business register, for individual ISIC 3-digit classes;

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
			• A drawback of the current IIP compilation is that the resultant IIP refers to output but not value added. If the IIP is to measure real changes in value added over time, the IIP must be under the unrealistic assumption that value added as percentage of output remains constant over time. It is not plausible to obtain micro data on monthly value added from neither establishments nor enterprises; • Alternative proposals for IIP compilation in accordance with the latest international recommendations for IIP (IRIIP 2010). In the longer-run perspective, adoption of a product-based-cum-Laspeyres-type weighted average approach is strongly recommended.
Turnover index for retail trade by major division	no	-	
Production index for construction	no	-	
Consumer confidence indicator	yes	NI	Not produced within the NSS
Business confidence indicator	yes	NI	Not produced within the NSS
Employment by activity	yes	Q	Analysis of panel surveys studies as well as the seasonal adjustment methods for labour market indicators and for income, expenditure and consumption household surveys. Wages statistics need to be produced quarterly instead of annually to meet SDDS requirements.
Household debt	no	-	Data on debt from Household Income, Expenditure and Consumption Survey is incomplete.
Residential property price index	no	-	
Services index for other services by major division	no	-	
Tunisia			
Flash GDP	no	-	
GDP by production	yes	Q	National accounts need to be compiled on the basis of SNA 2008.
GDP by expenditure	no	-	Not compiled due to lack of source data and compilation methodology
GDP by income	no	-	
Turnover index of industry by major division	yes	M	Require iPads for collection of data and more powerful technology to reduce production time.
Turnover index for retail trade by major division	no	-	

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
Producer price indices	yes	M	Need for the introduction of agricultural products in the calculation of producer price indices.
Import and export price indices	yes	M	Require access to harmonized classification system of foreign trade in Arabic and to go from the old to the new classification.
Consumer confidence indicators	no	-	
Business confidence indicator	yes	NS	
Residential property price index	no	-	Draft indices have been calculated but not published. Seek expert review to confirm methodology.
Palestine			
Turnover index for industry by major division	yes	Q	
Turnover index for retail trade by major division	no	-	Current limitations to their compilation include: • Lack of training on international standards; • Knowledge on necessary coordination with other sources; • Funding.
Production index for construction	no	-	
Turnover index for other services by major division (excluding financial services and non-commercial services)	no	-	
New orders index for industry by major ISIC division (for those that work on order)	no	-	
New orders index for construction (building permits or housing starts)	no	-	
Household debt	no	-	A number of reasons: • Data sources have limited ability to provide required data from household accounts; • Data source, the Palestinian Expenditure Survey planned to be conducted every three years; • Data on net property income available only on annual basis. Household savings estimates not available.
Non-financial corporate profits	no	-	
Non-financial corporate debt	no	-	
Residential property price index	no	-	Not compiled due to absence of source data and the need to develop staff capacity and skills in this area.

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
New house sales	no	-	
Existing house sales	no	-	
Consumer confidence indicator	no	-	
Business confidence indicator	no	-	Recently commenced compiling general business cycle indicator. However, problems of funding and necessary tools for required coordination between PMA and PCBS need to be resolved.
Qatar			
Flash GDP	no	-	• Need to fill vacant positions. High rate of staff turnover; • Need to acquire specialized time series database software to enable benchmarking and seasonal adjustment; • GDP by income not compiled because of absence of data sources; • Flash estimates not produced due to lack on monthly volume data; • In country on-the-job training on independent estimation of GDP by expenditure, in particular, on the estimation of capital formation and on the calculation of capital consumption expenditure. Training also required on the benchmarking process and on seasonal adjustment techniques.
GDP by production	yes	Q	
GDP by expenditure	yes	Q	
GDP by income	no	-	
Producer price index	yes	M	Seasonal adjustments not carried out. Need to familiarize staff with recommendations in PPI Manual [Is available in Arabic]
Import price index	no	-	Need to develop expertise of staff through study tour and to exchange experiences with other countries in region. More specifically, there is a need to: • Encourage the consistency with National Accounts; • Use a unique new questionnaire design for all PPI and PPI-like indices. This new questionnaire design will include a specific space for description of "terms of sales"; • Encourage the review of foreign trade data and in particular the data on quantities in the case of adopting the hybrid approach for XMPI; • Integrate value and price indices without observation of quantities; • Continue work on XPI computation (weights and formulas); • Begin work on MPI: sampling and test of visits.
Export price index	no	-	
Production index for industry by major division	yes	NI	In country mission required to review the methodology under development for the construction of a Quarterly Production index for the Industrial sector.

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
Turnover index of industry by major division	no	-	• Will require new survey data sources; • Need to exchange experiences with other countries in region; • Staff need to familiarize themselves with international standards; • Technical assistance and in country training on methodology for the compilation of a Quarterly Production index for the construction sector; • Technical assistance and in country training on methodology for the construction of a Quarterly Retail trade turnover index.
Turnover index for retail trade by major division	no	-	
Production index for construction	no	-	
Consumer confidence indicator	no	-	• Need to improve capacity at analysis and interpretation of index; • Need to improve capacity at computation of index.
Business confidence indicator	no	-	
Employment by activity	no	-	Sample size of LFS insufficient to produce disaggregations by activity. At moment only compiled annually.
Household debt	no	-	
Residential property price index	yes	Q	
Oman			
Flash GDP	no	-	Lack of monthly volume input series
GDP by production	yes	Q	
GDP by income	no	-	Lack of relevant source data
International Investment Position	no	-	
External debt	yes	Q	• Need to improve databases in all institutions and introduce user-friendly time series formats for data dissemination; • Expand cooperation with other agencies to expand data collects and fill in data gaps.
General Government Gross Debt	no	-	Are compiled but not disseminated due to coverage issues. Technical assistance required.
Import price index	no	-	Currently work in progress. Expect to be launched in 2016.
Export price index	no	-	
Consumer confidence indicator	no	-	Difficulties related to computation and data gaps.
Business confidence indicator	no	-	
Turnover index for retail trade	no	-	
Jordan			
Flash GDP	no	-	Not compiled due to limited resources.

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
GDP by production	yes	Q	
GDP by expenditure	no	-	• Requires capacity building; • Posts not filled due to budget cuts; • Need to invest in new technology to improve productivity through more automated processes.
GDP by income	no	-	
Import price index	yes	M	• Indices previously compiled not based on relevant international standards due to limited resources; • Need capacity building to develop new indices based on international recommendations. There is a need to: • further apply international recommendations when collecting international trade data and for quantity data measurement units; • strengthen coordination between the various entities working on international trade statistics; • commission a joint team comprising the Department of prices and foreign trade department in collaboration with the Central Bank to prepare a document detailing the elements of the methodology used in calculating the indices and to work on updating the "current methodology" based on the recommendations of the United Nations Statistics Division.
Export price index	yes	M	
Production index for construction	no	-	• Capacity building required to compile index; • Resource issues.
Turnover index for industry	no	-	
Turnover index for retail trade	no	-	
Consumer confidence indicator	no	-	• Not currently compiled with Jordanian NSS due to limited financial and staff resources; • Staff capacity building required.
Business confidence indicator	no	-	
Household Debt	no	-	• Staff, financial and IT resource issues; • Capacity building required to develop staff knowledge of relevant international standards.
Residential property price index	yes	Q	
Lebanon			
Production index for industry by major division	no	-	• The construction of a business register linked with the Ministry of Finance, Lebanese customs, and other concerned ministries to assist the development of a production index of appropriate periodicity and timeliness; • Training on sampling methods specific for economic surveys.

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
Import price index	yes	NI	CAS currently compiles import and export price indices but are not published. Figures are used internally for National Accounts purposes. Central Bank wishes to improve external trade statistics to include of freight & insurance costs in import statistics based on business surveys, Tourist surveys for a better estimation of travel services, improve data reported from General security. Technical assistance is needed to conduct surveys on importers and exporters of business services. Also require an assessment mission that works on real data to determine the necessary capacity building to produce these indicators. More specifically, there is a need to: • Further apply international recommendations when collecting international trade data and for quantity data measurement units; • Strengthen coordination between the various entities working on international trade statistics; • Obtain explanatory information from data sources regarding some imports and exports data; • Disseminate the indices on a monthly or quarterly basis in accordance with international recommendations; • Commission the team working on the price indices to prepare a document detailing the elements of the methodology used in calculating the indices and to work on updating the "current methodology" based on the recommendations of the United Nations Statistics Division.
Export price index	yes	NI	
Flash GDP estimates	no	-	Delays in obtaining basic data on time from other government agencies and lack of periodical surveys.
GDP by production	yes	Q	• Administrative and business survey data is needed to be able to estimate GDP more accurately; • Technical assistance is needed to improve FISIM estimation; • There is an urgent need to construct a new Lebanese Business Register that will permit CAS to rely less on the Ministry of Finance register. The register will allow CAS to conduct business surveys itself and improve the quality of GDP estimation. In the current situation, MoF does not share the taxpayer database with CAS for confidentiality reasons; • IT infrastructure needs to be updated to take into consideration accounts improvements in the future; • Any additional new data sources when they become available will create a shortage in the staff allocated to compiling National Accounts at CAS; • Rigidity in legislation doesn’t permit CAS to temporarily recruit external specialized staff for

Priority short-term statistic	Currently produced	Current frequency	Institutional/technical barriers
			specific tasks. This situation has increased the workload of existing staff and at the same time has limited resources for improvements in the future.
GDP by income	no	-	Data to produce income estimates of GDP currently not available.
Producer price index	no	-	CAS is currently preparing to launch a new PPI covering the whole Lebanese territory with the assistance of IMF. Data collection will be done on quarterly basis but the PPI publication will be monthly. No preview date is available for launching this indicator. The existence of a business register is a prerequisite to the compilation of this index.
Production index for construction	no	-	• Technical assistance to help CAS construct a new construction permits database; • Technical assistance to develop a strategy to compile this index.
Business and consumer confidence indicators	yes	Q	Technical assistance in the compilation of consumer confidence index. The Central Bank Economic Research Division is keen to have study visits and workshops in Anglo-Saxon countries and other EU countries to gain from their experience in the field of composite indicators and business surveys and to compare its methodological approach with their methodologies.

NI: Not indicated.

Table 12 below further distils the barriers identified above. As can be seen, the three main interrelated needs cover a combination of institutional, infrastructure and statistical/technical issues involving the:

- Provision of additional funding that would enable the initial development of new indicators and their subsequent ongoing implementation. Related to this is the need to fill staff vacancies in the production areas that have been left unfilled as a result of budget cuts. Some of the countries also pointed to problems associated with high staff turnover and the departure of skilled staff to higher paid jobs in other organizations;
- Provision of new IT infrastructure to improve processes for either data collection (e.g. hand held devices for price collection or the field collection of household survey data) or the processing of data once it has been transmitted to national statistical agency regional or head offices for further editing, compilation and subsequent dissemination. Several countries pointed to the need to replace existing manual Excel-based systems with appropriate time series oriented data base software for the computation of indicators, etc.;
- Identification of appropriate survey or administrative data sources that can be used as input series for the development of new STSs, or to improve the quality of indicators currently disseminated, for example, to improve either their frequency and timeliness with respect to the recommendations of international standards and guidelines. In this context, some of the techniques used by EU countries to compile flash estimates based on partial time series or initial survey responses are particularly relevant;
- Several countries referred to the need for practical assistance based on proven experiences of other countries in the region or other regions of the globe that are based on the numerous compilation manuals published by the UN, IMF, Eurostat and the OECD, most of which have not been translated into Arabic [unlike the standards from which they are based which have been]. A key element of such assistance is

the use of extrapolation and other adjustment techniques to modify national concepts/variables to target variables outlined in key international standard(s) for each indicator.

In terms of the modes of delivering the required technical assistance/training there was a strong preference for:

- On-the-job training by experts which would best facilitate the development of staff skills through the practical resolution of issues/barriers relevant to the environment and needs of each country in the region, e.g. the use of adjustment/extrapolation techniques required to compensate for the use of less than optimal input series for the compilation of the various approaches of GDP;
- Small and informal regional workshops for discussing statistical and IT issues/barriers and their practical resolution in an environment where all of the countries attending would be expected to participate and contribute.

The aims of such technical assistance are to build human resource capacity and to improve key statistical infrastructure including quality assessment frameworks, metadata repositories and other key national statistical infrastructures identified by the pilot countries. Such technical assistance is designed to fill gaps that national agencies are unable to accomplish and to facilitate national capacity development activities. Where relevant, these activities will link into regional and global initiatives and tools led or developed by international bodies, such as the UNSD led work on quality assessment frameworks, metadata repositories, etc.

Table 12. Development issues/requirements for priority STSs identified by pilot countries

Priority STSs	Country - Development issue/need						
	Egypt	**Tunisia**	**Qatar**	**Palestine**	**Jordan**	**Oman**	**Lebanon**
GDP by production/income/ expenditure and Flash	TA - statistical	Data source availability issues Data quality framework Other	Data source availability/ identification In country on-the-job training	Data source availability issues	Skill shortage TA - training	Data source availability issues Data source quality issues	Data source availability issues Data source quality issues Skill shortage Statistical infrastructure (register) IT infrastructure Funding Staff shortage
Producer price index	Data source quality issues Regional training need	TA – statistical IT infrastructure	Training - self	-	-	IT infrastructure	Statistical infrastructure
Import and Export price indices	Data source availability issues	IT infrastructure	In country on-the-job training Temporary overseas experience	Data source availability issues	Data source availability issues TA - training	TA - statistical	TA – statistical
Turnover index of industry by major division	TA – statistical Data source availability issues	-	Availability of international guidelines in Arabic In country on-the-job training	Funding Data source availability issues TA - statistical	-	Data source availability issues	Statistical infrastructure TA - training
Production index for industry by major division	TA - statistical	IT infrastructure	Data source availability issues TA – statistical	-	Funding	Data source availability issues	-

Priority STSs	Country - Development issue/need						
	Egypt	**Tunisia**	**Qatar**	**Palestine**	**Jordan**	**Oman**	**Lebanon**
			Availability of international guidelines in Arabic				
Turnover index for retail trade by major division	TA - statistical	-	Data source availability issues Temporary overseas experience	Funding TA - statistical	-	-	-
Production index for construction	TA - statistical	-	TA – training Data source availability issues	TA – training Funding	-	TA - training	Statistical infrastructure TA - statistical
Business and Consumer confidence indicators	-	-	TA - statistical	Funding TA – training Data source availability issues	Funding TA – training	-	TA – statistical
Employment by activity	Data source availability issues TA - statistical	TA statistical Data source availability issues	Funding Data source availability issues	-	TA - training	Data source availability issues	-
Household debt	-	Data source availability issues	Funding Data source availability issues	Data source availability issues	Funding	Funding	-
Residential property price index	TA - statistical	-	-	Data source availability issues TA – training TA - statistical	-	Data source availability issues IT infrastructure	-

TA: Technical assistance.

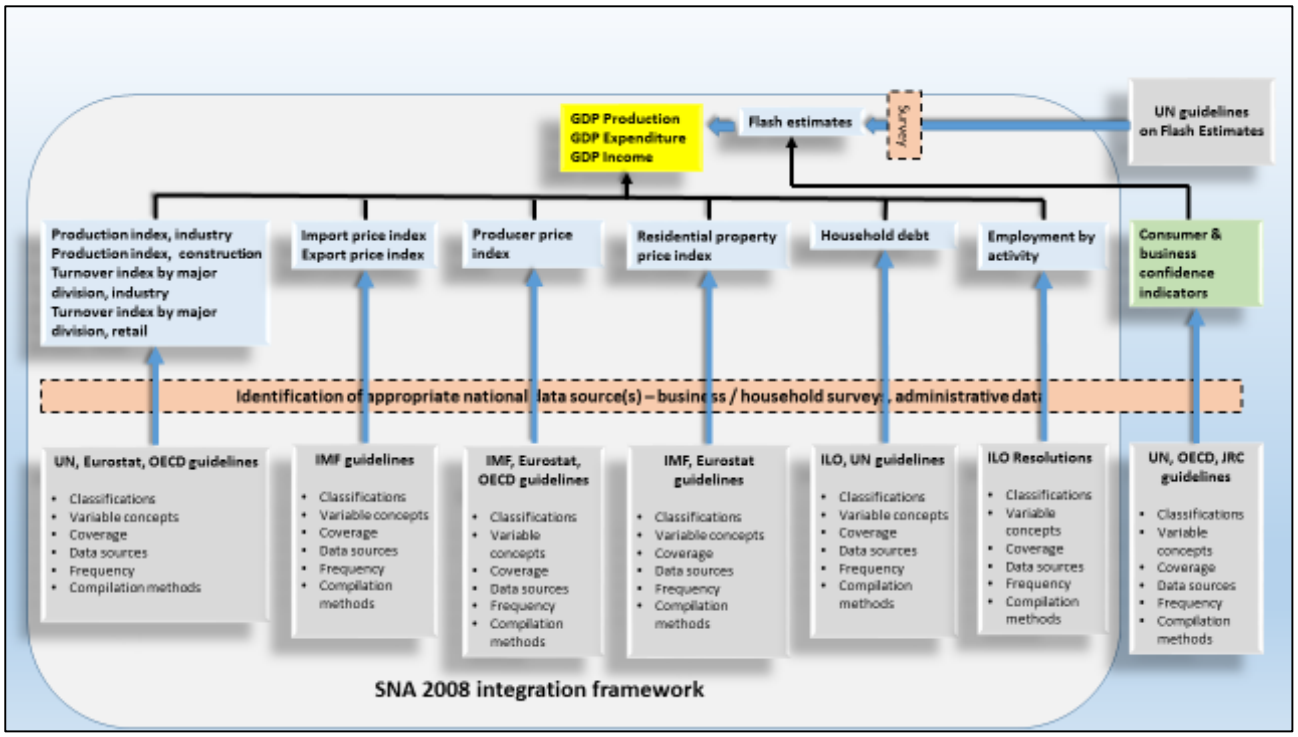
SECTION P. RELATIONSHIP BETWEEN PRIORITY SHORT-TERM STATISTICS

Fourteen of the fifteen priority short-term statistics listed in section L above may be used either as indicators in their own right or as input series for the compilation of one of the three estimates of GDP. Consumer and business surveys on the other hand are primarily used to compile confidence indicators and as component series for the compilation of business cycle indicators. Confidence indicators may also be used for the compilation of flash GDP estimates. The relationship between the priority STSs is illustrated in the following diagram. The compilation of each of the priority indicators are based on a range of international statistical guidelines and recommendations that have been developed by the United Nations, IMF, Eurostat, ILO, OECD, etc., within the SNA integration framework.

The main recommendation constructs of each of the international guidelines include classifications, target variable concepts and concept definitions, recommendations on sector and geographic coverage, review of, and recommendations on national data sources, recommendations on frequency, recommended compilation methodology, etc. Each of these constructs are filtered through possible national data sources that could include direct data collection through business and household surveys, direct price collection, or the use of existing administrative survey data compiled by other agencies within the national administration. The selection of the actual data source is based on trade-offs between a number of considerations including: cost to the statistical agency within existing budget, IT, staff availability constraints; the need to minimize the reporting burden of businesses and households; and of course data quality, in particular, the dimensions of accuracy, timeliness, comparability and coherence.

Key recommendations for the development and improvement of each of the priority short-term statistics on the basis of the international recommendation constructs listed in the previous paragraph (and as illustrated in diagram 2 below) are outlined below in section Q.

Diagram 2. Relationship between the priority short-term statistics



A national example of the relationship between short-term statistics similar to those included in the above diagram and their use as input series to the compilation of the three GDP approaches is further illustrated in the following table listing the main STS input series used by the United Kingdom Office for National Statistics (ONS) for the compilation of their quarterly GDP estimates. This information is provided by the ONS in their brief, non-technical *Quality and Methodology Information Paper* for national accounts published in July 2014. As would be expected, many of the series listed in this table overlap with the Eurostat-OECD ideal set of QNA input series provided in table 10 above**.**

Table 13. Main input series used by UK ONS for the compilation of GDP estimates

GDP approach	Main input short-term statistic/series source	Series frequency
Production	Index of production (Monthly Business Survey)	M
	Index of services (Monthly Business Survey)	M
	Output in the construction industry (Construction Output Survey)	M
	Retail sales index (Retail Sales Inquiry)	M
	Consumer price index	M
	Producer price index	M
	Services producer prices index	Q
	Short run forecasts and models where data has not yet been collected or is not yet available	-
	Other ONS outputs	-
	Administrative data	-
Expenditure	Living Costs and Food Survey	continuous
	Capital Expenditure Survey	Q
	Stocks Survey	Q
	International Trade in Services Survey	Q
	Construction Output Survey	M
	Consumer price index	M
	Producer price index	M
	Services producer prices index	Q
	Short run forecasts and models where data has not yet been collected or is not yet available	-
	Other ONS outputs	-
	Administrative data	-
Income	Operating Profits Survey	Q
	Capital Expenditure Survey	Q
	Average Weekly Earnings (Monthly Wages and Salaries Survey)	M
	General Insurance Survey	Q
	Long-term Insurance Survey	Q
	Investment Trusts Survey	Q
	Securities Dealers Survey	Q
	Short run forecasts and models where data has not yet been collected or is not yet available	-
	Other ONS outputs	-
	Administrative data	-

Q: Quarterly; M: Monthly Source: ONS, *Quality and Methodology Information Paper* for national accounts published in July 2014.

SECTION Q. KEY RECOMMENDATIONS FOR THE DEVELOPMENT AND IMPROVEMENT OF THE PRIORITY SHORT-TERM STATISTICS

As mentioned in section O.3 above, the development needs identified by the seven pilot countries for the priority STSs cover a combination of institutional, infrastructure and statistical capacity development issues. This section of the *Regional Guidelines* provides key recommendations for each of these broad sets of issues and provides links to recommended practices at the national and international levels. The Section first outlines recommendations on key infrastructures and statistical capacity development issues and then addresses the main institutional issue raised in the national assessment reports and in discussions at the Expert Group Meeting held in Jordan in February 2016 namely, inadequate resources and funding.

1. Statistical infrastructure recommendations

Statistical infrastructures cover a wide range of topics/including: classification systems; business registers; quality assessment frameworks; metadata repositories; input and output databases; IT infrastructures, data editing facilities; data and metadata dissemination tools; etc. The adequacy and reliability of such infrastructures has a direct impact on the quality of statistical outputs disseminated by national statistical agencies. The need for the development of these infrastructures was highlighted in UN ESCAP's *Implementation Plan for the Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific* [ESCAP 2012]. Although all of the statistical infrastructures listed above are essential for the compilation and dissemination of the priority STSs, the statistical infrastructures specifically raised by the pilot countries as being barriers to the development of these STSs were:

- Quality assessment frameworks;
- Metadata repositories;
- IT tools for data collection and processing.

A. Adoption of a quality assessment framework

It is recommended that each pilot country develop and publicize on their website a policy on the use of a quality assessment framework for the systematic and ongoing review of the quality of each STS they disseminate.

A key element of such a framework is the identification of the dimensions of data quality such as relevance, accuracy, timeliness, coherence, etc. In order to minimize the lead team and effort required for the development of such a national framework it is also strongly recommended that it be based on an existing framework that has been developed at the international level by the IMF, Eurostat (refer annexes 2 and 3), or UNSD, modified as required to meet national circumstances and resource availability. For example, the use of the IMF framework would enable countries to leverage on work already undertaken in connection to their subscription to either the SDDs or GDDS.

Similar quality frameworks have been adopted by a number of countries around the globe, examples of which are provided in the following table.

Table 14. Examples of quality assessment frameworks implemented by NSOs and international organizations

Country/organization	Framework title	Quality dimensions	Link
Australian Bureau of Statistics	Data Quality Framework	Institutional environment, relevance, timeliness, accuracy, coherence, interpretability, accessibility	Website[1]
Statistics Canada	Quality Assurance Framework	Relevance, timeliness, accessibility, interpretability, coherence	Website[2]
Statistics Finland	Quality Guidelines for Official Statistics	Relevance, accuracy and reliability, timeliness and promptness, coherence/consistency/comparability, accessibility and clarity	Website[3]
Statistics Netherlands	Standard for Statistical Processes, 2011	Completeness, timeliness, predictability, punctuality, simultaneity	Website[4]
UK Office for National Statistics	Code of Practice for Official Statistics	Relevance, integrity, quality, accessibility, protecting confidentiality, balancing needs of users against burden on providers, enhancement through integration/accumulation and innovation, efficiency in costs/fairness in prices	Website[5]
Eurostat	Quality Assurance Framework of the European Statistics System	Relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clarity	Website[6]
IMF	Data Quality Assessment Framework	Assurances of integrity, methodological soundness, accuracy and reliability, serviceability, accessibility	Website[7]
OECD	Quality Framework for OECD Statistical Activities	Relevance, accuracy, credibility, timeliness, accessibility, interpretability, coherence	Website[8]

1 http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Quality:+The+ABS+Data+Quality+Framework.

2 http://www5.statcan.gc.ca/olc-cel/olc.action?objId=12-586-X&objType=2&lang=en&limit=1.

3 http://www.stat.fi/org/periaatteet/laatuatilastoissa_en.html.

4 https://www.cbs.nl/NR/rdonlyres/E1FB2FFA-4AC2-4A16-8862-BC9A08DC4D6D/0/2012x4601pub.pdf.

5 http://ec.europa.eu/eurostat/documents/42577/1235432/CODE-OF-PRACTICE-STATEMENT-OF-PRINCIPLES.

6 http://ec.europa.eu/eurostat/documents/64157/4372717/Eurostat-Quality-Assurance-Framework-June-2013-ver-1-1-EN.pdf/352234ca-77a0-47ca-93c7-d313d760bbd6.

7 http://dsbb.imf.org/images/pdfs/dqrs_factsheet.pdf.

8 http://www.oecd.org/std/qualityframeworkforoecdstatisticalactivities.htm.

The most recent work on quality assessment frameworks at the international level is that undertaken by the Expert Group on National Quality Assurance Frameworks[18] presented at the 2012 UNSC.[19] The work presented to the Commission comprised:[20]

- A generic national quality assurance framework (NQAF) template taking existing quality frameworks into account and establishing a mapping to them;
- A set of guidelines to accompany the template;
- A glossary of the main quality-related terms;
- An online inventory of documents and links to national and international quality tools and references;
- An update of the website on national quality assurance frameworks maintained by UNSD.

Managing metadata is one of the line elements of the National Quality Assessment Framework (NQAF 19) developed by the Expert Group. The Framework states that "Statistical agencies should provide information covering the underlying concepts, variables and classifications used, the methodology of data collection and processing, and indications of the quality of the statistical information - in general, sufficient information to enable the user to understand all of the attributes of the statistics, including their limitations, for informed decision-making". In this context the management of metadata is likely to be more effective if national agencies: participate in international metadata forums; organize programmes to train staff on metadata, and; use international, national or internal standards for metadata documentation, management and archiving. [Expert Group on Quality Assurance Frameworks, op. cit. footnote 22].

The Commission endorsed the work of the Expert Group and requested it to develop an action plan to assist countries in the implementation of their national quality assurance frameworks and, supported the plan to pilot the generic national quality assurance framework template in some countries with different types of statistical systems. The Group was requested to report back to the Commission in due course on the lessons learned during the piloting process. The Commission encouraged international, regional and sub-regional entities to work with UNSD in assisting countries to implement quality assurance programmes.

In the detailed report presented to the Commission, the Expert Group emphasized that use of the NQAF template is intended to be voluntary and is not meant to be prescriptive or viewed as a recommended replacement for other quality frameworks already adopted or in use by a country's NSO.[21] The template is intended to be a tool to provide the general structure within which individual country-specific national quality assurance frameworks can be developed by countries that choose to do so. The Expert Group further emphasized that the components of the template that may be most applicable to one country might be quite different for another country, depending upon aspects such as its stage of development, available resources, the institutional environment within which it operates, and its current most pressing concerns from a quality perspective.[22]

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[18] Membership of the Expert comprised 17 countries from around the globe including China, Indonesia and Japan. Eurostat, IMF, World Bank, Economic Commission for Africa, Economic Commission for Europe, UN ECLAC, UN ESCAP, and UN ESCWA were invited to serve as observers. South Africa chaired the Group and UNSD undertook secretariat functions.

[19] Refer http://unstats.un.org/unsd/statcom/doc12/2012-13-NQAF-E.pdf.

[20] The work undertaken by the Expert Group is outlined in the 97 page document, *Guidelines for the template for a generic National Quality Assurance Framework (NQAF)*, February 2012 – refer http://unstats.un.org/unsd/statcom/doc12/BG-NQAF.pdf.

[21] The *National Quality Assurance Frameworks website* maintained by UNSD contains a very extensive range of information on quality frameworks developed at both international and national levels. The latter includes national quality frameworks and/or descriptions of quality assurance processes and guidelines developed by almost 40 countries, including nine developing countries. For the Asia and Pacific region material is provided on the website for Australia, China, Indonesia, Japan and New Zealand.

[22] Expert Group on Quality Assurance Frameworks, Guidelines for the template for a generic National Quality Assurance Framework (NQAF), February 2012, page 1.

B. Development of a metadata repositories

The most recent work at the international level in the development of metadata repositories was undertaken in the context of the development of Early Warning and Business Cycle Indicators by UNSD (refer section R below). This work highlighted: the importance of reference metadata for data assessment and harmonization of compilation of statistics, and; a standardized metadata format based on the Special Data Dissemination Standard (SDDS) and Statistical Data and Metadata Exchange (SDMX).

The development of metadata repositories requires NSOs in the Arab Region to formulate long-term metadata strategies for the following elements:

1. *Adoption of a common set of metadata items*

It is recommended that national agencies structure their metadata for different statistical domains around a set of common metadata items (or prompt points) such as those developed by the IMF for their Data Quality Assessment Framework (DQAF – refer annex 2 below) or Eurostat in their Single Integrated Metadata Structure (SIMS – refer annex 3). There is considerable overlap in the metadata items and their definitions contained in both frameworks.[23] Almost all countries in the Arab Region have used IMF metadata frameworks for the provision and maintenance of metadata for the STSs within scope of the Fund's Special Data Dissemination Standard (SDDS) or General Data Dissemination Standard (GDDS).

2. *Preparation of Quality Declarations*

In addition to the use of a standard metadata framework containing descriptive metadata (coverage, concepts, compilation processes), it is recommended that countries also provide qualitative metadata that enables users to assess the relevance and quality of the data to their specific need(s).

In this context, recommended international practice with regards to the provision of qualitative metadata is the preparation of Quality Declarations for each major statistical output and key statistical infrastructures, such as registers, using standard quality dimension frameworks such as those used by Eurostat or the IMF. In the past, such information on data quality was obtained by users through direct contact with experts in the collection and compilation areas of statistical agencies. However, statistical agencies around the globe are attempting to institutionalize this knowledge through the provision of improved documentation on data quality and related issues.

The main issues covered in Quality Declarations include:

- Precisely how the STS outputs compiled for each indicator relate to the relevant United Nations, IMF, Eurostat, etc., international standards with respect to national concepts, classifications, collection and compilation methodologies, etc. For example, more often than not, the descriptive metadata provided by national agencies merely provides definitions of the main concepts extracted from the relevant international standard without any analysis of how these differ from national concepts actually used;
- Impact of changes in methodology on the comparability of the data over time and comparability with data compiled by other countries, in particular, major trading partners;
- Underlying assumptions used in the compilation of initial key estimates, such as the compilation of estimates of the components of the non-observed economy;
- The main caveats, cautions and limitations of the data that may impact on the use of the data by government and non-government users. This is particularly important for disaggregated activity data which may be subject to high standard errors, etc. Similarly, there is a need to provide information (even

[23] A comparison of the IMF SDDS and Eurostat definitions for STSs is provided in Table 3.1 (p. 75) of the UNSD publication, *Data Template and Metadata for Short-term Statistics* [UNSD 2015c].

qualitative information) on, for example, types of units where coverage in the compiled statistics might be deficient or require further elaboration to help ensure the appropriate use of the data.

Organizational arrangements for the preparation of these declarations vary considerably between countries. However, given their detailed knowledge of collection, compilation processes, etc., the various statistical domain experts normally have responsibility for the initial drafting of the reports as well as their ongoing revision. Some countries have established specialist methodology units whose job it is to establish guidelines and standards for the preparation of the declarations and to monitor their uniform implementation across the statistics agency.

Metadata also includes information on changes in methodology and data revisions. Recommended metadata practice also includes the formulation of a corporate policy for the preparation and maintenance of structured detailed and summary metadata based on a standard list (or template) of metadata items used to describe all statistical domains such as those described above.

A key issue to be considered in the preparation of the metadata/Quality Declarations is the need to provide information appropriate to the intended audience(s) for the text, particularly for non-government users. In the past much of the metadata prepared by national statistical agencies has been too technical, too legalistic or overloaded with jargon to be of any use by non-statisticians. The trend in recent years has been for statistical agencies to prepare metadata, etc., in "plain English" (or the equivalent in other languages) that conveys the meaning of the metadata more effectively.

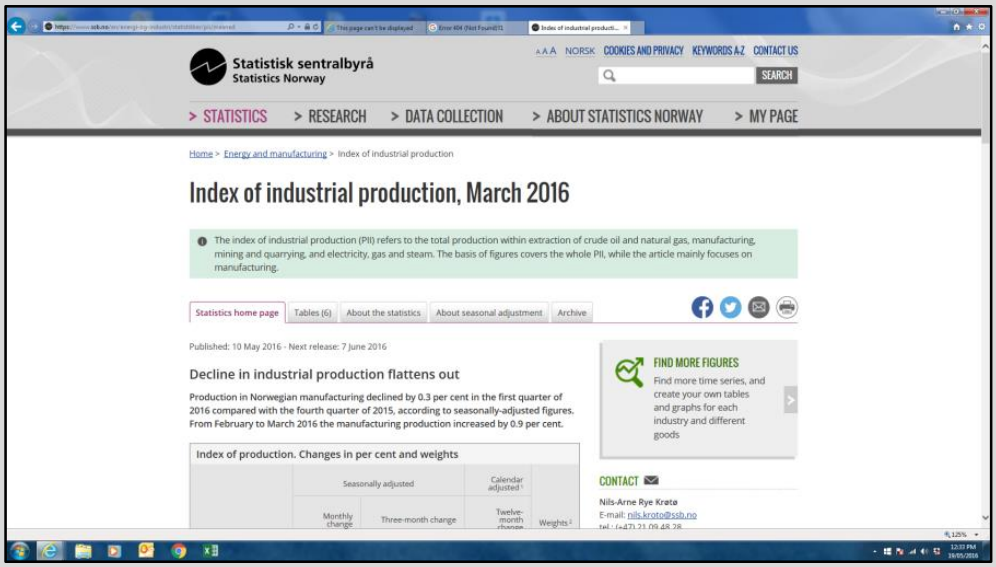
Diagram 3. Metadata availability - Statistics Canada

The above example from the Statistics Canada website depicts a number of elements of recommended practice for metadata, namely:

- The metadata is readily available from the Statistics Canada website;
- It utilizes a standard metadata template applied to a number of statistics domains;
- Provides information on data quality.

Source: Statistics Canada website, available at http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2101.

Diagram 4. Metadata availability – Statistics Norway



The above example from Statistics Norway's website also shows elements of recommended practice for metadata, namely:

- the metadata is readily available from the Statistics Norway website;
- metadata are closely linked to the data they describe.

Source: Statistics Norway website.

C. Improvement of key IT infrastructures

The main areas of IT infrastructure need identified by the pilot countries were modern technology to improve efficiency and timeliness of data collection and production processes within the agency. The need for improved time series database capacity was also specifically mentioned by several countries. The non-availability of such technology was deemed to stem largely from inadequate funding by government. Strategies to improve statistical advocacy to secure improved funding from government are briefly canvassed below in part 3 of this section.

2. Key statistical recommendations

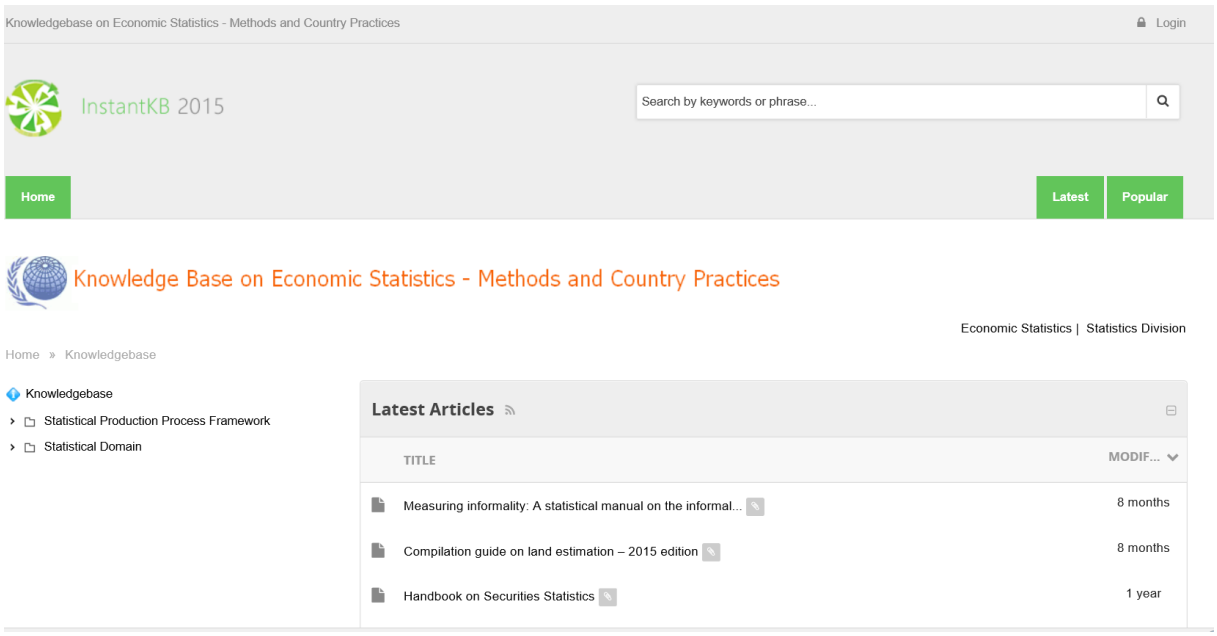
This part of the *Regional Guidelines* outlines a small number of key recommendations derived from current international statistical standards and guidelines for the compilation of ten of the fifteen priority short-term statistics outlined above. As tables 11 and 12 above show, the main barriers for the compilation of the three estimates of GDP are resource constraints and the non-availability of adequate input series rather than issues related to the interpretation of the guidelines and recommendations in SNA 2008 [or 1993]. Key recommendations for the remaining two priorities, flash estimates and consumer and business confidence indicators are outlined below in part III of the current publication. The recommendation are presented in the context of aspects of the relevant international guideline(s) outlined below in annex 10 that are of particular significance for each short-term statistic.[24]

[24] Namely: classifications; variable concepts and concept definitions; recommendations on sector and geographic coverage; review of and recommendations on national data sources; recommended compilation methodology; other relevant issue(s).

Where appropriate, screen shots of, or links to, practices currently used by national agencies in the Arab Region or in other regions are provided. These are largely derived from UNSD's *Knowledge Base*.[25] This database, which is still evolving, outlines or provides links to:

- Current international recommendations/methodology;
- Compilation guides/handbooks;
- Country practices and related information.

Diagram 5. UNSD's Knowledge Base



Source: http://unstats.un.org/unsd/EconStatKB/Knowledgebase.aspx.

Links are also provided to relevant national methodological information (metadata) for short-term statistics collected and disseminated by Eurostat, OECD and the IMF for SDDS and GDDS. This metadata illustrates the use by national agencies of so-called "recommended" or "best practice", based on current international standards and guidelines in some aspects of the statistical processing cycle. Key concepts and processes for each of the priority short-term statistics are provided below.

The national metadata also highlights the fact that data collection, compilation and dissemination activities undertaken by individual NSOs entails their selection from a wide range of discrete elements comprising statistical concepts, infrastructures and processes, etc., for each short-term statistic they produce. The elements they eventually choose are largely determined by available funding, staff resources and skills/knowledge. The elements adopted by an NSO might comprise a mixture of recommended or best practice and those based simply on expediency within the constraints of available funding, etc. For example, the production of a producer price index by a national agency may entail their adoption of recommended practices with regards to statistical concepts, questionnaires, data collection methodology, but also the use of a less than ideal register frame from which in-scope units are selected. The reality is that very few national statistical agencies actually implement recommended practice for all elements of the statistical processing cycle. Compromise, based on sound judgment is required. However, such comprise also reinforces the need for methodological transparency through the use of the recommended metadata practices described above to enable users to make informed decisions on the ability of the indicator to meet their specific needs.

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

The reasons for a country's non-adherence to international standards and guidelines on indicator frequency (and timeliness), etc., are often a combination of institutional and infrastructure barriers. However, all of the pilot countries highlighted the need for focused practical technical assistance that would help them identify appropriate business/household surveys or administrative data sources that could be used as input series for the development of new STSs, or to improve the quality of indicators currently disseminated, for example, to improve either their frequency and timeliness with respect to the recommendations of international standards and guidelines. Such practical assistance would be based on proven experiences of other countries in the region or other regions of the globe that are themselves based on the numerous compilation manuals published by the UN, IMF, Eurostat and the OECD, most of which have not been translated into Arabic. A key element of such assistance is the use of extrapolation and other adjustment techniques to modify national concepts/variables to target variables outlined in key international standard(s) for each indicator.

A. Key concepts and processes

Four of the fifteen priority short-term statistics for production and turnover are based on variations of the key interrelated concepts and processes, defined below, based on information derived from the United Nations publications, *International Recommendations for the Index of Industrial Production*, 2010 [United Nations 2010, pp. 25 and 39], and *International Recommendations for Industrial Statistics (IRIS)*, 2008.

Production	Production refers to the total of all goods and services actually produced within an establishment during the reference period which become available for use outside that establishment, plus any goods and services produced for own final use [United Nations 2008c, para. 4.186].
Output	Output is defined in SNA 2008 [para. 6.89] as the set of goods and services (products) produced by an establishment, excluding the value of any goods and services used in an activity for which the establishment does not assume the risk of using the products in production, and excluding the value of goods and services consumed by the same establishment except for goods and services used for capital formation (fixed capital or changes in inventories) or own final consumption. Value of output includes products produced irrespective of whether or not they are sold, used or entered into inventories for sale or constitutes "work-in-progress" inventories. Output should be recorded at the time it is produced and valued at the basic price prevailing at that time.
Turnover (Value of output sold)	Turnover refers to the amount invoiced by the establishment during the reference period and corresponds to market sales (shipments, receipts for services and other revenues) of goods or services, both primary and secondary, including goods and services transferred to other establishments of the same enterprise. Shipments/sales/turnover should exclude value added taxes and other similar deductible taxes directly linked to the sales as well as all duties and taxes on products invoiced by the unit which turnover after valuation is equivalent to the valuation at basic prices in the System of National Accounts. Included are all other invoiced charges for transport, packaging, etc., passed on to the customer, even if these charges are listed separately in the invoice. Price rebates, discounts and similar allowances granted on returned goods and the value of returned packaging should be deducted [United Nations 2008c, para. 4.140]. While the use of turnover data to compile the IIP is not ideal, it is generally available in a more timely fashion than product level data, and data collection is less costly due to the higher level of aggregation compared to product data.
Turnover value index	*C*ompares the value of turnover in the current period (at current prices) with the value of turnover in the base year (at base year prices).
Turnover volume index	Eliminates the price effect on turnover via deflation using a price index.
Value added	Value added is measured by the amount the outputs produced (by the establishment, industry, etc) exceed the intermediate inputs consumed. It may be measured in current price or volume terms.

Current price measures of production	The current price value of production comprises current period quantities valued at current period prices.
Volume measures of production	Volume measures describe the economic situation of a particular period calculated in the prices of another period. A volume estimate of value added is obtained from a current price value via a process of price deflation. Change over time of the volume measure is referred to as volume change.
Deflation	Deflation is a process that removes the impact of price changes from an estimate of nominal value or "current price" output (e.g. turnover) in order to obtain a volume measure. This is normally performed by dividing the current price estimate of output by a price index, referred to as the deflator [OECD 2007].
Double deflation	Refers to the subtraction of a volume measure of intermediate consumption from a volume measure of output. More specifically: • Obtain current price values of output and intermediate consumption; • Deflate the current price values of output and intermediate consumption using appropriate price indices to obtain volume measures; • Subtract the volume measures of intermediate consumption from the volume measure of output to obtain the volume measure of value added. The double deflation approach is often referred to as the ideal method of obtaining the volume measurement of value added. In reality, this ideal method is difficult to achieve in practice in most countries because the necessary data, in particular to calculate intermediate consumption, are generally not available at the required detail and/or frequency.
Basic prices	The amount received by the producer from the purchaser for a unit of good or service produced as output. It *includes* subsidies on products and other taxes on production. It *excludes* taxes on products, other subsidies on production, suppliers' retail and wholesale margins, and separately invoiced transport and insurance charges [IMF 2004].
Producer's price	The amount received by the producer from the purchaser for a unit of good or service produced as output. It *excludes* any VAT (or similar deductible tax on products) invoiced to the purchaser. It also *excludes* supplier's retail and wholesale margins and separately invoiced transport and insurance charges. The difference between basic and producer prices is generally the per unit subsidy that the producer receives and taxes on production. While basic prices are preferred in the PPI because they represent the per unit revenue received by the producer, producer prices may have to be used when information on subsidies is not available. In most cases producers do not receive subsidies, so the basic and producer prices will be the same. [IMF 2004]

B. Production index for industry by major division

Key international recommendations

International Recommendations for the Index of Industrial Production (IIP), 2010, United Nations

International Recommendations for Industrial Statistics (IRIS), 2008, United Nations [AR]

Country Practices for the Collection and Calculation of the Index of Industrial Production, 2008, United Nations

Industrial Statistics: Guidelines and Methodology, 2010, UNIDO

Compilation Manual for an Index of Service Production, 2007, OECD

International *Standard Industrial Classification of All Economic Activities (ISIC), Revision 4*, 2008, United Nations [AR]

Notes on international recommendations: Chapter 1 of the 2010 *International Recommendations* on IIP summarizes each of the main recommendations discussed in detail in subsequent chapters of the 230 page document. These include specific recommendations relating to: statistical units and classifications; scope and frequency; sources and methods; index compilation; and presentation and dissemination. The key relevant recommendations in the 2008 IRIS publication are those in Chapter IV which describes the components of key variables such as output, turnover. The 2008 United Nations *Country Practices* publication summarizes national practices for data collection and compilation for 69 countries. Finally, *ISIC Rev. 4* provides the framework for the definition of the industry scope of the IIP.

Industry scope

The recommended industry scope of the index of industrial production in the context of ISIC Rev. 4 is:

- Mining and quarrying (section B);
- Manufacturing (section C);
- Electricity, gas, steam and air-conditioning supply (section D);
- Water supply, sewerage, waste management and remediation activities (section E).

Activity coverage

The activity coverage of the IIP relates to the percentage of total output (or total value added) accounted for by enterprises (government and non-government) whose predominant activity is in scope and from which data are obtained each month from either surveys or administrative data sources.

National practices of the actual percentage of total output (or value added) obtained from in scope establishments are a function of: the characteristics of the branch of industry being measured; the frequency at which data are required; data collection difficulties; availability of data sources; and resources available to the statistical agency. For example, where a major proportion of total output is produced by a small number of large establishments, complete enumeration on the basis of a size-cutoff is recommended. On the other hand sampling techniques are often used where there are large numbers of small establishments. The 2008 United Nations *Country Practices* publication indicated that most countries reporting this information applied a cut-off of between 80% and 90% of total output or value added.

Target variables for monthly data collection

Due to the usual non-availability of measures of value added (more specifically, intermediate consumption) on a monthly basis, the target variable for the IIP is gross output at basic prices, disaggregated by each of the ISIC sections described above. Output may be measured in terms of either physical quantities (tonnes, cubic meters, liters, number, etc.,) or in value terms depending on the specific ISIC activity. Output cannot be directly observed from the accounting records of enterprises from which data are obtained, but is derived from the following items: turnover, sales, shipments, receipts for services and other revenues; purchases of goods and services; and inventories. Almost all of these items are listed in the ideal list of input series required for the compilation of QNAs in table 11 above.

More specifically, IRIS (para. 4.186) defines gross output as:

- Value of shipments/turnover/sales of goods or services produced by the establishment;
- + Value of sale/turnover/shipments of all goods and services purchased for resale in the same condition as received;
- – Purchases of goods and services for resale in the same condition as received;
- + Receipts for industrial work done or industrial services rendered to others;
- + Other revenues;
- + Value of own-account fixed assets;
- + Change in work-in-progress;
- + Change in inventories of finished goods;
- + Change in inventories of goods purchased for resale in the same condition as received.

Physical quantity measures of output are recommended where the products are homogeneous and where quality remains constant over time, e.g. many outputs from mining activity.

Availability of appropriate producer price indices (PPIs)

An essential prerequisite for the compilation of the IIP volume index is a producer price index at the required level of frequency and disaggregation – refer discussion on PPIs below in (e) below. PPIs directly measure product prices from the producer (both input and output product prices of the production process) and quality changes are usually taken into account.

The United Nations 2010 *International Recommendations* specifies that such a price deflator should be specific to the group of products to which it is applied (e.g. by industry activity, whether produced for domestic or export markets, etc.). The Recommendations also specify the application of the deflator at the lowest level possible, ideally not higher than ISIC class (4-digit) level.

National data sources

The two commonly used national sources of data are direct collection of data from enterprises by means of monthly surveys or the use of administrative data sources, or some combination of the two. Data sources used to compile the IIP are tailored to the environment of each country and are influenced by a number of factors including: the quality of source data; the need to reduce reporting burden; resource constraints. These also impact on the use of a range of alternative survey methodologies such as complete enumeration or the use of sampling for units below a size cut-off based on value added, employment, etc.

Compilation methodologies

Note: Eurostat is currently leading work on the development of an Index of Services Production (ISP) that will be conceptually related to existing production indices for industry described above and for construction described below. As in the case of these existing indices, the target variable for the ISP is gross value added, though the same difficulties of compiling this on a monthly concept is similarly recognized and alternative gross output variables such as turnover will need to be used by most countries [Eurostat 2015a].

This work extends and updates the recommendations in the OECD Compilation Manual published in 2007 and will utilize services PPIs currently specified in the EU Short-term Statistics Regulations. At this stage it is expected that the requirement for EU Member states to forward national ISPs to Eurostat will commence around 2018.

Links to national compilation practices

Country	Organization	Title	Availability
Japan	Ministry of Economy, Trade and Industry	Current Survey of Production	UNSD Knowledge Base
Malaysia	Department of Statistics	Index of Industrial Production	
Norway	Statistics Norway	Index of Industrial Production	NSO website
Slovenia	Republic of Slovenia Statistical Office	Indices of Industrial Production	NSO website
Turkey	Turkish Statistical Institute	Industrial Production Index	Turkish Statistical Institute website

C. Production index for construction

Key international recommendations

Guidelines for Compiling the Monthly Index of Production in Construction, 2011, Eurostat

Methodology on Short-term Business Statistics, 2002, Eurostat

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

Notes on international recommendations: The 2011 Eurostat Guidelines outline a range of recommendations for the compilation of a monthly Index of Production in Construction (IPC), the compilation of which is a requirement of the Short-Term Statistics Regulation. The Regulation calls for the provision of the IPC disaggregated by type of construction into production of building construction and production of civil engineering. Eurostat's Methodology document further outlines difficulties deriving the target variable that are unique to construction. ISIC Rev. 4 provides the framework for the definition of the industry scope of the IIP.

Industry scope

The recommended industry scope of the index of industrial production in the context of ISIC Rev. 4/NACE Rev. 2 is:

- Building construction (ISIC Rev. 4 Section F/NACE Rev. 2 Division 41);
- Civil engineering (ISIC Rev. 4 Section F/NACE Rev. 2 Division 42).

Activity coverage

The IPC is intended to be a monthly volume trend in a value added series. In particular, it should exclude work undertaken by sub-contractors as this will lead to double counting within the construction sector. Including purchased materials violates the 'value added' principle, but does not introduce double counting within the construction sector.

Target variables for monthly data collection

The recommended target variable for the construction IPC is gross production value, as it is closer to value added and takes into account different qualities and quality changes of structures. The limitations of this variable are:

- Difficulties in valuing structures - can be based either on costs or on the final price of the structure;
- Ensuring that value data used actually reflects activity occurring in the reference period. Production in construction can last over long periods (even years) and the whole value (or costs, which are sometimes vague at the beginning of a project) has to be assigned to different reference periods. The consequence may be rough estimates with loose correlation to the actual production process;
- The importance of subcontracting which carries the risk of double counting of gross production value data;
- Index calculation with values makes it necessary to deflate the data. So, appropriate price indices have to be available in the course of index calculation;
- The difficulties of including work on repair, maintenance and improvement in value of production estimates.

In the absence of reliable gross production value data some countries use turnover data for the compilation of their IPC. However, construction firms usually receive either payments upon completion of work or regular progress or stage payments. As a result, turnover in construction is also determined to a large extent by agreements or contracts rather actual work on the ground undertaken during the reference period. Similarly, the problems of deflation are common to those for the value of gross production.

Notwithstanding the issues outlined above, the Eurostat Guidelines recommends gross production value as the target variable. However, the Guidelines recognize that this approach is very demanding and that most countries will not be able to give the required short-term information on production value in construction with sufficient quality. [Eurostat 2002, p. 98]

Availability of appropriate producer price indices (PPIs)

The Eurostat Guidelines recommends the use of a PPI output price index for deflating current values which shows the development of prices paid by clients to contractors. In its absence, a construction cost index[26] could be an alternative.

Compilation methodologies

Links to national compilation practices

Detailed reference metadata for construction volume indices provided by NSO's are available on the Eurostat website for 30 EU Member States at http://ec.europa.eu/eurostat/cache/metadata/Annexes/sts_esms_an6.htm

[26] A construction cost index shows the development of costs incurred by contractors in the construction process [Eurostat 2011].

D. Turnover index of industry by major division

Key international recommendations

International Recommendations for Industrial Statistics (IRIS), 2008, United Nations [AR]

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

Notes on international recommendations: The 2008 *IRIS* publication (in Chapter IV) describes the components of the turnover variable. *ISIC Rev. 4* provides the framework for the definition of the industry scope and major Divisions of the turnover index.

Industry scope

The recommended industry scope of the turnover index of industry in the context of ISIC Rev. 4 is:

- Mining and quarrying (section B);
- Manufacturing (section C);
- Electricity, gas, steam and air-conditioning supply (section D);
- Water supply, sewerage, waste management and remediation activities (section E).

Aggregated turnover data for establishments within these sections are compiled and disseminated at the two-digit Division level determined by their economic significance.

Activity coverage

The activity coverage of the turnover index by major Division relates to the percentage of total turnover accounted for by enterprises (government and non-government) whose predominant activity is in scope and from which data are obtained each month from either surveys or administrative data sources.

National practices for the actual percentage of total turnover obtained from in scope establishments are a function of: the characteristics of the branch of industry being measured; the frequency at which data are required; data collection difficulties; availability of data sources; and resources available to the statistical agency. For example, where a major proportion of total turnover is produced by a small number of large establishments' complete enumeration on the basis of a size cut-off is recommended. On the other hand, sampling techniques are often used where there are large numbers of small establishments. The 2008 United Nations *Country Practices* publication indicated that most countries reporting this information applied a cut-off of between 80% and 90% of total output or value added.

Target variables for monthly data collection

The target variable turnover index for industry is the value of shipments/turnover/sales of goods or services produced by the establishment during the reference period. Turnover includes:

- All duties and taxes on the goods or services invoiced by the unit with the exception of the value-added tax (VAT) invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover;
- All other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately on the invoice.

Reductions in price, rebates and discounts as well as the value of returned packing must be deducted.

Excluded are:

- Income classified as other operating income, financial income and extraordinary income in company accounts;
- Operating subsidies received from public authorities and institutions.

Availability of appropriate price indices

The deflator of turnover should be a price index representative of the industry activity class and reflecting price changes in the goods sold. PPIs are used for deflation. The price deflator for a given activity should be calculated as a weighted average of the price indices for the relevant category of goods sold through that activity in the current period.

It should be noted that the UNSD *Data Template* specifies the availability of the turnover index of industry by major Division in both value and volume terms. However, Eurostat's Short-term Statistics Regulation specifies the availability of the indicator only in terms of current turnover values. The reason for this is that a number of EU Member states base their Index of Industrial Production (IIP) on turnover rather than output.

In order to compile the turnover volume indices at the higher levels of ISIC, Rev.4 Sections B to E, the indices at the lowest level have to be aggregated. This aggregation is carried out by using weights based on value added (or turnover) share of each activity in the base year.

Compilation methodologies

Links to national compilation methodologies

Detailed metadata for the compilation of turnover indices for industry by 30 EU Member States and Candidate Countries is provided on the Eurostat *Short-term Business Statistics* website. The metadata outlines national concepts, data sources and compilation practices. Refer http://ec.europa.eu/eurostat/cache/metadata/Annexes/sts_esms_an3.htm.

E. Turnover index for retail trade by major division

Key international recommendations

International Recommendations for Distributive Trade Statistics, 2008, United Nations [AR]

Compilation Manual for an Index of Service Production, 2007, OECD

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

Notes on international recommendations: The format of the *International Recommendations* is similar to that of the United Nations *International Recommendations for the Index of Production* in that it outlines in detail the same elements of the recommendations (classifications, industry scope, variable definitions, compilation methodology, etc.) and options for data collection. All of these elements are consistent with those recommendations for other sectors within the framework of the SNA. The OECD *Compilation Manual* outlines recommendations for the compilation of an index of services production based on turnover as the target variable. *ISIC Rev. 4* provides the framework for the definition of the industry scope of the IIP.

Industry scope

The recommended industry scope of the turnover index for retail trade by major division in the context of ISIC Rev. 4 is Division 47 - Retail trade, except of motor vehicles and motorcycles. This comprises the following Groups:

471 - Retail sale in non-specialized stores.

472 - Retail sale of food, beverages and tobacco in specialized stores.

473 - Retail sale of automotive fuel in specialized stores.

474 - Retail sale of information and communications equipment in specialized stores.

475 - Retail sale of other household equipment in specialized stores.

476 - Retail sale of cultural and recreation goods in specialized stores.

477 - Retail sale of other goods in specialized stores.

478 - Retail sale via stalls and markets.

479 - Retail trade not in stores, stalls or markets.

Almost all European Union Member states include all Groups of Division 47 in their turnover index, though some have minor exclusions of some activity classes. A small number of countries extend the industry scope of their index to include retail activities in Division 45, Wholesale and retail trade and repair of motor vehicles and motor cycles.

In addition, many countries (including 30 EU Member states) have extended the coverage of their turnover indices to include other services industry activities. In terms of ISIC Rev. 4, service industries in their broadest sense are defined in terms of the following sections:

- Wholesale and retail trade, repair of motor vehicles and motorcycles (G);
- Transport and storage (H);

- Accommodation and food service activities (I);
- Information and communication (J);
- Financial and insurance activities (K);
- Real estate activities (L);
- Professional, scientific and technical activities (M);
- Administrative and support service activities (N);
- Public administration and defence, compulsory social security (O);
- Education (P);
- Human health and social work activities (Q);
- Arts, entertainment and recreation (R);
- Other service activities (S);
- Activities of households as employers; undifferentiated goods and services producing activities of households for own use, private households with employed persons (T).

Most EU Member state services turnover indices cover almost all market service activities in the above list, though coverage of less economically significant activities is excluded at the activity Class level. However, it should be noted that the current EU Short-Term Statistics Regulations only call for the provision of services turnover indices at current values. As mentioned above, Eurostat is currently leading work on the development of an Index of Services Production akin to existing production indices for industry and construction.

Target variables for monthly data collection

The target variable for the compilation of the turnover index for retail trade is obviously turnover. Turnover includes:

- All duties and taxes on the goods or services invoiced by the unit with the exception of the value-added tax (VAT) invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover;
- All other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately on the invoice.

Reductions in price, rebates and discounts as well as the value of returned packing must be deducted.

Excluded are:

- Income classified as other operating income, financial income and extraordinary income in company accounts;
- Operating subsidies received from public authorities and institutions.

Availability of appropriate price indices

The deflator of turnover should be a price index representative of the particular distributive trade activity class and reflecting price changes in the goods sold rather than in the trade services provided. Consumer price indices (CPI) or Retail price indices can be used as proxies for such deflators. The price deflator for a given activity should be calculated as a weighted average of the price indices for the relevant category of goods sold through that activity in the current period.

In order to compile the turnover volume indices at the higher levels of ISIC, Rev.4 Section G, the indices at the lowest level have to be aggregated. This aggregation is carried out by using weights based on value added (or turnover) share of each activity in the base year. For example, the index for Group 471, Retail sale in non-specialized stores, is derived from all the indices of the lower level (that is to say, classes included in group 471). The index of Section G will be calculated by taking a weighted average of all the component divisions in the Section.

Activity coverage

The activity coverage of the turnover index relates to the percentage of total turnover accounted for by enterprises whose predominant activity is in scope and from which data are obtained each month from either surveys or administrative data sources. For those countries providing such information in their metadata the activity coverage ranges from 70% to 90% of total turnover, with an average of around 85%. Almost all countries achieve this through the complete enumeration of large enterprises and a sample of smaller units based on a predetermined cut-off based either on employment or total annual turnover the level of which is a function of the size of the sector.

Compilation methodologies

Links to national compilation practices

Detailed reference metadata for turnover indices for industry provided by NSO's are available on the Eurostat website for 30 EU Member states at http://ec.europa.eu/eurostat/cache/metadata/Annexes/sts_esms_an3.htm.

F. Producer price index

Key international recommendations

Producer Price Index Manual: Theory and Practice, 2004, IMF et al [AR]

Handbook on Industrial Producer Price Indices, 2012, Eurostat

Methodological Guide for Developing Producer Price Indices for Services, 2014, OECD & Eurostat

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

Central Product Classification (CPC), Version 2, 2008, United Nations

Notes on international recommendations: The *PPI Manual* provides detailed information on index theory and provides general guidelines on the compilation of PPIs, consistent with those outlined in the CPI Manual. The *Methodological Guide* provides detailed information on the compilation of PPIs for service industries and products. In doing this it goes into considerable detail on problems/issues particularly unique to services such as constant quality pricing for the different service industries, etc. *ISIC Rev. 4* provides the framework for the definition of the industry scope of the IIP. *The CPC Ver. 2* provides the framework for products priced in the compilation of PPIs.

Sector coverage

In order to meet the requirements for the compilation of volume indices for industry production the ISIC Rev. 4 sector coverage of PPIs compiled by most countries around the globe, including those in the Arab Region, has been:

- Mining and quarrying (section B);
- Manufacturing (section C);
- Electricity, gas, steam and air-conditioning supply (section D);
- Water supply, sewerage, waste management and remediation activities (section E).

However, over the last two decades many countries (including 23 EU Member states) have extended their PPI coverage to cover a wide range of service industry activities. Services activity coverage of the PPIs extend to most of the market service activities outlined above in the context of turnover indices for retail trade. These cover either entire ISIC Sections or are restricted to economically significant Classes. In Europe, services PPIs will in future be used for the compilation of an Index of Services Production (ISP).

Target prices for data collection

The aim of a PPI is to measure average changes in transaction prices, that is, the *actual* prices paid to or received from producers for goods or services. Such prices include all discounts or rebates given. The target price for PPI data collection is the price at the time there is a change in ownership from the producer to the buyer. In reality, obtaining this target price is often complicated by a number of factors such volume discounts, surcharges, rebates, cash discounts, etc.

PPI compiling agencies attempt to obtain actual shipment prices received by the producer for the sales transaction of a good or service to a customer which net off the factors outlined previously to derive a net transaction price. Data availability may necessitate resort to a range of proxies which in some degree depart from the ideal price. Such prices include: contract prices, list prices, spot market prices, average prices, intracompany transfer prices and subsidized prices. There are a range of pricing methods used to compile PPIs (in particular for services) from available price data: These include: direct use of prices of repeated services; contract pricing; unit value method; percentage fee method; component pricing method; model pricing method; time based methods; margin pricing methods.

Product coverage

PPIs cover products and services that are produced in the reporting country and sold to the domestic and export markets. Price quotes are obtained each reporting period covering commodities across commodity groupings in product classifications such as the CPC. Enterprises from where price quote are obtained are selected to ensure in total they account for a high percentage of the domestic output (or turnover) for each observed product – normally in the range of 60% to 90%.

Compilation methodologies

Links to national compilation practices

The OECD publication, Producer Price Indices: Comparative Methodological Analysis, [OECD 2011] complements UN guidelines on PPIs and provides an overview of the main conceptual elements, information on basic data and an outline of the main compilation issues. The publication also provides a comparison of methodologies used by 34 OECD Member countries in the collection and compilation of PPIs as well as links to national websites where more detailed metadata can be obtained.

Source: OECD website, available at http://www.oecd.org/std/prices-ppp/48370389.pdf.

G. Import and export price indices

Key international recommendations

Export and Import Price Index Manual: Theory and Practice, 2009, IMF

International Merchandise Trade Statistics: Concepts and Definitions, 2010, UNSD [AR]

International Merchandise Trade Statistics: Compilers Manual, 2012, UNSD

Manual on Statistics of International Trade in Services (MSITS), 2010, UNSD [AR]

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

Central Product Classification (CPC), Version 2, 2008, United Nations

Extended Balance of Payments Services Classification (EBOPS), 2010, UNSD [AR]

Notes on international recommendations: The 2009 *IMF Manual* provides detailed information on index theory and provides general guidelines on the compilation of import and export price indices consistent with those outlined in the CPI and PPI Manuals. *MSITS*, whilst providing very little information on price indices for services imports/exports, outlines in detail data sources from where services trade data are obtained. The *CPC Ver. 2* provides the framework for products priced in the compilation of import/export price indices. *EBOPS* 2010 outlines the 12 broad groups of services specified in the IMF's current Balance of Payments Manual (BPM6). *ISIC Rev. 4* provides the framework for the selection of enterprises/establishments from which price data may be obtained.

Product coverage

Ideally, import-export price indices (XMPIs) should cover all of a country's international trade in goods and services, though in many countries the XMPIs are limited to the goods trade captured by customs authorities, and transport and insurance services provided on imports. However, the need to broaden the product scope is heightened by the expansion in international trade in services such as transport, communication, medical care, tourism, and financial and business services. The need is to monitor prices of a sample of representative items (based on a product classification such as the CPC) from a sample of representative establishments.

Export price indices

All types of transportable goods and services purchased by non-residents from residents. Goods exported without change of ownership for significant processing by non-residents and subsequent reimports are included.

Import price indices

All types of transportable goods and services purchased by residents from non-residents. Goods imported without change of ownership for significant processing by residents and subsequent re-export are included.

Target prices for data collection

Export price indices

Non-resident view, purchasers' prices at the border of the exporting country, including taxes less subsidies on exports, and including transport and insurance from the production location to the border of the economic territory.

Resident view, basic prices at the border of the exporting country, excluding taxes less subsidies on exports and non-invoiced additional services.

Import price indices

Non-resident view, basic prices at the border of the exporting country.

Resident view, purchasers' prices at the border of the using country, including international transport and insurance as well as taxes less subsidies on imports. [IMF 2009, p. 349]

Compilation methodologies

Links to national compilation practices

Country	Organization	Title	Availability
Australia	Australian Bureau of Statistics	International Trade Price Indices	ABS website[1]
Canada	Statistics Canada	International Merchandise Trade Price Index	Statistics Canada website[2]
Singapore	Statistics Singapore	Import and Export Price indices	Statistics Singapore website[3]
United States	Bureau of Labour Statistics	Import/Export Price Indices	http://www.bls.gov/mxp/home.htm

1. Available at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6457.0Explanatory%20Notes1Mar%202016?OpenDocument.
2. Available at: http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=2203.
3. Available at: http://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/prices/ip-e42.pdf.

H. Residential property price index

Key international recommendation

Handbook on Residential Property Price Indices (RPPIs), 2013, Eurostat *et al*

Notes on international recommendations: The *RPPI Handbook* provides practical guidance on the compilation of house price indices and also aims to increase international comparability of residential property price indices. The Handbook outlines the different user needs, details on data needs and methods, and provides recommendations on scope, weights, etc. In particular, the Handbook provides information on the advantages and disadvantages of a range of administrative and other data sources that are commonly used to compile an RPPI. Finally, the Handbook presents a number of country case studies on RPPIs that have been compiled in Canada, Germany, Japan, United Kingdom, India, Colombia and South Africa.

The Handbook emphasizes that because of the difficulties resulting from the uniqueness of each dwelling unit it is not possible to construct a "perfect" RPPI. Countries will only be able to construct an approximation to the theoretically ideal index for each purpose.

Activity coverage

The activity coverage of a country's RPPI is a trade-off between the intended aims of the index and the availability and quality of data which are derived primarily from administrative and other non-survey sources. Activity coverage encompasses a range of issues such as whether:

- All properties are covered irrespective of whether the property is owned outright or being funded by a mortgage;
- It covers existing properties or only those recently built;
- It covers country-wide property sales or just those in a particular region;
- All price ranges are covered.

The Handbook identifies two separate types of RPPI: a constant quality price index for the stock of residential housing at a particular moment in time, and a constant quality price index for residential property sales that took place during a particular period of time. The construction of these two types of index will be different. In particular, the weighting associated with the two types will differ.

A price index which is required to measure wealth associated with the ownership of residential property should cover all residential property, that is, both existing properties and properties which have been recently built. This is also the case for an index used as a financial stability indicator.

A price index required for measuring real investment in the residential real estate industry should cover sales of new property. The construction part of new housing produced is part of gross investment. The cost of the land, apart from the value of any improvements made to this element, should be excluded for this purpose. A price index for the sales of both new and existing houses is required in order to construct real output measures for the activities of real estate agents in selling new and existing houses to purchasers. The scope of the index for this application should cover both the structure and land values of the residential property sales.

A price index restricted to new properties is also appropriate when a residential property price index is an input into a CPI for the measurement of owner-occupier housing costs on a net-acquisition cost basis, that is, where the CPI covers the cost of acquiring properties which are new to the owner-occupier housing market.

Types of RPPIs required for deflation and CPI construction

RPPIs are needed in the construction of a CPI and to deflate several value flows and stock holdings in the national accounts. For both CPI and national accounts purposes, it will be useful or necessary to have a decomposition of the price indices into structures and land components. More specifically, it would be useful to be able to construct the following set of RPPIs:

- A price index for the total stock of residential housing at a particular moment in time, which is needed for estimating real changes of the economy's stock of residential housing, a component of a nation's real wealth;
- A price index for the owner occupied stock of residential housing, which is needed to construct estimates for the value of owner occupied housing (OOH) services based on user cost or opportunity cost principles;
- A price index for residential property sales (both newly built and existing dwelling units) that took place during a given period of time, which is needed for estimating the real output of the residential real estate services sector;
- A price index for the sales of newly-built residential properties during a given period of time, which is required if a broadly defined net acquisitions approach is used where both the structures and land components would be included in the purchase;
- A price index for the structures component of newly-built residential properties that were sold during a given period of time, which is needed for a narrowly defined net acquisitions approach where only the structures component would be included in the purchase.

As with the compilation of a price deflator for the compilation of a Production index for construction described above, there are numerous factors that make compilation of a residential property price index based on constant quality particularly difficult for housing. These include differences in: *area of the structure* (in squared feet or in meters squared); *area of the land* that the structure sits on; *location* of the property; *age* of the structure; *type of structure*; *materials used* in the construction of the house; and *other price determining characteristics* such as the number of bedrooms, the number of bathrooms, a garage, a swimming pool, air conditioning, distance to amenities, etc.

Four main methods have been suggested in the literature to control for changes in the amounts of the property characteristics:

- Stratification or mix adjustment;
- Repeat sales methods;
- Hedonic regression methods;
- The use of property assessment information.

Target prices

The process of buying and selling a property normally takes place over a period of several months or more. The particular stage in this process at which the price is entered into an index will depend on the source of the data and this has consequences for what is being measured and for the comparability of different indices. Price data for a residential property price index may be taken at the following stages:

- As soon as the property is on the market (advertised or asking price). *Typical data sources*: newspapers, real estate agents;
- Mortgage applications. *Typical data source*: mortgage lenders;
- Mortgage approved. *Typical data source*: mortgage lenders;
- Signing of binding contract. *Typical data source:* lawyers, notaries;
- Transaction completed. *Typical data sources*: land registries, tax authorities.

Each source of price data has its advantages and disadvantages. For example, a disadvantage of advertised prices and prices on mortgage applications and approvals is that not all of the advertised prices will end in transactions, and the price may differ from the final negotiated transaction price.

Weights

A price index which is required to measure the *wealth* associated with the ownership of residential property should be *stock-weighted*. A *stock-weighted* index is also appropriate for a financial stability indicator, in particular for an index which is being used to identify property price bubbles.

A price index which is required for measuring the *real output* of the residential real estate construction industry should be *sales-weighted*. A sales-weighted index is also appropriate for a consumer price index (CPI) that follows an acquisitions approach.

Compilation methodologies

Because of the high cost of undertaking purpose-designed surveys of house prices, the approaches adopted by most statistical agencies and others to construct RPPIs have been mainly a function of the house price data sets generated by the legal and other processes associated with buying a house, such as those outlined above.

Links to national compilation practices

Country	Organization	Title	Availability
Australia	Australian Bureau of Statistics	Residential Property Price Indices: Eight Capital Cities	ABS website[1]
India	Reserve Bank of India	All India House Price Index	RBI website[2]
Turkey	Central Bank	House Price Index for Turkey	Refer Central Bank website

In addition to the above national methodologies, Eurostat has collected national metadata for Housing Price Statistics for 29 EU Member States. This metadata is available at http://ec.europa.eu/eurostat/cache/metadata/en/prc_hps_esms.htm.

1. http://www.abs.gov.au/ausstats/abs@.nsf/mf/6416.0.
2. https://www.rbi.org.in/SCRIPTS/BS_ViewBulletin.aspx?Id=15182.

I. Employment by activity

Key international recommendations

Resolution concerning statistics of labour force, employment, unemployment and underemployment, 13th ICLS, 1982, ILO [AR]

Resolution concerning statistics of work, employment and labour underutilization, 19th ICLS, 2013, ILO [AR]

Labour force surveys - Source of statistics of the labour force and its components (SSM3), 2011 edition, ILO

International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008, United Nations [AR]

International Standard Classification of Occupations, 2008 (ISCO-08), 2007, ILO [AR]

Key concepts related to employment by activity

The current international standard for employment statistics are outlined in the Resolution of the 19th ICLS in 2013 (cited above). This supersedes the previous 1982 Resolution. Amongst other things the new Resolution defines the statistical concept of work for reference purposes and provides operational concepts, definitions and guidelines for distinct subsets of work activities, referred to as *forms of work*. It also provides guidelines for related classifications of the population according to their labour force status and main form of work.

The new Resolution outlined a number of concepts including work, forms or work, persons, job (or work activity), main job, time units, labour force status, in employment, etc. The concepts directly related to employment by activity are outlined below.

Work

Work comprises any activity performed by persons of any sex and age to produce goods or to provide services for use by others or for own use.

(a) Work is defined irrespective of its formal or informal character or the legality of the activity;

(b) Work excludes activities that do not involve producing goods or services (e.g. begging and stealing), self-care (e.g. personal grooming and hygiene) and activities that cannot be performed by another person on one's own behalf (e.g. sleeping, learning and activities for own recreation);

(c) The concept of work is aligned with the General production boundary as defined in the System of National Accounts 2008 (2008 SNA) and its concept of economic unit that distinguishes between:

  (i) Market units (i.e. corporations, quasi-corporations and household unincorporated market enterprises);
  (ii) Non-market units (i.e. government and non-profit institutions serving households);
  (iii) Households that produce goods or services for own final use.

(d) Work can be performed in any kind of economic unit.

Forms of work

The new standard identifies five mutually exclusive forms of work for separate measurement. These forms of work are distinguished on the basis of the intended destination of the production (for own final use; or for use by others, i.e. other economic units) and the nature of the transaction (i.e. monetary or non-monetary transactions, and transfers):

(a) Own-use production work comprising production of goods and services for own final use;

(b) Employment work comprising work performed for others in exchange for pay or profit;

(c) Unpaid trainee work comprising work performed for others without pay to acquire workplace experience or skills;

(d) Volunteer work comprising non-compulsory work performed for others without pay;

(e) Other work activities. These include activities such as unpaid community service and unpaid work by prisoners, when ordered by a court or similar authority, and unpaid military or alternative civilian service, which may be treated as a distinct form of work for measurement (such as compulsory work performed without pay for others).

Persons may engage in one or more forms of work in parallel or consecutively.

Own-use production of goods, employment, unpaid trainee work, a part of volunteer work and "other work activities" form the basis for the preparation of national production accounts within the SNA 2008 production boundary. Own-use provision of services and the remaining part of volunteer work complete the national production accounts, i.e. beyond the 2008 SNA production boundary but inside the General production boundary

The form of work identified as employment sets the reference scope of activities for labour force statistics. The concept labour force refers to the current supply of labour for the production of goods and services in exchange for pay or profit.

Persons in employment

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, flexi time 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 performing the work or indirectly to a household or family member.

Employed persons on "temporary absence" during the short reference period refers to those who, having already worked in their present job, were "not at work" for a short duration but maintained a job attachment during their absence. In such cases:

(a) "Job attachment" is established on the basis of the reason for the absence and in the case of certain reasons, the continued receipt of remuneration, and/or the total duration of the absence as self-declared or reported, depending on the statistical source;

(b) The reasons for absence that are by their nature usually of short duration, and where "job attachment" is maintained, include those such as sick leave due to own illness or injury (including occupational); public holidays, vacation or annual leave; and periods of maternity or paternity leave as specified by legislation;

(c) Reasons for absence where the "job attachment" requires further testing, include among others: parental leave, educational leave, care for others, other personal absences, strikes or lockouts, reduction in economic activity (e.g. temporary lay-off, slack work), disorganization or suspension of work (e.g. due to bad weather, mechanical, electrical or communication breakdown, problems with information and communication technology, shortage of raw materials or fuels):

  (i) For these reasons, a further test of receipt of remuneration and/or a duration threshold should be used. The threshold should be, in general, not greater than three months taking into account periods of statutory leave entitlement specified by legislation or commonly practiced, and/or the length of the employment season so as to permit the monitoring of seasonal patterns. Where the return to employment in the same economic unit is guaranteed this threshold may be greater than three months;

  (ii) For operational purposes, where the total duration of the absence is not known, the elapsed duration may be used.

Included in employment are:

(a) Persons who work for pay or profit while on training or skills-enhancement activities required by the job or for another job in the same economic unit, such persons are considered as employed "at work" in accordance with the international statistical standards on working time;

(b) Apprentices, interns or trainees who work for pay in cash or in kind;

(c) Persons who work for pay or profit through employment promotion programmes;

(d) Persons who work in their own economic units to produce goods intended mainly for sale or barter, even if part of the output is consumed by the household or family;

(e) Persons with seasonal jobs during the off season, if they continue to perform some tasks and duties of the job, excluding, however, fulfilment of legal or administrative obligations (e.g. pay taxes), irrespective of receipt of remuneration;

(f) Persons who work for pay or profit payable to the household or family:

  (i) In market units operated by a family member living in the same or in another household; or

  (ii) Performing tasks or duties of an employee job held by a family member living in the same or in another household;

(g) Regular members of the armed forces and persons on military or alternative civilian service who perform this work for pay in cash or in kind.

Excluded from employment are:

(a) Apprentices, interns and trainees who work without pay in cash or in kind;

(b) Participants in skills training or retraining schemes within employment promotion programmes, when not engaged in the production process of an economic unit;

(c) Persons who are required to perform work as a condition of continued receipt of a government social benefit such as unemployment insurance;

(d) Persons receiving transfers, in cash or in kind, not related to employment;

(e) Persons with seasonal jobs during the off season, if they cease to perform the tasks and duties of the job;

(f) Persons who retain a right to return to the same economic unit but who were absent, when the total duration of the absence exceeds the specified threshold and/or if the test of receipt of remuneration is not fulfilled. For analytical purposes, it may be useful to collect information on total duration of absence, reason for absence, benefits received, etc.;

(g) Persons on indefinite lay-off who do not have an assurance of return to employment with the same economic unit.

Data collection

To monitor labour markets and work patterns, the Resolution states that the following variables should be collected as relevant on a:

(a) *A sub-annual basis*, main aggregates of employment, the labour force, labour underutilization, including unemployment, and subsistence foodstuff producers, in order to monitor short-term trends and seasonal variations (e.g. high and low season, quarterly);

(b) *An annual basis*, detailed statistics of the labour force and of labour underutilization, including unemployment, that permit the structural analysis of labour markets and statistics of working time in relation to the total number of jobs/work activities contributing to production within the SNA production boundary in order to compile national accounts;

(c) *A less frequent basis*, depending on national circumstances, for the purpose of in-depth analysis, benchmarking and comprehensive macro-socio-economic estimations, statistics on:

  (i) Participation and working time in own-use production work, unpaid trainee work and volunteer work;

  (ii) Particular topics, such as labour migration, child labour, transition in and out of employment, youth, gender issues in work, household characteristics, work in rural areas, the relationship between employment, income and other economic and social characteristics, etc.

Population coverage

In general, statistics of work should cover the resident population comprising all persons who are *usual residents* of the country, regardless of sex, country of origin, nationality, citizenship or geographic location of their place of work. This includes usual residents who work outside the country (e.g. cross-border workers, seasonal workers, other short-term migrant workers, volunteer workers, nomads).

In countries with a significant in-flow of short-term or temporary migrant workers, employment statistics should be supplemented to the extent possible with information about the employment characteristics of non-usual residents working in the national territory, so as to permit analysis of their situation and impact on the labour market.

For complete national production accounts, volume of work should cover all forms of work performed by persons working in *resident producer units*, regardless of sex, country of origin, nationality, citizenship or place of usual

residence. This comprises all jobs/work activities, whether main or secondary, including those performed by non-usual residents working in resident producer units.

In specifying the concepts of *usual residence* and *resident producer units*, countries should aim to maintain coherence with international standards for population statistics and the system of national accounts. In principle, therefore, the scope of the statistics includes the population living in private households and in collective living quarters, covering both the civilian population and the armed forces. Countries should endeavor to use all available sources to produce statistics with the widest population coverage.

Age limits

In principle, the national system of work statistics should cover the work activities of the population in all age groups. To serve different policy concerns, separate statistics are needed for the working-age population and, where relevant, for children in productive activities as specified in the international statistical standards on the topic.

To determine the *working-age population*:

(a) The lower age limit should be set taking into consideration the minimum age for employment and exceptions specified in national laws or regulations, or the age of completion of compulsory schooling;

(b) No upper age limit should be set, so as to permit comprehensive coverage of work activities of the adult population and to examine transitions between employment and retirement.

The lower age limit for the collection of statistics, however, may differ according to whether or not a separate programme exists for child labour statistics.

Classifications

The Resolution recommends the use of the following main international classifications directly, or national classifications that adhere to them, or classifications that can are convertible to them:

(a) International Classification of Status in Employment (ICSE), 1993;

(b) International Standard Classification of Occupations (ISCO), 2008;

(c) International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4

Compilation methodologies

Links to national compilation practices

The ILO online publication, *Sources and Methods: Labour Statistics*, presents methodological descriptions of statistics of employment, unemployment, underemployment, hours of work etc. derived from labour force and household surveys, disseminated on the ILO website. Information has been provided by each country within standard headings to facilitate comparisons on national practices. The website also includes national labour force questionnaires and further links to more detailed national metadata. The website contains descriptions for 160 countries and territories and 169 surveys. Available at http://laborsta.ilo.org/applv8/data/SSM3_NEW/E/SSM3.html.

Even more detailed national metadata in a standard format for 33 EU Member states and Candidate Countries is available on the Eurostat website, *Employment and unemployment (Labour Force Survey).* Available at http://ec.europa.eu/eurostat/cache/metadata/EN/employ_esqrs.htm.

J. Household debt

Key international recommendations

System of National Accounts 2008, IMF, World Bank, Eurostat, OECD, UNSD [AR]

OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth, OECD, 2013

OECD Guidelines for Micro Statistics on Household Wealth, OECD, 2013

There have been a number of recent international initiatives to place household debt statistics within the broader context of wealth statistics. These initiatives culminated in the development of the two related OECD publications cited above.

Statistics on household debt are derived by countries from two main sources, national accounts and household surveys of income and wealth[27] (including debt liabilities). National accounts provide macro statistics on household debt for the household sector as a whole. National accounts are compiled from a wide range of sources, most of which do not provide information on the distribution of debt for different population subgroups within the household sector. Income and wealth surveys collect microdata information from individual households, and are used to analyse the distribution of household wealth (including debt) across the population and to compare levels of wealth between various population subgroups. Such analyses support the development, implementation and evaluation of social and economic policies, particularly for potentially disadvantaged groups such as pensioners, one-parent families and the unemployed.

National accounts are designed to provide a systematic summary of economic activity of a country's economy and to present a statistical picture of the structure of the economy and the processes that make up domestic production and its distribution. Within the national accounts framework, the data show how the household sector relates to the corporate and government sectors and enables comparison with the rest of the world.

As the household survey and national accounts estimates of household wealth have been developed for different purposes, there are a number of differences in the resulting estimates of wealth [ABS 2013a, Appendix 4]. These differences are outlined in the two 2013 OECD framework and guidelines publications cited above. An example of an analysis of the differences between the two sources at the national level is available in Appendix 4 of the Australian Bureau of Statistics (ABS) 2013 publication, *Household Wealth and Wealth Distribution, 2011-12*. Much of the conceptual material in the ABS publication is also included in the OECD framework/guidelines.

Target concepts for household liabilities

The OECD Wealth Framework [OECD 2013, Table 16.3, p. 311] identifies the following target concepts for household liabilities:

W3.1 Owner-occupied residence loans
- W3.1.1 *Principal residence loans*
- W3.1.2 *Other owner-occupied residence loans*

W3.2 Other real estate loans

W3.3 Other investment loans
- W3.3.1 *Financial asset loans*
- W3.3.2 *Valuables loans*
- W3.3.3 *Intellectual property and other non-financial asset loans*

W3.4 Consumer durable loans
- W3.4.1 *Vehicle loans*
- W3.4.2 *Other consumer durable loans*

W3.5 Consumer credit loans and other liabilities
- W3.5.1 *Education loans*
- W3.5.2 *Other loans and liabilities*

[27] *Wealth* is the total stock of economic resources held at a point in time. It includes, for example, cash held, the value of unincorporated businesses and property owned, motor vehicles, shares, and other non-financial and financial assets. Debts and other liabilities are negative wealth, and their value is subtracted from the value of non-financial and financial assets when measuring wealth [OECD 2013, p. 43]. SNA 2008 refers to the wealth of an economy's inhabitants as being the levels of an economy's assets and liabilities at particular points of time [SNA 2008, para 1.2]. Wider concepts of wealth are also important for some types of analysis. These may look beyond assets and liabilities, as commonly understood, to other types of resources that people may possess [OECD 2013, p. 125].

This classification of loans by type is intended to reflect the main purpose for which the loan was taken out, not the form of security used to obtain the loan. However, the OECD Wealth Framework states that for some analysis, e.g. when considering the exposure of a household to different forms of risk and associated household behavior, it is also of interest to know the form of security or collateral used to obtain the loan. It therefore states that it is desirable to collect both the purposes for which a household obtained loans and the form of security used.

Measures of Household Debt

The 2014 Australian Bureau of Statistics publication, *Australian Social Trends* [ABS Cat. No. 4102.0] includes a chapter on *Trends in Household Debt*, which presents a number of measures of household debt derived from the Australian quarterly national accounts.

- *Average amount owed*: Derived from total household debt divided by the total resident population;
- *Debt compared with assets:* Total household debt expressed as a percentage of the value of total assets;
- *Debt compared with income:* Total household debt expressed as a ratio of gross disposable income received by households;
- *Interest compared with income:* Total amount of interest households paid on money they had borrowed compared to gross disposable income received by households.

Source: *Australian Social Trends* – available from http://www.abs.gov.au/ausstats/abs@.nsf/lookup/4102.0main+features202014#DSD.

In addition to the purpose and nature of the household debt, data are also derived from national accounts showing the institutional sector for which the debt was owed, namely: financial sector, government sector, rest of world, etc.

Recommended practices for data collection

The OECD Wealth Framework describes outlines a range of conceptual issues that need to be kept in mind in order to produce useful microdata on the various components of household stock of wealth and the flows contributing to changes in that stock, including debt [OECD 2013, p. 135]. These include issues such as valuation, time of recording, etc. Chapter 7 of the OECD publication then covers in detail practical issues related to data collection and provides several examples (in the form of information boxes) of recommended national practice. The OECD Wealth Guidelines publication provides even more information on recommended practices for data collection and examples of recommended national practice.

Finally, annex D of the OECD Wealth Guidelines presents the detailed results of a questionnaire designed by the Expert Group to provide an inventory of country methodologies for producing micro wealth statistics. The analysis presented contains information from 26 from countries and the European Central Bank.

As shown in annex 9 below, the only pilot country that compiles household debt data is Tunisia, though only on an annual basis. The indicators are derived from the country's annual national accounts which are compiled on the basis of SNA 1993. The recommended frequency for the availability of such data is quarterly.

Target variables for quarterly collection

According to the SNA 1993, debt is obtained as the sum of the following liability categories, whenever available/applicable in the financial balance sheet of the households and non-profit institutions serving households sector, such as: currency and deposits; securities other than shares, except financial derivatives; loans; insurance technical reserves; and other accounts payable. The debt of households mainly consists of home mortgage loans, but also other types of liabilities such as credit lines and credit cards, and other consumer credit (such as automobile loans or student loans). Loans may be classified length of maturity and purpose of lending [OECD 2016]. In this context the target variables requested by the OECD for quarterly collection of household debt statistics[28] are:

Total loans[29]

[28] For quarterly household debt statistics for 35 OECD Member countries and two non-Member states (Russian Federation and Lithuania) refer http://stats.oecd.org/Index.aspx?DataSetCode=QASA_7HH.

[29] More detailed metadata/definitions for each of the following items is available at http://www.oecd.org/statistics/data-collection/7HH_OECD_Guidelines.pdf.

Short-term loans up to one year [SNA 2008, para. 11.79]

Consumer credit up to one year

Revolving credit up to one year

Non-revolving credit up to one year

Short-term loans for other purposes

Long-term loans (more than one year) [SNA 2008, para. 11.79a]

Consumer credit more than one year

Loans for house purchasing

Long-term loans for other purposes

Most of the OECD Member countries compile the Households' assets and liabilities questionnaire according to the SNA 2008/ESA 2010 (European System of Accounts). OECD data collection is limited to quarterly data for the Households and Non-Profit Institutions Serving Households (NPISHs) sector and to annual data for the households sector, which are compiled by the country's NSO.

3. Institutional recommendations – resource implications

Implementation of the infrastructure and statistical recommendations outlined has obvious resource implications. However, as mentioned above (in section O.3), the assessment reports for all of the pilot countries highlighted barriers posed by insufficient staff, financial or IT resource base for the development and ongoing maintenance of any additional STSs. Such issues manifested themselves through cuts in funding, staff vacancies not being filled and high rates of staff turnover in some instances. These issues were also emphasized by pilot country delegates at the February 2016 Expert Group Meeting in Jordan.

Institutional issues that impact on the availability and quality of STSs disseminated by NSOs encompass a wide range of topics including: legislative/regulatory environment; coordination processes within the statistical agency and between statistical agencies that make up the national statistical system; ongoing (annual) and strategic planning processes; ongoing user/data provider consultation processes/mechanisms. A detailed discussion of all these issues with respect to the priority STSs is beyond the scope of the current *Regional Guidelines*. However, the experiences of these countries in the Arab Region are very similar to those expressed by many countries that provided input to the development of the *Implementation Plan for the Regional Programme for the Improvement of Economic Statistics in Asia and the Pacific* [ESCAP 2012]. This plan was developed by the UN ESCAP Steering Group for the Regional programme for Economic Statistics and approved by the Commission's Committee on Statistics in 2012. The *Implementation Plan* highlighted the need for effective statistical advocacy and enhanced political support, within and beyond the NSS. Improvements in these areas entailed a number of related institutional interventions necessary to improve the operations of the national statistical system as a whole and not only that segment responsible for the collection, processing and dissemination of the priority STSs.[30] Such recommended institutional interventions include:

- The development of effective strategic planning processes such as a National Strategy for the Development of Statistics (NSDS);
- Effective ongoing user/data provider consultation processes/mechanisms;
- Effective coordination processes within the statistical agency, between statistical agencies that make up the national statistical system, with other countries in the Arab Region, and with relevant regional and global bodies.

The experience of other regions (such as Asia and the Pacific) has shown that an effective NSDS is a starting point for advocating, consulting and coordinating with national stakeholders necessary for obtaining the

[30] The UN ESCAP Implementation Plan draws a clear distinction between such institutional interventions and technical interventions which primarily aim to develop the capacity of countries to improve specific economic indicators.

political support and financial commitment of national governments. The NSDS provides the framework for justifying resource requirements and monitoring their effective utilization.

While financial support for country-level development of the priority STSs will come primarily from domestic resources, donor support may also be required. Such support will only be forthcoming in the context of an effective NSDS or other forms of national statistical development strategy.

Improving frequency and timeliness of priority STSs – No "magic bullet"

Two of the key issues identified by the pilot countries in the assessment reports and emphasized by national delegates at the February 2016 EGM in Jordan were the need to improve the frequency and timeliness of existing STSs. The need for improvement in these two areas has been the focus of considerable activity by NSOs around the globe as well as international organizations such as the IMF, OECD and Eurostat. This activity has shown that there is no single quick "magic bullet" or one size fits all approach that would result in significant improvements in both timeliness and frequency in the dissemination of STSs.

Around 2005 the work of the OECD Short-term Economic Statistics Expert Group (STESEG) identified that improvements required long-term changes in one or more key processes, namely: frame selection and administrative data use; questionnaire design; sample design and selection; reference period and due dates; data collection and validation (editing); estimation; evaluation and dissemination. The importance and priority given to each of these key processes was highly dependent on each countries statistical environment and resource circumstances. Ideally, priorities should be determined by the statistical agency in the context of an NSDS or similar strategic planning process. Similarly, quality deficiencies (including issues of frequency and timeliness) of STSs currently compiled and disseminated should be determined using a quality assessment framework that reviews a range of quality dimensions.

In this context STESEG developed the Short-term Economic Statistics (STES) Timeliness Framework which is a structured and regularly updated database of documents and papers collected from NSOs (primarily OECD and EU Member States), statistical journals and proceedings from statistical conferences by a STESEG taskforce that outlined country experience and recommended practice to improve STS timeliness.

The STES Timeliness Framework (available at http://www.oecd.org/std/short-termeconomicstatisticsstestimeliness framework.htm#register) is maintained by the OECD Statistics Directorate and contains **l**inks to a very extensive array of documentation on proven operational methods to improve timeliness or reduce costs for short-term economic statistics.

PART III

EARLY WARNING SYSTEMS

Introduction

Part III of the *Regional Guidelines* discusses early warning systems that have been developed by statistical agencies around the globe. It commences with a discussion of international initiatives carried out over the last seven years to develop international guidelines and recommendations for the development of the components of early warning systems and how the indicators can be used by government and non-government policy makers. This is followed by a more detailed review of the major elements/issues in the compilation of early warning systems of each of these components, in particular, flash estimates, consumer and business confidence indicators, and business cycle indicators.

To date, experience in the compilation of these components of early warning systems by countries in the Arab Region has been restricted to the development and dissemination of consumer and business confidence indicators by a small number of countries. In this context the *Regional Guidelines* presents the experiences of countries in other regions which highlight the potential benefits for ESCWA countries.

SECTION R. INTERNATIONAL INITIATIVES ON THE DEVELOPMENT OF EARLY WARNING SYSTEMS

An early warning system comprises sets of economic indicators that provide advance notice of an incident. The early warning system is intended to detect any possible movements in economic phenomena (e.g. business cycle, turning points) as early as possible. Such a system often includes a range or network of indicators, depending on the circumstances or the position in the business cycle, some of which can provide information about certain aspects of future movements in economic phenomena [Eurostat 2012]. The components of early warning systems which countries may choose to implement are outlined above in diagram 1 and include STS's compiled as flash or rapid estimates and/or other specific early warning indicators such as consumer/business sentiment indicators, composite business cycle indicators and composite leading indicators.

In a programme statement presented at the 40th session of the UNSC in 2009, UNSD called for swift and coordinated statistical initiatives by countries and international organizations in response to the then current global economic and financial crisis. These initiatives focused on identifying and remedying data gaps to monitor the unprecedented financial and economic turmoil, to allow for timely and measured policy responses, as well as to improve the dissemination and communication of available relevant information.

The 2009 UNSD work programme included a number of international seminars on the methodology for generating high quality rapid (or 'flash') estimates of economic performance, their international comparability, the communication strategy of such estimates and the development of additional synthetic indicators on the performance of the real sector of the economy and the financial markets for effective monitoring. Three seminars were held: Canada, May 2009; Netherlands, December 2009; and the Russian Federation, November 2010.[31]

Work on this initiative was undertaken under a joint initiative by UNSD and Eurostat in collaboration with Statistics Canada, Statistics Netherlands, and Russian Federal State Statistics Service, based on recommendations flowing out of the three international seminars. The initiative comprised four related themes:

- Formulation of a data template and analytical indicators – refer annex 7 below;
- Compilation of rapid estimates;
- Development of tendency surveys (consumer and business);
- Development of business cycle composite indicators.

Work on *Early Warning and Business Cycle Indicators* was presented to the 2011 UNSC for endorsement.[32] Future work arising out of Commission deliberations included the establishment of an internationally accepted data and metadata template for short-term statistics for the purpose of macroeconomic surveillance. Deliverables identified comprised:

- The elaboration of an internationally accepted data template (of High Frequency Indicators) together with corresponding reference metadata;

[31] The International Seminar on Timeliness, Methodology and Comparability of Rapid Estimates of Economic Trends was held in Ottawa in May 2009. The second seminar discussed the results from a global assessment of the data template on the availability, timeliness, comparability and dissemination of high frequency indicators, which was carried out as a follow-up to the first meeting. This meeting also discussed a range of early warning and business cycle indicators and techniques to derive information for tracking economic developments and identified key areas that would require further work. To continue the work started in breakout sessions of the Netherlands seminar, four working groups were established, namely: (i) rapid estimates; (ii) business cycle composite indicators (BCCIs); (iii) tendency surveys; and, iv) data template and analytical indicators for assessing rapid economic changes. The third and final seminar reviewed the outcome of the work of the working groups and formulated conclusions and recommendations which were presented to the 2011 UNSC *[Concept Note,* third seminar – refer http://unstats.un.org/unsd/nationalaccount/workshops/2010/moscow/ac223-2.asp].

[32] Refer UNSC E/CN.3/2011/11 - http://unstats.un.org/unsd/statcom/doc11/2011-11-Short-termEcoIndicators-E.pdf.

- Preparation of a statistical guide to accompany the template and metadata to elaborate methodological descriptions and the use(s) of individual short-term statistics;
- Update of the content of the UNSD *Knowledge Base*;
- Preparation of country reports on practices in establishing national central data hubs to provide a single access point for the NSS based on the internationally accepted data template on short-term statistics;
- Undertaking a global assessment of the current situation in countries with regard to the creation of national central data hubs.

The 42nd UNSC also approved the preparation of four handbooks that would provide guidance, best practices and harmonized principles to help countries compile and report internationally comparable short-term statistics.[33] The guidelines were prepared by technical expert groups under the aegis of an ad hoc advisory expert group on short-term statistics (Canada, Netherlands, Russia, Eurostat and UNSD). The handbooks were:

1. Data Template and Metadata for Short-term Statistics[34]

The *Data Template and Metadata for Short-term Statistics* outlines methodological descriptions and the use(s) of individual short-term statistics. The template 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 data template of STSs (refer annex 7) provides a framework outlining the range of possible indicators that an individual country may choose to compile and disseminate, based on the needs and priorities of national government and non-government users. The extensive range of international statistical standards and guidelines which provides the conceptual and methodological basis for their development are described below in annex 10.

One of the key issues in making these indicators available to users concerns their timeliness with respect to the reference period. The need for their dissemination as soon as possible after the end of the reference period has prompted to the development of a range of methodologies and statistical techniques to enable the initial release of the indicators in the form flash estimates or rapid estimates.

The draft *Data Template* was disseminated for public comment in 2015.

2. Handbook on Rapid Estimates[35]

The *Handbook on Rapid Estimates*, developed jointly by Eurostat and UNSD, provides international statistical guidance based on best practices and harmonized principles for the compilation and reporting of rapid estimates. The handbook explains the different typologies of rapid estimates, their methodological background, their technical construction, their characteristics and their usefulness for different purposes. The handbook outlines practical and suitable compilation methods and issues, draws on a wide range of experience and expertise, and benefits from recent theoretical and practical developments in the area. The handbook is intended to assist compilers in producing rapid estimates of key short-term macroeconomic indicators in a

[33] 8th Meeting of the Advisory Expert Group on National Accounts, 29-31 May 2013, Luxembourg, Agenda item: 10, Topic: Compilation of manuals and handbooks. Refer http://unstats.un.org/unsd/nationalaccount/aeg/2013/M8b-10.pdf.

[34] Refer UNSD publication, *Data Template and Metadata for Short-term Statistics*, UNSD, New York – refer http://unstats.un.org/unsd/nationalaccount/consultationDocs/Data_template_draft.pdf.

[35] For a description of the Handbook and the current status of development refer to presentation, *Introduction to Handbook on Rapid Estimates*, given by UNSD at the International Workshop of Short-term Economic Statistics, Beijing, 18-20 May 2015. Available at http://unstats.un.org/unsd/nationalaccount/workshops/2015/Beijing/S51-UNSD.pdf.

comparable manner, using best international practices, to serve as reliable international comparisons of economic performance and behaviour.

It is also intended to assist countries that plan to set up a more comprehensive system of estimates of key macroeconomic indicators by providing not only the methodological foundations for the compilation of rapid estimates, but also by giving practical guidance on individual steps and elements of the compilation process.

A draft of the handbook will be disseminated for public comment by the middle of 2016.

3. Handbook on Economic Tendency Surveys[36]

The *Handbook on Economic Tendency Surveys* builds and expands on the current guidelines of the European Commission and OECD on tendency surveys. The new handbook expands the scope of the existing guidelines to include more economic sectors (e.g. agriculture, energy) and explicitly focuses on the needs of developing countries in administering tendency surveys. It draws on a wide range of experience and expertise, and outlines harmonization practices, focusing in particular on the harmonization of the list of questions by economic activity. The handbook can be used as a guide for the process of setting up sample survey operations, data processing and analysis. The handbook also guides users on the applicability of tendency surveys with respect to macroeconomic situations and provide guidance for the dissemination of survey results. The handbook is intended to serve the needs of analytical users by making them aware of the statistical methods and techniques employed in tendency surveys and composite tendency indicators.

A draft of the handbook was disseminated for public comment at the end of 2015.

4. Handbook on Cyclical Composite Indicators[37]

There is no existing global statistical guidance that provides best practices and harmonized principles on the compilation and reporting of business cycle composite indicators. The *Handbook on Cyclical Composite Indicators* outlines a set of standards for the compilation and presentation of business cycle composite indicators to fill this gap. The handbook is intended for compilers and users of business cycle composite indicators. It draws on a wide range of experience and expertise, and outlines practical and suitable compilation methods and issues and benefits from recent theoretical and practical developments in the area. The handbook is intended to assist compilers in producing the business cycle composite indicators in a comparable way so that they can serve as reliable international comparisons of economic performance and behavior using best international practice. It is also intended to assist countries that plan to set up a more comprehensive system of business cycle measures by providing not only the methodological foundations for business cycle compilation, but also by giving practical guidance on individual steps and elements of the compilation process. Moreover, the handbook is intended to serve the needs of producers of short-term statistics and analytical users by making them aware of the statistical methods and techniques employed in the construction of composite indicators.

A draft of the handbook was disseminated for public comment early in 2016.

[36] A draft of the *Handbook on Economic Tendency Surveys* was presented at the at the International Workshop of Short-term Economic Statistics, Beijing, 18-20 May 2015 – refer http://unstats.un.org/unsd/nationalaccount/consultationDocs/draftETS-Handbook-May2014.pdf.

[37] For a description of the Handbook and the current status of development refer to presentation, *Introduction to Handbook on Composite Indicators*, given by UNSD at the International Workshop of Short-term Economic Statistics, Beijing, 18-20 May 2015. Available at http://unstats.un.org/unsd/nationalaccount/workshops/2015/Beijing/S31-UNSD.pdf.

SECTION S. FLASH ESTIMATES

1. What are flash estimates[38]

A *flash estimate* is an early estimate for an economic variable of interest over the most recent reference period. It is normally calculated on the basis of incomplete data and is compiled using a statistical or econometric model. The flash estimate should have a release date appreciably earlier than the first release date of the actual data for that variable. Flash estimates are compiled using the real-time data flow,[39] in such a way that an early picture of the present, the recent past or the near future can be formed.

Although it is likely calculated using a more incomplete set of information than the set used for traditional estimates, it is produced using the same methodologies that are employed for the regular estimates. Statistical techniques can help in adjusting the temporary incomplete observations.

Eurostat's *Handbook on Quarterly National Accounts* outlines a number of strategies for obtaining basic data in time to compile flash estimates. These comprise:

- More rapid supply of data by businesses;
- Derive survey estimates earlier, but with lower response rates;
- Use data for the first two months of the quarter;
- Make arrangements with sources of administrative by-product data to supply data for the whole quarter quicker or for only part of the quarter at an earlier date [Eurostat 2013].

The UNSD *Handbook on Rapid Estimates* [UNSD 2016] describes a range of statistical/econometric techniques that may be applied in lieu of these strategies, the underlying premise being that such techniques do not require resources during the data acquisition stage and theoretically only require an investment related to methodological research and information processing. These techniques are summarized below in (5) of this Section.

2. Flash estimates concepts

Flash estimates should not considered as a distinct set of indicators, but instead as part of a continuum in the release of key STSs, such as quarterly GDP, defined on the basis of the use of specific techniques to compensate for the non-availability of a complete data and the need to revise the estimates as more complete data becomes available. In this context data may be released as:

[38] Sometimes also referred to as rapid estimates, advanced estimates, early estimate. The term "flash estimate" will be used in the current *Regional Guidelines*. The term *flash estimate* is widely accepted by EU countries, but countries other regions also use other terms such as *preliminary estimate, first estimate, short-term forecast*, etc. Confusion often appears in relation to the term *preliminary* that is frequently used by a number of countries. Sometimes the term *preliminary* is used to indicate the rapid estimate of GDP, which is produced by applying statistical methods (extrapolations, adjustments etc.) on incomplete source data. In other cases, *preliminary* designates the regular set of QNA that are produced on the complete quarterly data set but which are not yet reconciled with the annual accounts [UNECE 2009].

[39] The *real-time data flow* at a specific point in time is the information set available to people (official statisticians, researcher, etc.). It includes soft, hard, financial data and it usually provides an incomplete data coverage of the reference period at a specific point in time. The real-time data flow is by construction unbalanced: ragged or jagged hedge data [Eurostat 2012].

Nowcasts	Nowcasting is a rapid evaluation produced during the current reference period *t* (the present) for a hard economic variable of interest observed for the same reference period *t* Nowcasting makes use of the real-time data flow available between *t* and *t*−1. Statistical or econometric models, different from the ones used for regular estimates, are considered as using either hard, soft, unconventional or financial data [Eurostat 2012]. Unlike forecasting,[40] which relies heavily on projections and assumptions about the future economic situation, nowcasting makes use of data that are already available for the period of study [ONS 2015].
Flash estimates/rapid estimates/early estimates	Refer definition above
First release (preliminary estimates)	A first release is the first official real-time release of an economic indicator of interest for the most recent reference period *t*, computed *after* $t + 1/2\Delta t$. It concerns the release of generally hard data[41] that are subject to possible further revisions but are produced using the same methodology of aggregation and construction as regular estimates [Eurostat 2012].
Second release	The second release utilizes more complete/final input series.
Third release (or final estimate)	The third release is the third official real-time release of an economic variable of interest for the most recent reference period. It concerns the release of generally hard data produced using the same methodology of aggregation and construction as for regular estimates. This release updates information published in the second estimate by using in most cases a full coverage of the sub-aggregates. It includes detailed output. The role of hard data is compulsory. In most cases this third release can also be called the 'final estimate'. However, this doesn't mean that the figures will not be revised further [Eurostat 2012].

The Special Data Dissemination Standard (SDDS) specifies the required timeliness for the initial QNA estimates at three months after the end of the quarter. The draft IMF QNA Manual states that flash estimates of the quarterly GDP should always be revised during the same quarter to incorporate more complete and updated short-term statistics that become available after its publication. The IMF Manual goes on to say that countries producing flash estimates should release at least one more release of the same quarter before the next quarter commences. The timing of the early and revised estimates should be decided on the basis of the timing of arrival of the short-term statistics.

Eurostat's QNA Handbook groups countries into two categories:

- Those that publish a preliminary estimate between 45 and 60 days and a second, revised, estimate at 90 days, usually at the same time as quarterly sector accounts;
- Those that publish only one preliminary estimate between 60 and 70 days.

From 2014, Eurostat's ESA 2010 Transmission Program required the publication of QNA at 60 days.

[40] *Forecasting* is the process of making statements about events whose actual outcomes (typically) have not yet been observed. A common place example might be an estimation for a statistical variable of interest related to a specified future date. Examples of forecasting methods are: naive forecast, judgmental methods, qualitative vs. quantitative methods and time series methods [Eurostat 2012].

[41] *Hard data*, also called factual data, refer to reliable and methodologically sound data taken from official or organizational statistics that are comparable and roughly independent from the way they were measured. *Soft data* are data in the form of qualitative information or quantitative information resulting from an approximation of economic phenomena through surveys and polls. Therefore, soft data are dependent on the way they are collected, for instance survey data.

Flash estimates are also published by some EU Member States prior to the preliminary estimates. They are part of a sequence of QNA estimates characterized by the different amount of basic data available at the time of compilation and the consequent trade-off between timeliness and accuracy. Flash estimates are only a part of the continuum of QNA releases because there are many subsequent releases before QNA estimates become truly final. This can only happen when the annual estimates become final and the seasonal and calendar adjustments have settled down. It can also be argued that the continuum begins prior to flash estimates if "nowcasts" compiled at, for example, the end of the quarter, and which are based on some combination of forecasts and actual basic data, are included.

The last point raises the question as to what differentiates flash estimates from earlier estimates, such as nowcasts. Eurostat's QNA Manual recommends that flash estimates must be based primarily on basic data for the reference quarter, and extrapolative techniques that do not use a relevant indicator should only play a relatively minor role. Such techniques should only be used as a last resort and then only to a minor extent.

3. Background

Flash estimates are currently compiled by many countries and international organizations around the globe for a range of STSs, in particular, estimates of quarterly GDP and CPIs. Because they are often compiled on partial or incomplete data the compilation of flash estimates highlights a number of key issues, namely, the:

- Trade-off between timeliness and the accuracy of the indicator;
- Need to revise the indicator as more complete data becomes available in subsequent releases of the data, the magnitude of the revisions and whether or not the revisions impact on the direction of the time series.

The compilation of flash estimates by NSOs is not a new phenomenon. For example, the 2001 IMF QNA Manual points out that the use of shortcut sources and methods has been a common feature of QNA compilation for some time in a number of countries. However, what is new is the more systematic and greater use of such techniques by a wider number of countries. Moreover, the use of these techniques is accompanied by closer scrutiny of the extent, magnitude and direction of data revisions flowing from the use of shortcut sources and techniques. The differences between flash estimates and traditional estimates can be defined according to the following dimensions:

- *Timeliness:* flash estimates are available earlier than the traditional estimates;
- *Accuracy:* there is a trade-off between timeliness and accuracy. Flash estimates are in general less accurate than traditional estimates. However, the loss in terms of accuracy is kept as small as possible;
- *Coverage:* the number of variables (breakdowns) covered by flash estimates is usually more limited than traditional estimates;
- *Information available:* flash estimates are based on a more limited set of information. Often the information related to the traditional estimates is not yet or fully available;
- *Estimation method:* due to the lack of direct information, flash estimates may rely more on econometric techniques.

However, the distinction between flash and traditional estimates is not always evident. In some cases, for example, flash estimates for one country may be available later than traditional first estimates for another country. On the other side, flash estimates differ from forecasts and leading indicators:

- Flash estimates refer to a past reference period (i.e., already finished);
- Flash estimates use the information related to the reference period;
- They rely, as much as possible, on the compilation techniques used for the successive traditional first estimates. [Eurostat 2008].

4. Relevance of flash estimates for policy formulation

The economic and financial crisis over the last ten years highlighted the importance of providing analysts and policy makers with early statistical information on economic developments. The time horizon within which monetary policy affects fully the economy is in the order of 1 – 2 years. The expectations channel of monetary policy works very fast. Before making any policy decision(s) central banks and other monetary authorities normally wait until information on changes in the economy is confirmed by more data. Flash estimates of GDP serves this purpose by confirming or reinforcing information available from partial, earlier data such as industrial output, retail sales, exports/imports, etc. There is therefore a need to provide a rough indication of economic stance by flash data in preference to accurate but less timely information. In this context flash estimates of GDP play a prominent role as an aggregate measure of economic activity. Such early information is needed even without crisis.

It should be remembered that the provision of flash estimates relatively soon after the end of the reference quarter only provide information on what happened in the past rather than where the economy is at the moment. Attempts to provide even more up-to-date information are made by national statistical agencies through the provision of nowcasts, coincident and leading indicators, business and consumer surveys, financial data, forecasting [Eurostat 2009].

Despite the need for prompt measurements of the current economic developments, timely but unreliable official estimates may lead to wrong decisions. As a result, substantial changes to flash estimates should be introduced as soon as possible, because policy decisions may change in accord with the revised estimate. The IMF QNA Manual emphasizes the practical concerns about educating users on the limitations of flash estimates and that the record of revisions for quarterly national accounts should be kept under scrutiny. The IMF Manual also points out that the use of shortcut sources and methods is a common feature of QNA compilation. As such flash estimates do not present any new conceptual issues. It is more a question of using a higher proportion of such sources and methods.

The Eurostat QNA Handbook emphasizes the fact that flash estimates of GDP are not just an earlier release of the quarterly accounts, but are in fact a different product. The rapid estimates of GDP require greater use of estimation methods because less source data are available. The difference between the normal estimation of quarterly accounts and flash estimates is essentially based on the differences in the statistical methods used [UNECE 2009].

5. UNSD recommendations/options with regard to flash estimate compilation techniques

The UNSD Handbook on Rapid Estimates describes in detail the wide range of statistical and econometric methods that may be applied to produce flash estimates for key economic variables such as GDP. The selection of the appropriate method is dependent on the time element and the availability of input series required for the compilation of the estimate.

The Handbook recommends that the information available when computing flash estimates should allow the possibility to replicate, even if in simplified way, the same compilation process used in the regular statistical process. Statistical methods used in compiling flash estimates should also be in line with the regular production process. Statistical methods can vary from simple aggregation techniques to regression methods, to temporal disaggregation and benchmarking, to grossing-up techniques applied to small or incomplete sampling scheme, etc.

The Handbook recommends that flash estimates should be assessed over a sufficiently long time interval, possible within a real-time exercise in order to analyze their behavior with respect to the first regular calculation. Particular attention has to be paid to the absences of a systematic bias between the flash estimates and the first regular estimates of the reference variable.

As mentioned above, the use of statistical models is regarded as the cheapest way of compiling timely flash estimates as they don't require resources during the data acquisition stage and only require an investment related to methodological research and information processing. Such statistical and econometric techniques may be grouped into three main categories.

Method based on techniques developed within time series analysis	These exclusively use estimates calculated on data without any hypothesized theoretical model suggested by economic theory. This method only uses the estimates made on previous occasions (if any). Methods that find specific sub-series within a time series, thereby permitting a good prediction of the overall time series to be made can also be placed within this category.
Methods which use both information obtained from units responding within a fixed time (timeliness respondents) and the estimates made on previous occasions	These models can be further classified into: • Methods based on the imputation of the variable values of the non-respondents units. Such methods can be based on a non-parametric approach, or on a suitable model. A relevant set of models are linear dynamic models; • Methods based on re-weighting techniques that correct weights assigned to timeliness respondents, so that they can also represent non-timeliness units in a suitable way. These weights can be based on super population models explaining either the stochastic process that generates the timeliness response, or the values of the target variable of the non-respondents unit at the current time. The probability of timeliness response could also be defined using non-parametric techniques.
Suitable econometric methods based on the use of the relationships between the target variables and proxy indicators used as early index of the target variables	This category includes a large variety of methods, from regression based methods to multivariate time series models.

The UNSD Handbook then describes the following specific models.

A. Rapid Estimates based on factor models

Factor analysis is a statistical method used to summarize the variability among a set of observed, correlated statistical variables in terms of a potentially lower number of latent variables called factors. The main assumption underlying the factor analysis is that there are some common driving forces which characterize a set of variables which are expressed by the factors. Factor analysis has been used for years as a powerful instrument for data reduction.

B. Rapid estimates based on regression models

Regression models describe the relationship between one or more variables (also called dependent variables, regressands and explained variables) and other variables (independent variables, regressors, explanatory variables). Such models have been originally defined in the linear context but they can also be generalized to the non-linear one.

C. Rapid Estimates Based on Multivariate time series models

These models include: Vector Autoregressive (VAR) models; Vector Error Correction Models (VECM); and Global VAR (GVAR).

D. Rapid estimates models based on data available at different frequencies

In some cases the indicator series can be available at a higher frequency than the target variable. For example, when nowcasting quarterly GDP, indicators such as monthly industrial production index, retail trade deflated turnover, tendency surveys, etc., which are usually available at frequency higher than quarterly. On the other hand, more reliable estimate of an indicator is available at lower frequency. This is often the case for national accounts where annual aggregates constitute the most reliable estimates being based on an exhaustive set of surveys, possibly integrated by other sources of information such as administrative data. In such a case, quarterly national accounts can be derived by distribution (temporal disaggregation methods) of annual data using relative quarterly proxy information. Both cases require the use of some statistical specific techniques dealing with models available at different time frequencies. These techniques include: temporal disaggregation methods; mixed frequency models.

E. Rapid Estimates based on available survey data

An obvious but more difficult way to construct a rapid estimate would be to speed up the production process. Most of short-term statistics (such as the IPI) are derived from survey data and obtaining quicker responses from enterprises is a time consuming process. The alternative is to apply a number of statistical techniques based on available survey data. Such techniques include the use of: non-parametric models, for example, to assign values to the aggregates of the non-respondent units; and super population models, based on re-weighting techniques that correct weights assigned to timeliness respondents, so that they can also represent non-timeliness units in a suitable way.

The UNSD Handbook outlines a number of very subjective issues that should be considered by a national statistical agency when deciding upon the model that is appropriate for compiling flash GDP estimates. These are that it should:

- Be as simple as possible;
- Have a clear economic interpretation. It is important to understand the economic rationale behind the model to be able correctly to appreciate the quality of the results, and to interpret and communicate them;
- Be robust and stable across time;
- Provide ‘accurate’ estimates, as evaluated historically and in real-time on the basis of out-of-sample simulations – and as compared with a benchmark model.

The only way to evaluate the quality of the model is to estimate it in ‘real time’ using a real-time database.

6. Flash estimates compiled by countries in other regions

As shown in table 3 above, none of the seven pilot countries currently compile flash estimates of GDP. As table 8 shows, five of the pilot countries give a high priority to the development of flash GDP estimates in the future. Five of the seven countries provide GDP estimates one quarter after the reference period which is in accordance with the requirements of the SDDS. One country, Tunisia provides data 45 days after the reference period.

In Europe, the 2009 financial crisis provided a catalyst for EU Member states to compile and disseminate flash GDP estimates. The current situation for individual countries in Europe is shown in the following table derived from the October 2015 *Economic and Financial Committee Status Report on Information Requirements in EMU* compiled by Eurostat in consultation with the European Central Bank.

Table 15. Timeliness of GDP flash estimates compiled by EU Member states, 2015

Member States	First GDP (flash) estimate	GDP estimate and breakdowns	Household and company accounts	Government finance statistics
EU – current release	45	65	120	113
EA – PEEI target/current release	45/45	60/66	90/102(120)*	90/113
Legal date of transmission from Member State to Eurostat	--	2 months	85 (3months)	90 (or 91/92)
Belgium	29	62	85	85
Bulgaria	41	60	93	93
Czech Republic	42	59	86	90
Denmark	--	59	91	86
Germany	43	52	83	82
Estonia	42	70	83	85
Ireland	--	73*	85	90
Greece	42	59	85	90
Spain	30	58	85	90
France	42	43	85	85
Croatia	--	66	92	90
Italy	42	59	85	85
Cyprus	42	69	85	90
Latvia	29	59	80	85
Lithuania	29	59	84	90
Luxembourg	--	--*	85	90
Hungary	42	66	91	90
Malta	--	69	84	85
Netherlands	42	43	85	85
Austria	29	59	85	100
Poland	45	59	92	90
Portugal	42	59	85	90
Romania	42	64	91	90
Slovenia	--	59	85	90
Slovakia	42	42*	85	90
Finland	42	66	85	85
Sweden	--	59	59	58
United Kingdom	30	59	91	86

--: Not applicable. Source: Eurostat and EMU October 2015 Economic and Financial Committee Status Report on Information Requirements in EMU.

For the flash estimations for 2013Q1 the coverage percentages were 97% for the Euro Area and 95% for the European Union.

SECTION T. ECONOMIC TENDENCY SURVEYS

1. What are economic tendency surveys

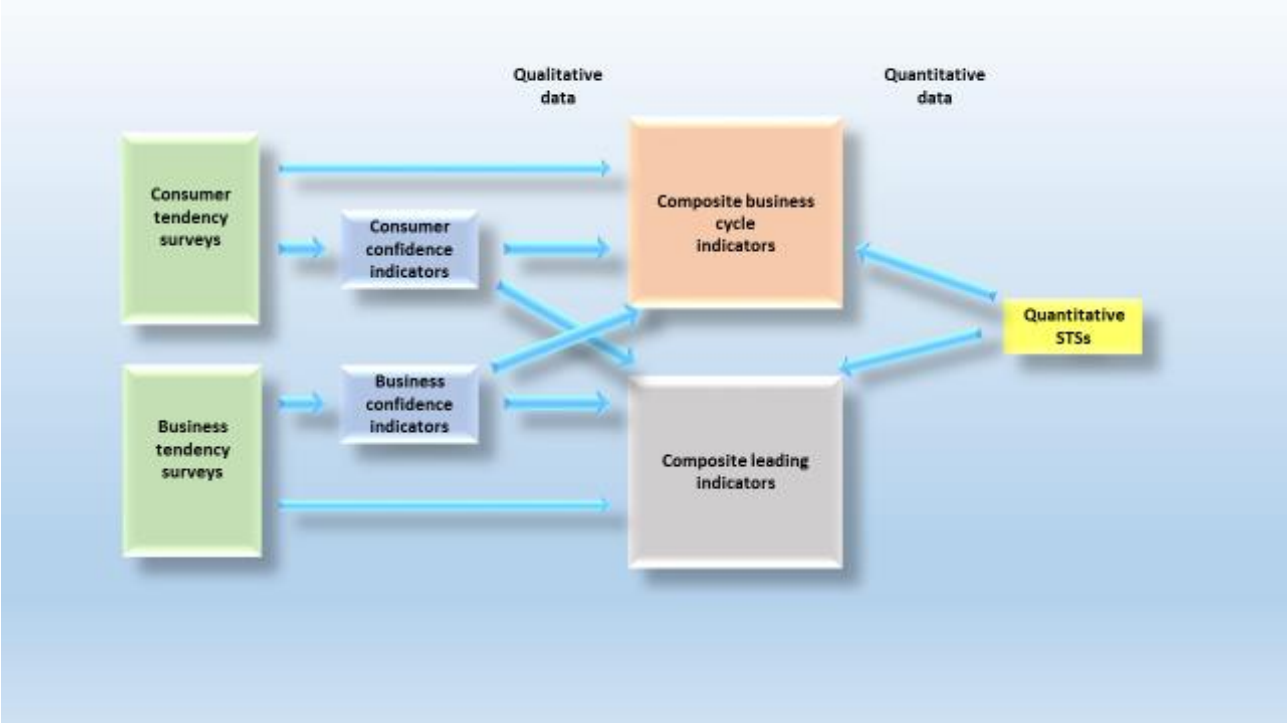
The two types of economic tendency surveys described in the current *Regional Guidelines* are consumer tendency surveys and business tendency surveys. These surveys obtain information used respectively to compile consumer confidence indicators and business confidence indicators. More specifically:

Consumer tendency surveys	Consumer tendency surveys collect (mainly) qualitative responses from consumer on the past, current and future economic situation. The consumer confidence surveys are based on household surveys. Nearly all the questions are of a qualitative nature. The consumer survey collects information on household spending and saving intentions, and to assess their perception of the factors influencing these decisions [UNSD 2015c].
Consumer confidence indicators	A consumer confidence indicator measures consumer 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 [UNSD 2015c].
Business tendency surveys	Business tendency surveys (also called business opinion surveys or business climate surveys) are carried out to obtain *qualitative* information for use in monitoring the current business situation and forecasting[42] short-term developments. Business tendency surveys ask company managers about the past, current situation of their business, and about their plans and expectations for the near future. Business surveys contain questions with reference to an assessment of recent trends in production, the current levels of order books and stocks, as well as expectations about production, selling prices and employment [OECD 2003 & UNSD 2015c].
Business confidence indicators	A business confidence indicator monitors the current and future business situation and can be used as a leading indicator for predicting short-term developments in a country. Business confidence indicators are derived from a number of variables collected in business tendency surveys. Business confidence indicators are calculated for the various segments of the economy, such as manufacturing, construction, retail trade, services etc. based possibly on different questions in business tendency surveys. They are then aggregated to derive a business confidence indicator for the whole economy [UNSD 2015c].

The relationship between these concepts and composite business cycle indicators described below in section U is illustrated in the following diagram.

[42] The data collected in business tendency and consumer opinion surveys are termed "qualitative" because respondents are required to assign *qualities* to the items of interest. For example, they may be asked to say whether their order books are "higher", "lower" or "same" compared with some previous period. The qualitative data obtained in business tendency and consumer opinion surveys are also described as "categorical" because respondents are required to choose between two or more response categories, such as "better", "same", "worse". The data collected in most statistical surveys are quantitative in contrast to the qualitative data collected in business tendency and consumer opinion surveys. Quantitative data are expressed in numbers, tons, litres, amounts of expenditures, etc [OECD 2003].

Diagram 6. Components of specific early warning indicators



The questions asked in economic tendency surveys have been chosen deliberately to be able to be completed without reference to records and accounts. Data are therefore normally available shortly after the end of the reference period and the time required for processing data collected from respondents is also normally very short. As a result, data derived from tendency surveys are normally available more quickly than data collected in conventional STS surveys.

The range of information covered by consumer and business tendency surveys goes beyond variables that can easily be captured in conventional quantitative statistics. Qualitative information may be collected for variables that are difficult or impossible to measure by conventional methods. They collect information about a wide range of variables selected for their ability, when analyzed together, give an overall picture on the demand (consumers) and supply (businesses) sides of the economy.

Consumer tendency surveys collect information in relation to the household on topics such as:

- Financial situation of households;
- Their intention or capacity to save;
- Their intention to buy durable goods (past/future).

In addition, households are also asked about their perceptions on aspects of the economy, namely:

- General economic situation in the country;
- Evolution of unemployment (past/future);
- Consumer prices (past/future).

Business tendency surveys also collect information about a wide range of variables, namely:

- Expectations for future sales/production/business activity or situation. Possibly also order books/demand (turnover);

- Past sales/production/business activity or situation;
- Stocks of finished goods;
- Selling prices;
- Employment;
- Capacity to export: competitiveness and export order books;
- Capacity utilization, factors limiting production.

The economic activity coverage of business tendency surveys varies across the large number of countries that conduct them, but the most common sectors include manufacturing, retail, construction, and services. More recently, some countries have included the banking sector.

In recent years, international organizations such as the European Commission, Eurostat and the OECD have prepared an extensive array of standards, guidelines and recommended practices for the collection, compilation and dissemination of economic tendency survey data with the aim of harmonizing practices used by countries within and across the different regions of the globe, thereby facilitating international comparisons.

2. Relevance of economic confidence indicators for policy formulation[43]

Data collected in consumer and business tendency surveys may be used:

- As stand-alone indicators on business conditions;
- In combination with other tendency survey data to compile Business and Consumer confidence indicators;
- In combination with other STSs for constructing business cycle composite indicators using various methodologies.

The recently completed draft UNSD publication *Handbook on Economic Tendency Surveys* states that potential users of data derived from tendency surveys fall into two broad categories according to their different needs: those who intend to analyze the statistics in detail and those who simply want to know the main results. The first category – "analysts"– includes economists and researchers operating in the academia, research institutions and governmental bodies. The second category may be labeled "executives" and consists of senior business executives, politicians, senior civil servants responsible for government policy, senior personal in banks and financial institutions and the press and other media. "Executives" probably make up the majority of BTS data users [UNSD 2015b, para. 1.6].

The main use of data derived from *business tendency surveys* in the past was to collect information on business conditions for the benefit of respondents and this explains why many surveys are carried out by trade associations. Today, business survey statistics have become a valuable tool for economic analysis for all types of users. The main users of survey results are still the respondents themselves. Detailed survey results broken down by sectors of activity provide valuable information on business conditions in their own sector as seen by their competitors and about the current and future business situation in their suppliers' and users' sectors.

Economic and financial analysts have also become major users of series derived from business tendency surveys. This is because the data are available rapidly and because some of the series provide advance warning of changes in aggregate economic activity. In addition, the survey information focuses on assessments and expectations of the economic situation by actors on the market. This is reflected in the extensive use of confidence indicators derived from business survey results. Such composite indicators summarize a selection of key survey variables in a single synthetic indicator.

[43] For a detailed discussion of the uses of the outputs from consumer and business tendency surveys refer to Chapter 10 of the draft UNSD publication, *Handbook on Economic Tendency Surveys* [UNSD 2015b].

As mentioned above, confidence indicators that are derived from tendency surveys provide information for economic surveillance, short-term forecasting and economic research, and are widely used to detect turning points in the economic cycle. Users of data derived from tendency surveys include business entities within the sector, industry associations as well as government and non-government policymakers charged with the responsibility for monitoring economic conditions and business cycles.

Business cycles are an important feature of the economies of market-oriented industrialized countries. The statistical series derived from economic tendency surveys are particularly suitable for monitoring and forecasting business cycles. The cyclical profiles of the series are in many cases easy to detect because they contain no trend. Usually the series are seasonally adjusted, at least to some extent, by the respondents and this adds to the smoothness of the series. This and the fact that they usually do not need revisions facilitate their use in forecasting and, in particular, in predicting turning points in the business cycle. Many survey series provide advance warning of turning points in aggregate economic activity as measured by GDP or industrial production.

Tendency surveys provide qualitative information about business and consumer expectations for the near future. Such data can be used as input series for the compilation of confidence indicators for individual economic sectors, consumers and for the economy as a whole. These in turn may be combined with other STSs to derive other indicators such as the OECD's Composite Leading Indicator.

3. Key elements of UNSD recommendations for economic tendency surveys

The draft UNSD Handbook [UNSD 2015b], and the earlier OECD publication, *Business Tendency Surveys: A Handbook* [OECD 2003], contain very detailed descriptions, methodologies and recommendations for the development of economic tendency surveys, the compilation of confidence indicators and their dissemination. Rather than merely duplicate what is provided in these resources, which are readily available online, the discussion in the current *Regional Guidelines* is restricted to a brief overview of the main elements of economic tendency survey development and the key decisions that need to be made by countries considering their development in the future, etc.

As with the development of surveys, etc., used for the collection of data for other STSs, decisions that need to be made by statistical agencies undertaking the development of economic tendency surveys need to be made in relation to their intended use and the needs of potential users of the confidence indicators they yield. All of these issues would obviously be balanced against the resources, funding available.

A. Consumer tendency surveys (CTS)

Element	Key issue(s)
Scope of the CTS	Issues to be determined here include:
	Which *types of households and persons* should be included in terms of income levels, employment status, age restrictions, etc?
	What will be the *geographic coverage* of the ECS? Should it cover all regions or be restricted to urban areas of the country or should it include rural areas?
	What *variables* should be included? Which questions will provide the required insights into the demand side of the economy and consumer confidence? Will the questions be backward or forward looking? Can they be answered without the need for reference to other members of the household? What indicators will need to be compiled from the questions asked? What is the overall respondent burden imposed on data providers? In addition to structural information about business and about the person completing the questionnaire (e.g. employment size, main activity, position of respondent in the company), further issues to be considered here are whether or not the questions capture

	consumer attitudes towards saving and spending and what are the factors that influence consumer decisions in these areas?
Questionnaire design	Flowing from the above discussion on the variables to be included in the survey, other factors influencing questionnaire design include the actual wording of the responses and the types of responses that will be recorded (e.g. closed or open-ended). A major issue to be considered by developers is the need to be able to compare the resultant outputs with those of other countries in the region or in other regions of the globe. In this context both the UNSD and OECD handbooks strongly recommend the use of question and question structure used in the Joint Harmonized EU Programme of Business and Consumer Surveys.[44] Both handbooks provide very detailed recommendations and model questions for this programme. The use of these questions does not preclude the inclusion of additional country-specific questions.
Survey frame, sample design, estimation procedures, data collection, data processing, data dissemination, metadata	Recommended international practices and guidelines on these aspects of the CTS production cycle are similar to those used for surveys involved in the collection, compilation and dissemination of the other STSs described above in the current Guidelines. These are described in considerable detail in both the UNSD and OECD handbooks, together with analyses of common practices in EU and OECD Member countries that conduct such surveys.

B. Business tendency surveys (BTS)

Element	Key issue(s)
Scope of the BTS	Issues to be determined here include:
	Which *sectors* of the economy should be included? Will the resultant analysis be economy-wide or restricted to specific individual sectors? As shown in the analysis of BTSs compiled by countries in the Arab Region and elsewhere around the globe, the main sectors included in most BTSs are: manufacturing, retail, construction, and other services, with a small number of countries including the banking sector.
	What will be the *reporting unit* for the questionnaire? Will it be the enterprise, establishment or local unit? In some countries the decision here will be determined by the structure register frame used for the survey.
	What will be the *geographic coverage* of the BTS. Should it cover all regions or be restricted to urban areas of the country or should it also include rural areas?
	What *variables* should be included? Which questions will provide the required insights into the supply side of the economy and business confidence? Will the questions be backward or forward looking? Can they be answered without the need for reference to records/accounts? What indicators will need to be compiled from the questions asked? What is the overall respondent burden imposed on data providers? In addition to deciding on what demographic characteristics of the respondent that will be collected, further considerations here include whether the questions selected measure business activity at an early stage of the business cycle? Do they identify bottlenecks and factors that hinder business activity?
Questionnaire design	Flowing from the above discussion on the variables to be included in the survey, other factors influencing questionnaire design include the actual wording of the responses and the types of responses that will be recorded (e.g. closed or open-ended). A major issue to be considered by developers is the need to be able to compare the resultant outputs with those of other countries in the region or in other regions of the globe. Again, in this context, both the UNSD and OECD handbooks strongly recommend the use of question

[44] The main topics included in the EU framework are: questions regarding the financial situation of households; their intention or capacity to save; their intention to buy durable goods, both in the past and in the future; their views on the general economic situation in the country.

	and question structure used in the Joint Harmonized EU Programme of Business and Consumer Surveys.[45] Both handbooks provide very detailed recommendations and model questions for this programme. The use of these questions does not preclude the inclusion of additional country-specific questions.
Survey frame, sample design, estimation procedures, data collection, data processing, data dissemination, metadata	Recommended international practices and guidelines on these aspects of the BTS production cycle are similar to those used for surveys involved in the collection, compilation and dissemination of the other STSs described above in the current Guidelines. These are described in considerable detail in both the UNSD and OECD handbooks, together with analyses of common practices in EU and OECD Member countries that conduct such surveys.

4. Economic tendency surveys conducted by the pilot countries and by countries in other regions

A. Economic tendency surveys conducted by pilot countries

As shown in table 3 above, economic tendency surveys are conducted by four of the seven pilot countries, namely Egypt, Qatar and Lebanon, with Tunisia conducting only business tendency surveys. However, as shown in table 9, six of the seven countries attach high priority to the development of such surveys or further development of existing surveys.

The following information on tendency surveys currently conducted was derived from the assessment reports completed by UN ESCWA in 2015 and from a UN ESCWA presentation given at the UNECE Seminar on the Role of National Statistical Offices in the production of Leading, Composite and Sentiment Indicators in Geneva in December 2015 [ESCWA 2015].

Egypt	The *consumer confidence indicator* is compiled by the Information and Decision Support Centre of the Cabinet. The data is based on a survey with a sample of 1,000 households and is collected by telephone. The indicator comprises three sub-indices the: income level of the household index; confidence in the prevailing economic policies index; and the improved living conditions and the economic situation of the household and society as a whole expectations index. This indicator is calculated as a simple mathematical average of the three sub-indices. The value of this indicator lies between 0 and 200. A value greater than 100 means that the sample opinions are positive, a value equal to 100 means that both positive and negative opinions are equal and when the value is less than 100, the opinions of the sample are negative. The *Business Barometer index* is produced by the Egyptian Centre for Economic Studies (ECES). It is based on a biannual modified sample survey including a total of 474 firms (218 large firms, 57 medium firms and 199 small firms). The number of employees determines the firm size. The surveyed firms include manufacturing (50%), financial (13%), construction (12%), transportation (11%), tourism (8%), and communications (6%) firms. The index is a simple average of the variables indices, calculated once for large firms and once for SMEs, both for evaluations and expectations. It has a maximum value of 100 when all firms report an increase, a minimum of 0 when all firms report a decrease and a middle value of 50 when all firms report no change. A higher index thus reflects a better business climate and vice versa.
Qatar	The *Consumer confidence index* has been compiled quarterly by the MDPS since 2013. The index is posted on the MDPS website through a press release. The main data source

[45] The main topics included in the EU framework are: expectations of future sales/production/business activity, possibly also order books; past sales/production/business activity; stocks of finished goods; selling prices; employment; capacity to export: competitiveness and export order books; capacity utilization, factors limiting production.

	is the Consumer confidence survey conducted through face-to-face interviews of a sample of heads of households. Approximately 25 part-time field staff are employed to conduct the interviews. Editing and processing is carried out by professional statisticians (four full-time equivalent) including a sampling expert and one IT staff. The index is meant to measure the perception of consumers on the health of the economy. The methodology is based on international standards, especially those of Michigan University and the Conference Board. Index computation is based on five questions of which two sub-indices are constructed as follows: The *present situation index* is compiled using answers from the following two questions, the respondent's evaluation of the present: • Economic situation; • Job opportunities. The *future expectations index* is compiled from answers to the following three questions, the respondent's expectations of the future (12 months in the future): • Situation of the economy; • Job opportunities; • Financial status for them and for their households. A sample of around 480 heads of households (Qatari and non-Qatari) is selected each quarter using a 2-stage sampling method. The Primary Sampling Unit is the Enumeration Block created at the 2010 Population Census. The frame is the list of households prepared at the 2010 Population Census, which is updated during the listing stage prior to the conduct of the survey. The response rate is usually around 95%. The standard error is around 4%. The *Business confidence index* has been compiled quarterly by the MDPS since 2014. The data source is the Online Survey of Business Confidence conducted through telephone interviews and followed up through exchange of e-mails. The Department employs 10 part-time staff in the Call Centre to conduct the telephone interviews. Editing and processing is carried out by professional statisticians (four full-time equivalent) including a sampling expert and an IT staff. The Business Confidence Index is meant to measure the perception of the business community on key aspects of their business. The methodology used for its compilation is based on international standards, especially the European Commission Methodology and the CESifo Group Munich. The index computation is based on six questions from which two sub-indices are computed (Present situation index and expectations index). The six questions and topics that make up the sub-indices are the following: • Volume of production; • Stock volume of finished products; • Final products price, i.e. goods/services prices; • Business volume/sales volume/purchase orders; • Labour force volume; • Rate of profit. For each of these, respondents are asked to compare the enterprises' current quarter performance with that of the previous quarter and to answer whether the performance has (i) Increased, (ii) Unchanged (iii) Decreased or (iv) Not applicable. The sampling frame is based on the list of establishments of the 2010 Census of Establishments. The population size is around 12,000 enterprises and the sample size is 750. The population is divided into three strata on the basis of the employment size. Small are those employing between 5 and 19 employees, Medium, between 20 and 49 employees, and large, 50 or more. The industries covered are (i) Mining and Quarrying, which in 2013

	accounted for 55% of GDP, Manufacturing, Electricity, gas and water, Construction, Distributive trade, and other Services. The sample is designed to ensure a "Confidence Interval" of 95%. Moreover, the "Degree of Precision" was defined so that the sampling error would be no more than 4%. Since this is a new index, there is need to improve capacity in the computation, analysis and interpretation of the index.
Tunisia	*Business Managers Confidence Index:* The Business Managers Survey provides a view of the confidence in the activity sectors future. The survey is conducted quarterly by the NSO and the results are also published quarterly. Refer annex 4 below for a more detailed description of the methodology used for data collection and compilation methodology. *Institut Ararbe des Chefs d'Entreprises and le Centre Tunisien de Veille et d'Intelligence Economique Business Climate Index:* These two organizations jointly calculate the business climate index for different sectors (building, trade, manufacturing industry, and services) - http://www.iace.tn/publications/indices/. Three publications have been released since 2011, together with data on consumer sentiment - May, September 2011; January, April 2012; Q3 and Q4 2014 - http://www.iace.tn/articles/category/iace/publications/indices/consommateur/.
Palestine	*Business Cycle Indicator (PMABCI):* The Palestine Monetary Fund index captures the state and evolution of the Palestinian business environment, especially in the manufacturing sector and the impact on economic activities at large. The indicator uses opinion polling methodology. A representative sample of industrial firm mangers in Gaza Strip and the West Bank are surveyed about their opinions of the level of employment, production and sales at the current time, and their expectations for the following months. The data is then used to construct a business cycle indicator for a specific month. The series has been published in reports on a monthly basis since November 2012 - refer http://www.pma.ps/Default.aspx?tabid=413&language=en-US.
Lebanon	The Business Confidence Indicator has been published since 1996 in quarterly bulletins. It relies on a quarterly national business survey covering the following sectors: industry (1996), commerce (1996), construction and public works (1998), hotels and restaurants (2000). A Balance of opinion (BO) is computed according to the weight of each firm. BO is the difference between the proportion of surveyed managers estimating that there has been an improvement in a said variable, and the proportion of those who have reported a downward trend. Enterprises are chosen following strict rules on regional, sectoral and turnover weights: Random stratified sampling. Qualitative survey based on similar methods used by INSEE and Banque de France. The Balance of Opinion is seasonally adjusted and centred.
	Banque du Liban (BDL) Coincident Indicator: Adopted in 1994 and is a monthly approximation to GDP. It comprises eight economic variables that reflect Lebanese economic activity. Monthly series available from January 1993 at http://www.bdl.gov.lb/webroot/statistics/table.php?name=t51-1. *Business composite indicator:* Provides a measurement for the global conjectural climate as seen by surveyed managers. It is constructed by selecting and combining the appropriate coincident variable from each sector, providing a more global economic view. The variables used in the calculation of this indicator are taken from the Business Survey defined as Economic Trend Surveys. The BCI is coincident indicator. A time series from 1998 to 2010 is available in the following report published by BDL: www.bdl.gov.lb/downloads/download/69/en. *Byblos Bank/American University of Beirut Consumer Confidence Index*: Is calculated on a monthly basis based on responses to survey questions by a nationally representative sample of adult males and females living in Lebanon. The questionnaire is based on one used by the University of Michigan for its Index of Consumer Sentiment. Monthly index variables are available from July 2007 and are disseminated in publications on a semi-annual basis – refer http://www.byblosbank.com.lb/Global-Publications-2?pub=1666.

B. Harmonized European Confidence Indicators

Several European countries have developed a number of sector-specific composite coincident confidence indicators, namely the:

- *Industrial confidence indicator (ICI)* - is an average of the balances of questions in the industry survey relating to production expectations, total order books and stocks of finished goods (with the inverted sign);
- *Construction confidence indicator* - is an average of the balances of questions in the construction survey relating to total order books and employment future tendency;
- *Retail trade confidence indicator (RCI)* - is an average of the balances to the questions in the retail trade survey relating to present business situation, future business situation and stocks (with the inverted sign);
- *Services confidence indicator (SCI)* - is an average of the balances to the questions in the survey relating to present business situation, past demand and future demand;
- *Consumer confidence indicator (CCI)* - is the arithmetic average of the balances to the questions on the financial situation of households, the general economic situation, the unemployment expectations (with the inverted sign) and savings, over the next 12 months in each case.

In addition, the European Commission also calculates the EU and euro-area aggregates on the basis of the national results.

The rationale undertaking a sectoral analysis of business cycle conditions is that some sectors, such as construction, typically anticipate the global cycle and others, such as services and consumption from a demand perspective, represent important engines of growth.

SECTION U. COMPOSITE BUSINESS CYCLE INDICATORS

1. What are composite business cycle indicators

Composite business cycle indicators are best defined through discussion of three related concepts, namely, composite indicators, business cycle indicators and composite business cycle indicators.

Composite indicators	A composite indicator is formed when individual indicators are combined into a single index on the basis of an underlying model. The composite indicator should ideally measure multi-dimensional concepts which cannot be captured by a single indicator, e.g. competitiveness, industrialisation, sustainability, etc. A composite leading indicator is constructed by combining two or more leading indicators into a single index number. Various approaches exist for the selection of the component series for the composite indicator [OECD 2003 & OECD-JRC 2008].
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 quantitative and qualitative data as well as financial indicators etc. They are classified into leading, coincident and lagging indicators[46] based on the timing of their movements. [UNSD 2015c]. It is important to note that leading indicators are more meaningful when used within the framework of a system of cyclical indicators—including coincident and lagging indicators that define and describe business cycles [The Conference Board 2001].
Composite business cycle indicators	Composite business cycle indicators are typically constructed from a variety of indicators. The availability of data series and the usefulness of a specific data series in predicting turning points in business cycles may vary from country to country. Countries may therefore need to make their own assessment of the type of data series to include in the construction of composite business cycle indicators [UNSD 2015c].

The Composite Indicators Research Group[47] describes three levels of indicator groupings:

- *Individual indicator sets* - representing a menu of separate indicators or statistics. This can be seen as a first step in stockpiling existing quantitative information;
- *Thematic indicators* - individual indicators which are grouped together around a specific area or theme. This approach requires identifying a core set of indicators that are linked or related in some way. They are generally presented individually rather than synthesized into a composite;
- *Composite indicators* - formed when thematic indicators are compiled into a synthetic index and presented as a single composite measure. For comparing, for example, the performance of countries on different dimensions, a typical composite indicator of *n* indicators will be the weighted average of a set of normalized indicators.

Romina Bandura in the paper, *A Survey of Composite Indices Measuring Country Performance*, describes just under 180 composite indicators covering a wide range of economic, social and environment topics that have

[46] A *leading indicator* is an economic time-series which exhibits a leading relationship with respect to the turning points of a reference series. It is also an economic indicator whose peaks and troughs during the business cycle tend to occur sooner than those of the general economy. 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 [OECD 2003, UNSD 2015c]. *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 [UNSD 2015c]. *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 [UNSD 2015c].

[47] Refer http://composite-indicators.jrc.ec.europa.eu/.

been compiled by countries in all regions around the globe [UNDP 2006]. Composite business cycle indicators are designed for a specific purpose, namely, for predicting turning points in business cycles.

2. Relevance of composite business cycle indicators for policy formulation

By combining a variety of indicators, composite indicators can be used to illustrate or express complex issues in wide ranging fields into a single indicator. Business cycle indicators enable policy makers to monitor the current situation and provide an advance indication of the direction in which the economy is heading. The United States National Bureau of Economic Research (NBER) defines business cycles as being recurrent sequences of alternating phases of expansion and contraction in economic activity.

The advantage of composite indicators over the individual component series is that they achieve a better trade-off between responsiveness and stability. Composite indicators can be constructed to have fewer false alarms and fewer missed turning points than its individual components; moreover they tend to have more stable lead-times. Such indicators are regarded by the general public and the media as being easier to interpret rather than attempting to find a common trend in many separate indicators. When compiled on the basis of common standards and guidelines, composite indicators facilitate comparisons and the benchmarking of performance between countries. As a result, they are seen as a useful tool for policy analysis, public communication and drawing attention to particular issues. [OECD-JRC 2008].

The alternative view of some analysts is that composite indicators should be used with caution as the "big picture" or "summary" results they illustrate may invite users, especially policy makers, politicians and the media, to draw simplistic analytical or policy conclusions. Such indicators may also send misleading messages if they are poorly constructed or misinterpreted.

A third view is that composite indicators should be used in the context of being a starting point for initiating discussion and attracting public interest on a particular issue. Further discussion and policy formulation on this issue should be framed within the context of a broader range of short-term statistics such as those described in earlier sections of the current *Regional Guidelines* publication. Consistent with this view is that the producers of composite indicators have a responsibility to ensure that any inherent weaknesses are transparent through the provision of qualitative metadata as well as caveats to their use flowing from key aspects of their compilation such as the method of weighting the different component series.

3. Key elements of international recommendations for composite business cycle indicators

As mentioned above, composite business cycle indicators are compiled by combining a range of quantitative STSs and qualitative data such as consumer and business confidence indicators using a variety of statistical and econometric methods. There are currently no global international statistical standards for the development of such indicators, and the aim of the handbook prepared by UNSD will be to provide a set of Harmonized principals for their compilation and presentation, thereby facilitating comparisons of economic performance.

Key issues for the compilation of composite business cycle indicators are:

Choice of the reference series	Leading, or "cyclical" indicator systems are constructed around a *reference series* i.e. a target series which reflects overall economic activity and whose cyclical development it is intended to predict. The reference series is used to establish the "timing classification" of statistical indicators into *leading*, *coincident* or *lagging* indicators. Of the three, there is most interest in *leading* indicators. A single variable such as total industrial production or GDP is used as reference series in most cyclical indicator systems. GDP is the best measure of overall economic activity but changes in industrial production are highly correlated with GDP and are used as the reference series in many indicator systems because it is usually available on a monthly basis and becomes available soon after the reference period [OECD 2003].

Deciding which variables to include in the compilation of the indicator [OECD 2012]	Component series are selected for inclusion in the composite indicator on the basis of the following criteria:
	Economic relevance
	Economic significance: the observation of a leading relationship between a potential components series and the reference series is not in itself sufficient – an economic justification for the relationship is also needed before the potential component series can be accepted as an indicator. *Breadth of coverage*: series with a broad coverage of economic activity are preferred to narrowly-defined series.
	Practical considerations
	Frequency: monthly series are preferred to quarterly. *Revision*: series that are not subject to significant revisions are preferred. *Timeliness*: data should be timely, being made available very soon after the period to which they refer. *Length*: long time series with no breaks are preferred.
Approach to aggregation	The 2012 OECD publication states that in the absence of any objective methodology component series used in the compilation of any composite leading indicator have equal-weights. However, for zone aggregates the CLIs themselves are weighted reflecting country weights based on measures such as the previous year's GDP. Aggregation of component indicators is undertaken to improve the predictive capacity of the overall composite indicator. But some complications can arise in aggregation reflecting the availability of data for component series, both historical and current. The OECD publication states that as a rule, for any given period, a CLI is only calculated if data for 60% or more of the component series are available in that period. Aggregation is carried out by averaging the growth rates of each component indicator. Then, the average growth rates are chained to form the final indicator. The advantage of this procedure is that the CLI is less sensitive to missing or late arriving component data [OECD 2012, p. 9].

The UNSD Handbook describes four different, but related approaches that currently used to resolve these issues, namely the:

- Original classical heuristic United States National Bureau of Economic Research (NBER) approach;
- United States Conference Board approach for compiling leading, coincident and trailing indicators for a number of countries;[48]
- OECD approach used in the compilation of their Composite Leading Indicator;
- composite indicators based on a model-based framework.

National Bureau of Economic Research approach	The heuristic approach is based on a high degree of experience of the researcher in charge of the analysis. This approach is used extensively in the United States and Europe and entails selection of the component series "by hand" relying on descriptive statistics and on the detection of turning points. Once relevant variables have been selected, a simple way to aggregate them is to compute the arithmetic mean of net balances, as it is the case for the computation of the confidence indicators; a weighting scheme may also be chosen to aggregate between different sectors and, if needed, between different countries [UNSD 2015c].
Conference Board Approach for compiling	Over the years, many economic indicators have been evaluated and classified based on a set of criteria which focuses on their properties vis-a-vis the business cycle. With this

[48] In addition to the United States, the Conference Board compiles and disseminates such indicators for China, France, Germany, Japan, Mexico, South Korea, Spain, the United Kingdom and the Euro-area.

leading, coincident and trailing indicators	approach, in order to determine the cyclical properties of a series, it is compared to an established reference chronology which specifies the peaks and troughs of the business cycle. This is based on a number of criteria, such as: *consistent timing*, where the series must exhibit a consistent timing pattern as a leading, coincident or lagging indicator; *conformity*, where the series must conform well to the business cycle; *smoothness*, where month-to-month movements must not be too erratic; *economic significance*, cyclical timing must be economically meaningful and logical; *statistical adequacy*, data must be collected and processed in a statistically, and; *currency* or *timeliness*, the series must be published on a reasonably prompt schedule, preferably within a month.
OECD approach for compiling a Composite Leading Indicator (CLI)	The OECD compiles a CLI for almost every Member country based on the selection of a range of headline indicators for industry and consumers with good leading properties.
Composite indicators based on a model-based framework	This approach combines several indicators in order to derive a cyclical signal, smoothing the original series and cleaning them from idiosyncratic noise. Widely used empirical methodologies are developed along the factor model-based methodology; the two most common techniques are suggested by Stock and Watson [Stock and Watson 1989] in the time domain and by Forni *et al* [Forni *et al* 2005] the frequency domain.

4. Composite business cycle indicators compiled by countries in other regions

As shown in table 3 above, none of the seven pilot countries currently compile composite business cycle indicators. Furthermore, these indicators are not regarded as high priority for future development by any of the countries (refer table 8). In this context, the information for composite business cycle indicators compiled by international organizations and countries in other regions is provided below in table 16 to illustrate their potential use by countries in the Arab Region and to show their role in early warning systems. It should be emphasized that the range of indicators outlined is not intended to be exhaustive.

Table 16. Examples of composite business cycle indicators compiled by countries/international agencies in other regions

Title	Producer organization	Type	Description
Harmonized European Confidence Indicators	European Commission	coincident	Using this approach several European countries have developed the five separate confidence indicators described in section T.4 above. The rationale for their development is that sectorial analysis provides a better evaluation of business cycle conditions, for example, for monitoring sectors that typically anticipate the global cycle such as construction or that represent important engines of growth, such as services, or consumption from a demand perspective. These harmonized confidence indicators can be considered as composite coincident indicators for each sector.
OECD Composite Leading Indicator	OECD	leading	The OECD CLI is designed to provide early signals of turning points in business cycles, considering fluctuations of economic activity around its long term potential level. This approach, focusing on turning points (peaks and troughs), provides qualitative rather than quantitative information on short-term movements. The CLI is constructed monthly by aggregating together component series selected according to multiple criteria, such as: economic significance, cyclical correspondence and data quality.

Title	Producer organization	Type	Description
			Prior to March 2012 the OECD CLI used the monthly index of industrial production (IIP) as a reference series, which displayed strong co-movements with GDP. In March 2012 the OECD investigated methods to generate monthly estimates of GDP based on the official quarterly estimates. From April 2012 therefore the OECD has switched to using GDP as the reference series.
Business Climate Indicator	European Commission		Compiled exclusively for the industry sector of the Euro Area using factor based methodologies
Composite Business Cycle Indicators for South Africa	South African Reserve Bank	leading	Uses the NBER approach. The reference series for analysing business cycles in South Africa is the composite coincident business cycle indicator rather than GDP or manufacturing production. The following five time series are currently included as component time series of the composite coincident business cycle indicator: • Gross value added at constant prices, excluding agriculture, forestry and fishing; • Value of wholesale, retail and new vehicle sales at constant prices, weighted according to their respective contributions to gross domestic product; • Utilization of production capacity in the manufacturing sector; • Total formal non-agricultural employment; • An industrial production index, comprising the physical volume of manufacturing production, the physical volume of mining production and electricity generated, weighted according to each sector's contribution to gross domestic product. The methodology used by the South African Reserve Bank to compile composite indices is very similar to that of The Conference Board. The composite leading business cycle indicators currently comprises the following thirteen component time series: • Opinion survey of the volume of orders in manufacturing; • Opinion survey of stocks in relation to demand (manufacturing & trade); • Opinion survey of business confidence (manufacturing, construction & trade); • Opinion survey of the average hours worked per factory in the manufacturing sector; • Composite leading business cycle indicator of major trading-partner countries (percentage change over 12 months); • Commodity prices in US dollars for a basket of South African export commodities (six month smoothed growth rate); • Real M1 money supply (six month smoothed growth rate);

Title	Producer organization	Type	Description
			• Prices of all classes of shares (six month smoothed growth rate); • Number of residential building plans passed for flats, townhouses and houses larger than 80m²; • Interest rate spread: 10-year government bonds less 91-day Treasury bills; • Gross operating surplus as a percentage of gross domestic product; • Labour productivity in manufacturing (six month smoothed growth rate); • Job advertisement space in the *Sunday Times* newspaper (six month smoothed growth rate).
Eurocoin indicator	Bank of Italy and CEPR	coincident	The monthly Eurocoin indicator uses business tendency survey data combined using factor based methodologies to assess the current stance of the European business cycle.
Composite business climate indicator	INSEE, France		Compiled on the basis of 26 balances of opinions from the manufacturing, services, building, retail and wholesale trade surveys indicators using factor based methodologies.
IFO Business Climate	IFO Germany	leading	Is compiled for industry and trade, aggregating results for the manufacturing, construction, wholesaling and retailing sectors. Is computed as a geometric mean of the balances referring to the current business situation and the business outlook in the next six months.
ISTAT Economic Sentiment Indicator (IESI)	ISTAT, Italy	leading	The IESI is based on the set of balance series underlying the confidence indicators of industry, construction, services and retail trade, normalized and weighted using value added shares. Uses Italian GDP as the reference series.

SECTION V. REFERENCES

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ANNEXES

ANNEX 1. TEMPLATE USED FOR COUNTRY ASSESSMENT REPORTS FOR REVIEWING SHORT-TERM STATISTICS IN PILOT COUNTRIES

ESCWA SHORT TERM STATISTICS CAPACITY BUILDING PROJECT, 2014

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Part A. Short term statistics specific questions													
National Accounts	Quarterly national accounts: Flash GDP estimate												
National Accounts	Quarterly national accounts: GDP full release												
National Accounts	by expenditure												
National Accounts	by production												
National Accounts	by income												
National Accounts	Quarterly sector accounts												
Production and turnover	Production index for industry, by major division (mining, manufacturing,												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
	electricity, water, etc.)												
Production and turnover	Production index for construction												
Production and turnover	Turnover index for retail trade by major division												
Production and turnover	Turnover index for industry by major division												
Production and turnover	Turnover index for other services by major division (excluding financial services and non-commercial services)												
Production and turnover	New orders index for industry by major ISIC division (for those that work on order)												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Production and turnover	New orders index for construction (building permits or housing starts)												
Production and turnover	Commodity production (as relevant at country level data on commodity productions and other indicators of economic activity)												
Production and turnover	Agricultural products												
Production and turnover	Minerals												
Production and turnover	New car registrations/sales												
Production and turnover	New commercial vehicle registrations/sales												
Production and turnover	Tourist arrivals												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Price Indicators	Consumer price index												
Price Indicators	Producer price index												
Price Indicators	Import price index												
Price Indicators	Export price index												
Labour market indicators	Unemployment												
Labour market indicators	Unemployment rate												
Labour market indicators	Employment total and by economic activity												
Labour market indicators	Hourly wage rate												
Labour market indicators	Hours of work												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
External sector indicators	Exports and imports (of goods and services)												
External sector indicators	International investment position (IIP), specify balances and components												
External sector indicators	Official reserve assets												
External sector indicators	External debt (by sector, maturity and foreign currency)												
Financial sector indicators	Central Bank net foreign assets												
Financial sector indicators	Central Bank domestic lending												
Financial sector indicators	Central Bank reserve money												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Financial sector indicators	Depository corporations net foreign assets												
Financial sector indicators	Depository corporations domestic lending												
Financial sector indicators	Depository corporations broad money liabilities												
Financial sector indicators	Other financial corporations balance sheet, assets and liabilities by sector												
Financial sector indicators	Financial corporate profits												
Financial sector indicators	Financial corporate debt												
Financial sector indicators	Others as relevant: nonperforming												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
	loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.												
General government sector indicators	Revenue												
General government sector indicators	Expense												
General government sector indicators	Net operating balance (= Revenue – Expense)												
General government sector indicators	Net acquisition of non-financial assets												
General government	Expenditure												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
sector indicators													
General government sector indicators	Net lending/net borrowing (= Revenue - Expenditure)												
General government sector indicators	Gross debt												
Household sector indicators	Household disposable income												
Household sector indicators	Household saving												
Household sector indicators	Household debt												
Household sector indicators	Other as relevant: disposable income, debt service and principal payments,												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
	household debt, etc.												
Non-financial corporations sector indicators	Non-financial corporate profits												
Non-financial corporations sector indicators	Non-financial corporate debt												
Non-financial corporations sector indicators	Other as relevant												
Financial market indicators	Interest rates, as relevant short and long term money and bond market rates												
Financial market indicators	Exchange rates, as relevant spot and forward markets												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Financial market indicators	Nominal and real effective exchange rate												
Financial market indicators	Stock market indicators												
Financial market indicators	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.												
Real estate market indicators	Residential property price index												
Real estate market indicators	New house sales												
Real estate market indicators	Existing house sales												
Economic sentiment	Consumer confidence												

Set	Indicators	Dissemination periodicity	Length of time series available	Data source(s) Please describe the exact: Survey - Administrative record - Other	Level of disaggregation of output	Method of computation	Validation and estimation methodologies used (specify methodology)	International Standards and recommendations used (Specify actual standards and guidelines used, including national standards)	Additional info (Seasonal adjustment, classification, details)	List dissemination platform(s) used [Tick box for: publication; database software; website]	Please provide link for the data	Please briefly describe what specific capacity building needs are required eithe to produce or improve the quality of this indicator. Include both skill and statistical infrastructure needs.	Please provide link for metadata or describe metadata currently available
Economic sentiment	Business confidence												
Economic sentiment	Composite Business Cycle Indicators												
Economic sentiment	Leading Indicator												
Economic sentiment	Coincident Indicator												
Economic sentiment	Lagging Indicator												

Part B. General questions on short term economic indicators

1.	Which short term economic indicators has your office been trying recently (i.e. over the last two years) to improve and build capacities in?
2.	Which new short term economic indicators is your office planning to start producing in the near future (i.e. over the next two years)?
3.	Please select (in order of importance) 10 economic indicators your office considers as a priority for capacity building (for the purpose of producing or improving current production of data)?
4.	Please briefly outline the capacity building activities your office has recently (i.e. over the last two years) undertaken in the area of short term economic indicators (please specify the activity and indicator)?
5.	What are your specific capacity development needs that cannot be met with existing resources provided by your organization (include skill development, statistical infrastructures, etc)? Note: Exclude IT needs - refer Question 9 below.

6.	Which short term economic Indicators are most frequently requested by your clients/data users (please select the top 10)?
7.	Around approximately what percentage of all economic data users request short term economic indicators data (as opposed to yearly, biennial, etc., or ad hoc structural economic statistics)?
8.	Are any of your short term economic indicators utilized for the compilation of early warning/composite indicators? If "yes", please list those indicators used.
9.	Are your current IT capabilities sufficient for processing, validating, and disseminating short term economic indicators? What are your priority IT needs (skill development, hardware/software, etc?)
10.	Which of the short term economic indicators listed above in Part A are produced and/or disseminated by other national entities in your country?

ANNEX 2. IMF DATA QUALITY ASSESSMENT FRAMEWORK METADATA ITEMS

H 0.1 National descriptor	
H 0.2 Metadata update date	
H 0.3 SM Update date	
H 0.4 Certificate date	
H 0.7 Data category notes	
0.1 Legal and institutional environment	0.1.1 Responsibility for collecting, processing and disseminating statistics
	0.1.2 Data sharing and coordination among data producing agencies
	0.1.3 Confidentiality of individual reporters' data
	0.1.4 Ensuring statistical reporting
0.2 Resources	0.2.1 Staff, facilities, computing resources, and financing
	0.2.2 Ensuring efficient use of resources
0.3 Relevance	0.3.1 Monitoring user requirements
0.4 Quality management	0.4.1 Quality policy
	0.4.2 Quality monitoring
	0.4.3 Quality planning
1.1 Professionalism	1.1.1 Impartiality of statistics
	1.1.2 Selection of sources, methodology, and modes of dissemination
	1.1.3 Commenting on erroneous interpretation and misuse of statistics
1.2 Transparency	1.2.1 Disclosure of terms and conditions for statistical collection, processing and dissemination
	1.2.2 Internal governmental access to statistics prior to release
	1.2.3 Attribution of statistical products
	1.2.4 Advance notice of major changes in methodology, source data and statistical techniques
1.3 Ethical standards	1.3.1 Guidelines for staff behavior
2.1 Concepts and definitions	
2.2 Scope	2.2.1 Scope of the data
2.3 Classification/sectorization	2.3.1 Classification/sectorization
2.4 Basis for recording	2.4.1 Valuation
	2.4.2 Recording basis
	2.4.3 Grossing/netting procedures
3.1 Source data	3.1.1 Source data collection programs
	3.1.2 Source data definitions, scope, classifications, valuation, and time of recording
	3.1.3 Source data timeliness

3.2 Assessment of data source	3.2.1 Data source assessment
3.3 Statistical techniques	3.3.1 Source data statistical techniques
	3.3.2 Other statistical procedures
3.4 Data validation	3.4.1 Validation of intermediate results
	3.4.2 Assessment of intermediate data
	3.4.3 Assessment of discrepancies and other problems in statistical outputs
3.5 Revision studies	3.5.1 Revision studies and analyses
4.1 Periodicity and timeliness	4.1.1 Periodicity
	4.1.2 Timeliness
4.2 Consistency	4.2.1 Internal consistency
	4.2.2 Temporal consistency
	4.2.3 Intersectoral and cross-domain consistency
4.3 Revision	4.3.1 Revision schedule
	4.3.2 Identification of preliminary and/or revised data
	4.3.3 Dissemination of revision studies
5.1 Data accessibility	5.1.1 Statistical presentation
	5.1.2 Dissemination media and format
	5.1.3 Advance release calendar
	5.1.4 Simultaneous release
	5.1.5 Dissemination on request
5.2 Metadata accessibility	5.2.1 Dissemination of documentation on concepts, scope, classifications, basis of recording, data sources and statistical techniques
	5.2.2 Disseminated levels of detail
5.3 Assistance to users	5.3.1 Dissemination of information on contact points
	5.3.2 Availability of documents and services catalogues

Source: SDMX website (2009).

ANNEX 3. EUROSTAT'S SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

Code		
S.1	Contact	
S.1.1		Contact organization
S.1.2		Contact organization unit
S.1.3		Contact name
S.1.4		Contact person function
S.1.5		Contact mail address
S1.6		Contact email address
S.1.7		Contact phone number
S.1.8		Contact fax number
S.2	Introduction	
S.3	Metadata update	
S.3.1		Metadata last certified
S.3.2		Metadata last posted
S.3.3		Metadata last update
S.4	Statistical presentation	
S.4.1		Data description
S.4.2		Classification system
S.4.3		Sector coverage
S.5.4.4		Statistical concepts and definitions
S.4.5		Statistical unit
S.4.6		Statistical population
S.4.7		Reference area
S.4.8		Time coverage
S.4.9		Base period
S.5	Unit of measure	
S.6	Reference period	
S.7	Institutional mandate	
S.7.1		Legal acts and other agreements
S.7.2		Data sharing
S.8	Confidentiality	
S.8.1		Confidentiality - policy
S.8.2		Confidentiality – data treatment
S.9	Release policy	
S.9.1		Release calendar
S.9.2		Release calendar access
S.9.3		User access
S.10	Frequency of dissemination	

Code		
S.11	Dissemination format, Accessibility and clarity	
S.11.1		News release
S.11.2		Publications
S.11.3		Online database
S.11.3.1		AC1. Data tables - consultations
S.11.4		Micro-data access
S.11.5		Other
S.11.5.1		AC2. Metadata - consultations
S.12	Accessibility of documentation	
S.12.1		Documentation on methodology
S.12.1.1.		AC3. Metadata completeness - rate
S.12.2		Quality documentation
S.13	Quality management	
S.13.1		Quality assurance
S.13.2		Quality assessment
S.14	Relevance	
S.14.1		User needs
S.14.2		User satisfaction
S.14.3		Completion and R1. Data completion - rate for U
S.14.3.1		R1. Data completion. Rate for P
S.15	Accuracy and reliability	
S.15.1		Overall accuracy
S.15.2		Sampling error and A1. Sampling errors – indicators for U
S.15.2.1		A1. Sampling errors – indicators for P
S.15.3		Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U
S.15.3.1		Coverage error
S.15.3.1.1		A2. Over coverage - rate
S.15.3.1.2		A3. Common units - proportion
S.15.3.2		Measurement error
S.15.3.3		Non-response error
S.15.3.3.1		A4. Unit non-response – rate for P
S.15.3.3.2		A5. Item non-response – rate for P
S.15.3.4		Processing error
S.15.3.5		Model assumption error
S.16	Timeliness and punctuality	
S.16.1		Timeliness and TP2. Time lag – final results for U
S.16.1.1		TP1. Time lag – first results for P
S.16.1.2		TP2. Time lag – final results for P

Code		
S.16.2		Punctuality and TP3. Punctuality – delivery and publication for U
S.16.2.1		TP3. Punctuality – delivery and publication for P
S.17	Comparability	
S.17.1		Comparability - geographical
S.17.1.1		CC1. Asymmetry for mirror flows statistics - coefficient
S.17.2		Comparability - over time and CC2. Length of comparable time series for U.
S.17.2.1		CC2. Length of comparable time series for P.
S.18	Coherence	
S.18.1	Coherence – cross domain	
S.18.1.1	Coherence – sub-annual and annual statistics	
S.18.1.2	Coherence – national accounts	
S.18.2	Coherence - internal	
S.19	Cost and burden	
S.20	Data revision	
S.20.1	Data revision - policy	
S.20.2	Data revision – practice and A6. Data revision – average size for U	
S.20.2.1	A6. Data revision – average size for P	
S.21	Statistical processing	
S.21.1		Data source
S.21.2		Frequency of data collection
S.21.3		Data collection
S.21.4		Data validation
S.21.5		Data compilation
S.21.5.1		A7. Imputation - rate
S.21.6		Adjustment
S.21.6.1		Seasonal adjustment
S.22		Comment

Source: *Technical Manual of the Single Integrated Metadata Structure – Annex 1*, Eurostat, Luxembourg, 2014.

ANNEX 4. CASE STUDY ON COMPOSITE BUSINESS CYCLE INDICATOR: TUNISIA

TUNISIAN NATIONAL INSTITUTE OF STATISTICS (INS)

BUSINESS MANAGERS CONFIDENCE INDEX FOR THE INDUSTRY SECTOR: METHODOLOGICAL NOTE

1. Index objectives

The main aim of the index is to provide a tool to analyze the economic situation for activity in the industry sector, excluding BTP (construction), and to provide qualitative information on the recent situation for the sector and short-term future prospects. Information is obtained from survey data which is synthesized in the form of indicators making it possible to analyze the evolution of the sector during the recent period (i.e. the last three months) and for future activity prospects in the near future (i.e. the next three months).

2. Survey coverage

Survey coverage includes enterprises engaged in manufacturing industries, mining and energy.

3. Survey sample

Data are collected from a sample of 800 enterprises, stratified on the basis of size (paid employees) and branch of activity.

Units for the survey are obtained from the INS Register of industrial enterprises. Large industrial enterprises are completely enumerated in the sample to ensure survey representativeness of sector activity.

4. Survey questionnaire

The quarterly survey questionnaire of the current situation and future prospects for industrial enterprises covers three topics:

Business manager understanding of the general economic situation of the industry sector, its activity (good, average or poor) and its short-term future prospects.

Business manager understanding of future prospects for the *enterprise* for the next three months. Qualitative data (increase, unchanged, decrease) relates to:

- Production trends for the enterprise by productlevel of stocks of finished products;
- Export demand and the state of order book for various products;
- Recent evolution of selling prices and their evolution over the next two to three months.

Production conditions: This part of the questionnaire obtains the business manager's understanding of the enterprises production conditions and manufacturing costs such as:

- Recent evolution of employment prospects for recruitment over the next two to three months;
- Recent trends in the prices of principal raw materials used and their future trend over the next two to three months;
- Bottlenecks and difficulties for production such as: difficulties in the supply of raw materials and semi-finished products, financial constraints, missing spare parts, shortage of equipment;
- production capacity utilization ratio of the enterprise.

5. Method of calculating the balances of opinion

The survey collects information on the opinion of business managers of selected enterprises. Individual responses are in the form of qualitative answers (increase, same, decrease), or (above normal, normal or below normal) or (good, average or bad). The processing of these data at the branch level or for total industry sector enables quantification of the survey responses by deriving an indicator of the recent evolution or estimated trend ranging from -100 to +100. This indicator is the balanced algebraic sum of the percentages of the answers of business managers of a rise (a +) and the percentage of the answers showing a fall (a -), and the percentage of the answers as the same (zero) is neutral.

Within branches of activity, individual enterprises are weighted by their sales turnover. For total industry sector individual indicators by branch are weighted by their respective value added. The idea is to compile an indicator of the recent evolution or estimated future trend of the economic activity of industry. This indicator is called the "balance of opinion".

The balance is the percentage of the enterprises which indicate an upward trend minus the percentage of enterprises which indicate a downward trend. Enterprises indicating stagnant trend (same, normal) are neutral.

These balances of opinion are calculated at the branch level, weighted by the turnover of the responding enterprises and are then aggregated to the sector level using weights proportional to the value added values of the sectors.

6. Computation formulae

Opinion balances on the general situation

Opinion balances by branch of activity

The answers of each business manager are equi-weighted - equal to 1. Opinion balances at the branch level of activity are calculated according to the following formula:

$$\text{Balances } i = \frac{1}{ni} \sum_{j=1}^{2} \sum_{k=1}^{nij} \text{Balance } ki \times 100$$

Notations:

i : Sub-branch of activity
j : Stratum
I : Number of sub-branches
nij : Number of enterprises in the stratum ij
ni : Number of enterprises in the branch i
nj : Number of enterprises in the stratum j
k : Number of the enterprise in the stratum
Balancek: Balance of opinion of the business manager for enterprise k
Balancei: Balance of opinion in the sub-branch i
Balanceij: Balance of opinion in stratum ij
Balance : Balance of opinion for industry
VA : Total value added for industry
VAi : Value added for sub-branch i
CA : Sales turnover of the enterprise in the survey
CAi : Total sales turnover for all enterprises in branch i
CAij : Total sales turnover for enterprises in stratum ij
CAk : Sales turnover for enterprise k

Opinion balances by branch of activity

$$\text{Balance}_b = \sum_{i=1}^{i=I} \frac{\text{Balance}_i \, VA_i}{VA}$$

At the level of the enterprise unit, the opinion balance indicator on the general situation is calculated by an average of balances by branches of activity, balanced by the value added of each branch.

$$\text{Balances} = \sum_{b=1}^{b=B} \frac{\text{Balances}_b \, VA_b}{VA}$$

Opinion balances on the activity of the enterprise

There are two types of questions about the activity of the enterprise:

Questions about the products (from 1 to 3 principal products).

In this case the answers are aggregated at the enterprise level by using sales turnover by product.

* At the stratum level the answers are balanced by the sales turnover of the surveyed enterprise.
* At the branch level activity, the opinion balances for each strata are balanced by the sales turnovers for all of the industrial enterprises belonging to each stratum.
* At the industry sector level opinion balances for each branch are balanced by the value added of the branches.

Questions about** enterprise activity **(production conditions)

Questions on the trend of enterprise production conditions: the answers are balanced by the enterprise sales turnover. Thus the balance of Balanceij opinion at the stratum level (I, J) will be:

$$\mathbf{Balance}_{ij} = \sum_{\mathbf{k=1}}^{n_{ij}} \text{Balance}_k \; CA_k / \mathbf{CA}_{ij} \times 100.$$

The opinion balance Balancei at the branch level of activity is a balance balanced by sales turnover of the enterprises in each stratum.

$$\text{Balance}_i = \sum_{j=1} CA_{ij}/CA_i \; \text{Balance}_{ij}$$

The opinion balance at the total industry sector level is balanced by the value added of the branches.

$$\text{Balance} = 1/VA \sum_{i=i}^{I} \text{Balance}_i \; VA_i$$

Estimates are calculated only from data provided by the respondents, thus CAij represents the total sales turnover of the respondents for stratum (I, J).

7. Seasonal adjustment

Occasionally, strong seasonal variations may disturb the stability of a time series, complicating analyses of the series. These variations can mask the underlying behavior of the series. In order to correctly appreciate the evolution of the opinion balances time series it is necessary to carry out seasonal adjustment. Such seasonal adjustment is undertaken using the TRAMO-SEATS additive model.

$$O_{t(CJO)} = S_t + C_t + D_t + I_t$$

The seasonal component is S_t. The cyclical component C_t includes variations due to long term trend of the economic cycle. The working days component D_t is the variation arising from the calendar effect. The irregular component is the residual variation I_t.

The use of the additive model is justified by the nature of the opinion balances which can take value negative or null which does suit a multiplicative model.

8. Guide for supervisors and respondents

This annex describes the contents of the questionnaire which will assist in its completion. This document initially describes the types of asked questions by clarifying the range of possible answers, it then focuses on the seasonal variations of activity and their impacts on the formulation of the opinions and finally it catalogues the questions according to the principal fields of studies: branches of activity, the enterprise and the product.

Types of questions

(Quantitative, dichotomic, qualitative)

Except for questions collecting general information about the enterprise the form of the questions are qualitative, obtaining the opinions of the business manager about the current situation and future prospects for the activity of the enterprise.

Some questions are dichotomic (Yes/No), but most have three possible responses. The range of possible responses is quite explicit on the survey questionnaire.

The quarterly survey questionnaire into the current situation and future prospects for industrial enterprises covers three topics:

Opinions of the business manager on the general economic situation of the branch of its activity:

- Good;
- Average;
- Bad.

And its future short-term prospects

- To improve;
- To remain the same one;
- To worsen.

Opinions of the business manager on the current activity of its company and intentions for the next three months. The responses are qualitative:

- ↗ : Indicate: increase, evolution upwards, trend upwards;
- ➔ : Indicate: remain the same;
- ↘ : Indicate: reduction, evolution downwards, downward trend.

And relate to:

- The production trend of the enterprise by product;
- The evolution of the level of the stocks finished products;
- Total foreign demand and demand trend;
- The recent evolution of the selling prices and their probable future trend over the next two to three months.

The respondent must clearly describe the principal products manufactured by the enterprise and their approximate shares of the total sales turnover. The respondent must then indicate the arrow representing their opinion for each previous question.

For the question about the state of the order books, the possible answers are:

- Above normal;
- Normal;
- Below normal.

Production condition

In this part of the questionnaire the business manager provides opinions concerning, production conditions and manufacturing costs. The respondent must identify the arrow representing their opinion for each of the following questions:

- Recent trends for persons employed and future recruitment intentions during next two to three months;
- Recent trends in the prices of the principal raw materials used and their probable trend during the next two to three months;

For bottlenecks and production difficulties:

- It is asked whether the enterprise operates at full capacity: Yes/No;
- If "No" the respondent is asked to provide the percentage of production capacity;
- The respondent is asked whether there are factors which impact on the production of the enterprise: Yes/No.

If the answer is "Yes" the respondent must indicate the main difficulties such as:

- Difficulties in the supply of raw materials and semi-finished products;
- Cash shortage;
- Lack of spare parts;
- Difficulties of flow;
- Insufficient equipment;
- Others (specified).

ANNEX 5. AVAILABILITY OF SHORT-TERM STATISTICS IDENTIFIED BY PILOT COUNTRIES

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available
	GDP by income	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available
	GDP by production	Available	Available	Available	Available	Available	Available	Available
	GDP by expenditure	Available	Non-Available	Available	Available	Non-Available	Non-Available	Available
	Quarterly Institutional sector accounts	Available Nothing mentioned	Non-Available Issues: - To establish a quarterly GDP balance.	Non-Available Issues: Quarterly sector accounts are not produced, mainly because of inadequate data and insufficient staff. There is also need for a reference material on methodology.	- No information about this indicator	Non-Available	Non-Available Issues: inadequate data and insufficient staff	Non-Available
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	Available	Available	Non-Available	Available	Available	Non-Available	Non-Available
	Production index for construction	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available
	Turnover index for retail trade by major division	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available
	Turnover index for industry by major division	Available	Available?	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Turnover index for other services by major division (excluding financial services and non-commercial services)	Non-Available Needs Assistance	Non-Available	Non-Available The compilation of these indices will require the conduct of new surveys. Since all the indices are new, it would help the compilers to learn from the experience of other ESCWA Member countries, already compiling such indices. Staff officers involved in the compilation of these indices also need to be familiarized with the guidelines provided in relevant UNSD and OECD Manuals.	Non-Available Issues: Lack of training on the international standards for the compilation. Lack of knowledge on the necessary coordination with other sources for the requirements of compilation. Lack of funding for the implementation of those activities, and for the training required.	Non-Available	Non-Available	Non-Available CAS hasn't conducted an Establishment census since 2004. This census is used as a sample frame for all executed economic surveys. A new establishment census should be conducted as it forms the core of a business register that can be used in the future.
	New orders index for industry by major ISIC division (for those that work on order)	Non-Available Needs Assistance	Non-Available	Non-Available The compilation of these indices will require the conduct of new surveys. Since all the indices are new, it would help the compilers to learn from the experience of other ESCWA member countries, already	- No information about this indicator	Non-Available	Non-Available	Non-Available CAS hasn't conducted an Establishment census since 2004. This census is used as a sample frame for all executed economic surveys. A new establishment census should be conducted as it

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
				compiling such indices. Staff officers involved in the compilation of these indexes also need to be familiarized with the guidelines provided in relevant UNSD and OECD Manuals.				forms the core of a business register that can be used in the future.
	New orders index for construction (building permits or housing starts)	Non-Available Needs Assistance	Non-Available Exist quarterly in the ministry of equipment	Available	- No information about this indicator	Non-Available	Available Issues: Excel is not enough. An integrated system is needed for better consistency and validation. TA from international organization to give support and expertise.	Non-Available Data was previously collected from the Ministry of Public Works until 2007. A survey on the execution of the work permits was done in 2002. Results were not published because of the high non-response rate. Currently, data is not collected and stored at CAS databases. There are no plans to revitalize this project in the future.
	Commodity production:	Available Issues: There is a delay in receiving	Available Annually	Non-Available	- No information about this indicator	Available	Non-Available	Non-Available Annual compilation

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Agricultural products	(CAPMAS) data from Ministry of Agriculture and Land Reclamation.						stopped in 2010. Plan to start compilation in 2016.
	Commodity production: Minerals	Available Issues: Quantitative data always have problems; the price data are more accurate.	Available Annually	Non-Available	- No information about this indicator	Available	Non-Available	Non-Available No data is available on this sector except data provided by Customs
	Commodity production: New car registrations	Available Issues: This indicator needs to be more detailed. Software is needed to assist in the collection of the data from the administrative records of the general administration of traffic.	Available Annually	Available	- No information about this indicator	Non-Available	Available	Available
	Commodity production: New commercial vehicle registrations	Available Issues: This indicator needs to be more detailed. Software is needed to assist in the collection of the data from the administrative records of the general administration of traffic.	Available Annually	Available	- No information about this indicator	Non-Available	Non-Available	Available Issues: The publication of this indicator by CAS stopped in 2010.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Commodity production: Tourist arrivals	Available Issues: some delays may occur if data are not received on time from the sources.	Available	Available	- No information about this indicator	Available	Available	Available Issues: In these statistics no differentiation is made between tourists and non-tourists.
3. Price Index	CPI	Available Issues: The current sample of rental units used in CPI does not include a sufficient number of units under the new rent law as compared with the number units subjected to the old rent law. The sample of rental units needs to be augmented to include a larger number of rental units under the new rent law so that the index for actual rents paid is more accurate and reflects the real changes in market rent. CAPMAS is in the process of developing a new more representative sample of rental units.	Available Issues: Insufficient IT materials; the use of tablets in statements' operations and input prices (material and software support) is needed.	Available	Available	Available	Available Issues: The CPI integrated system needed for better consistency and validation and up to date TA from international organizations to give support and expertise.	Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	PPI	Available	Available	Available	Available	Available	Available	Non-Available
	Import price index	Non-Available	Available	Non-Available	Non-Available	Available	Non-Available	Non-Available
	Export Price Index	Non-Available	Available	Non-Available	Non-Available	Available	Non-Available	Non-Available
4. Labour market indicators	Unemployment	Available Issues: The Labour Force Panel survey is no longer being conducted; the methodology used in conducting this survey needs to be restudied (from the sampling stage to the results stage).	Available	Available	Available	Available Issues: Labour market staff need capacity building in data dissemination	Non-Available	Non-Available Issues: Not given the recommended periodicity. There is a need for a dedicated team (additional human resources) and financial resources in order to conduct the Labour Force survey (LFS) on regular basis (quarterly or at least twice a year).
	Unemployment rate	Available Issues: The Labour Force Panel survey is no longer being conducted; the methodology used in conducting this survey needs to be restudied (from the sampling stage to the results stage).	Available	Available	Available	Available Issues: Labour market staff need capacity building in data dissemination	Non-Available	Non-Available Issues: Not given the recommended periodicity. There is a need for a dedicated team (additional human resources) and financial resources in order to conduct the Labor Force survey (LFS) on regular basis (quarterly or at least twice a year).
	Employment total and by economic activity	Available	Available	Non-Available	Available	Available	Non-Available	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Hourly wage rate	Available Issues: The indicators (weekly wage rate and hours of work) are compiled on an annual basis, but there is an interest to start producing them on a quarterly basis as per SDDS requirements.	Available Issues: produced annually not quarterly as recommended	Non-Available Issues: Training workshop and professional attachment to learn the methodology for the construction of a Wage Rate Index (Hourly wage rate). This STS is included in the priority list. The responsibility within MDPS is not yet assigned. There is a need to arrange for a country visit to learn from the compilation practice of a country in the region already compiling wage indices.	Available	Non-Available Issues: Capacity building needed to produce and disseminate this indicator in accordance with international standards.	Non-Available	Non-Available
	Hours of work	Available Issues: The indicators (weekly wage rate and hours of work) are compiled on an annual basis, but there is an interest to start producing them on a quarterly basis as per SDDS requirements.	Available Issues: Produced annually, not quarterly as recommended	Non-Available Issues: This indicator is not currently compiled and is not considered as a priority.	Available	Available	Non-Available	Non-Available Issues: Not given the recommended periodicity

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
5. External sector indicators	Exports and imports (of goods and services)	Goods-Available Issues: There are some problems with the data provided by the Customs as they only scrutinize items where custom tax applies. The quantity data are inaccurate and not recorded by the Customs Authority most of the time. Statistical software is needed for the data treatment and the production of the export and import of goods and services indicators Services: Available (at CBE) Issues: CAPMAS received technical assistance from the Arab Institute for Research and Training to start compiling them as well.	Available Issues: The harmonized classification system of the foreign trade in Arabic and a conversion from the old to the new classification (at the NSO level)	Available Regional training workshop on the conduct of Quarterly Foreign Investment Survey (in coordination with GCC stat).	Available Issues: the lack of control on Palestine borders makes it impossible to capture data at the borders.	Available	Available Issues: Difficulties in getting some services data directly from the main sources. Delays from some primary sources in providing data on time. Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. The CBO in cooperation with other institutions should expand data collections to address existing gaps.	Available Issues: The Central Bank wishes to improve external trade statistics to include freight & insurance costs in import statistics based on business surveys, Tourist surveys for a better estimation of travel services, improve data reported from General security. Additional technical assistance is needed to conduct surveys on importers & exporters of business services.
	International investment position (IIP), specify balances and components	Available No issues	Available No issues	Non-Available Issues: not available because of lack of information on	Available Issues: it is necessary to provide and publish a guide on	Available Issues: BoP staff need FDI survey to be updated on a regular basis to	Non-Available STSs are produced but not published (only for internal uses)	Available Issues: Not published yet, awaiting approval

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
				external liabilities of privately owned companies (absence of information on the private sector's foreign financial assets and liabilities). Capacity building is needed to meet SDDS data requirements. Steps are being taken to fill this data gap. Regional training workshop on the conduct of Quarterly Foreign Investment Survey (in coordination with GCC stat) is needed	the compilation process of IIP.	update the data for both BoP & IIP		The BDL expressed the need for technical assistance to implement the Foreign Direct Investment (FDI) for the non-financial sector.
	Official reserve assets	Available No issues	Available No issues	Available	Available	Available	Non-Available STSs are produced but not published (only for internal uses)	Available
	External debt (by sector, maturity and foreign currency)	Available No issues	Available Issues: Published annually. Quarterly information exists at the central bank, but it is not published. Methodological problems do not	Non-Available Issues: not available because of lack of information on private sector external debt. Steps are being taken to fill this data gap.	Available Issues: It is still necessary to provide metadata pertaining to the concepts, methodologies and quality issues to the users.	Available Issues: needs to compile external debt according to residency.	Available Issues: Delays from some primary sources in providing data on time. Enhance data accessibility and timeliness of	Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
			allow this indicator to be publish at the quarterly level.				publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. The CBO in cooperation with other institutions should expand data collections to address existing gaps.	
6. Financial sector indicators	Central Bank net foreign assets	Available No issues	Available No issues	Available	Available monthly	Available	Available Issues: Proper training on board + Qualification such as ACCA + CMA, Degree Needed	Available
	Central Bank domestic lending	Available No issues	Available No issues	Available	Available monthly	Available	Available Issues: Training/coaching needed	Available
	Central Bank reserve money	Available No issues	Available No issues	Available	Available monthly	Available	Available Issues: Training/coaching needed	Available
	Depository corporations net foreign assets	Available No issues	Available No issues	Available	Available quarterly	Available	Available	Available
	Depository corporations domestic lending	Available No issues	Available No issues	Available	Available quarterly	Available	Available Issues: Providing timely statistics	Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
							without compromising their quality.	
	Depository corporations broad money liabilities	Available No issues	Available No issues	Available	Available quarterly	Available	Available Issues: Providing timely statistics without compromising their quality.	Available
	Other financial corporations balance sheet, assets and liabilities by sector.	Available: Issues: Delays in receiving data from sources which affects release time	Available: Issues: Exist at the level of the Central Bank but not published. the companies of leasing only	Available	Available Issues: Quarterly basis, and only includes insurance companies, lending companies and the investment fund.	Non-Available Issues: Not produced due to limited resources. High need is to compile and disseminate Other Financial Corporations and non-financial corporations surveys on a monthly basis.	Non-Available Because they are not included in the priority list of STSs	Available
	Financial corporate profits	Available: Issues: Delays in receiving data from sources which affects release time	Available: Issues: Exist at the level of the Central Bank but not published. (annually)	Available	Available Issues: Quarterly basis, and only include insurance companies, lending companies and the investment fund.	Non-Available Issues: Financial corporate profit in Jordan only covers banks (other intermediaries and insurance companies are not covered).	Non-Available Because they are not included in the priority list of STSs	Non-Available
	Financial corporate debt	Available: Issues: Delays in receiving data from sources which affects release time	Available: Issues: Exist at the level of the Central Bank but not published.	Available	Available Issues: Quarterly basis, and only include insurance companies, lending	Non-Available Issues: Financial corporate debt in Jordan only covers banks (other	Non-Available Because they are not included in the priority list of STSs	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
					companies and the investment fund.	intermediaries and insurance companies are not covered).		
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	Not-Available	Available	Available	Available	Available Produced and disseminated on a semi-annual basis.	Available Issues: Providing timely statistics without compromising their quality.	Non-Available
7. General government sector indicators	Revenue	Available Issues: The Economic authorities (NIB, SIF) use the accrual accounting basis, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form. Assistance needed in getting more entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority for investments, Egypt Export & Convention	Available	Available Technical assistance has been sought from the IMF Statistics Department (in 2014) for the provision of hands on type of training on the implementation of some of the GFSM 2001 recommendations, starting with classifications.	Available Issues: The MOF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to improve its capacity to produce government statistics for local government on a quarterly basis in order to have the full picture about general government operations. Capacity building has to be enhanced for the local government through training activities; however, local government	Available Issues: Central Government Operations and Central Government Debt are produced and disseminated in a monthly basis, while General Government Operations on a yearly basis.	Available	Available Although the classification of accounts is based on GFS 2001, the accounting is based for issued STEIs on cash basis accounting. Accurate statistical compilation and dissemination are a challenge. They are a priority for the Ministry of Finance, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of MoF's role in the government

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		Authority, Egypt seaports Authority).			financing problems prevents them from enhancing the capacities of their employees.			
	Expense	Available Issues: The Economic authorities (NIB, SIF) use accrual accounting, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form. Assistance needed in getting more entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority for investments, Egypt Export & Convention Authority, Egypt seaports Authority).	Available Issues: Should use the new international classifications of administrative functions in presenting the public expenses.	Non-Available Issues: Would be available only after the implementation of GFS 2001 principles. Technical assistance is being sought from the IMF Statistics Department to help the MoF with the full implementation of GFSM 2001 concepts and classification. (The MOF compiles data on gross debt but these data are not disseminated. The reason is coverage.)	Available Issues: The MoF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to improve its capacity to produce government statistics for local government on a quarterly basis in order to have the full picture about general government operations. Capacity building has to be enhanced for local government through training activities; however, local government financing problems prevents them from enhancing the capacities of their employees.	Available Issues: Central Government Operations and Central Government Debt are produced and disseminated on a monthly basis, while General Government Operations is on a yearly basis.	Non-Available Issues: All the indicators would be produced and published after the full implementation of GFSM 2001 concepts and classification. Technical assistance is being sought from the IMF Statistics Department.	Available Although the classification of accounts is based on GFS 2001, the accounting is based for issued STEIs on cash basis accounting. Accurate statistical compilation and dissemination are a challenge. They are a priority for the Ministry of Finance, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of MoF's role in the government.
	Net operating balance (=	Available	Available	Non-Available	Available	Available	Non-Available	Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Revenue – Expense)	Issues: The Economic authorities (NIB, SIF) use accrual accounting, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form. Assistance needed in getting more entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority for investments, Egypt Export & Convention Authority, Egypt seaports Authority).		Issues: Would be available only after the implementation of GFS 2001 principles. Technical assistance is being sought from the IMF Statistics Department to help the MOF with the full implementation of GFSM 2001 concepts and classification. (The MOF compiles data on gross debt but these data are not disseminated. The reason is coverage.)	Issues: The MoF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to improve its capacity to produce government statistics for local government on a quarterly basis in order to have the full picture about general government operations. Capacity building has to be enhanced for local government through training activities; however, local government financing problems prevents them from enhancing the capacities of their employees.	Issues: Central Government Operations and Central Government Debt are produced and disseminated on a monthly basis, while General Government Operations is on a yearly basis.	Issues: All the indicators would be produced and published after the full implementation of GFSM 2001 concepts and classification. Technical assistance is being sought from the IMF Statistics Department.	Although the classification of accounts is based on GFS 2001, the accounting is based for issued STEIs on cash basis accounting. Accurate statistical compilation and dissemination are a challenge. They are a priority to the Ministry of Finance, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of MoF's role in the government.
	Net acquisition of non-financial assets	Not-Available	Non-Available Issues: Technical assistance is possibly needed. Exists but not published. On the other hand, national	Non-Available Issues: Would be available only after the implementation of GFS 2001 principles. Technical assistance is being	Available Issues: The MoF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to	Non-Available Issues: Due to limited resources	Non-Available Issues: All the indicators would be produced and published after the full implementation of GFSM 2001	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
			accounting, on the basis of the annual public accounting records, has calculated and published all net acquisitions on non-financial goods disposals by the government.	sought from the IMF Statistics Department to help the MoF with the full implementation of GFSM 2001 concepts and classification. (The MoF compiles data on gross debt but these data are not disseminated. The reason is coverage)	improve its capacity to produce government statistics for local government on a quarterly basis in order to have the full picture about general government operations. Capacity building has to be enhanced for local government through training activities; however, local government financing problems prevents them from enhancing the capacities of their employees.		concepts and classification. Technical assistance is being sought from the IMF Statistics Department.	
	Expenditure	Available Issues: The Economic authorities (NIB, SIF) use accrual accounting, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form. Assistance needed in getting more	Non-Available	Available Technical assistance has been sought from the IMF Statistics Department (in 2014) for the provision of hands on type of training on the implementation of some of the GFSM 2001 recommendations,	Available Issues: The MoF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to improve its capacity to produce government statistics for local government on a quarterly basis in order to have the	Available Issues: Central Government Operations and Central Government Debt are produced and disseminated on a monthly basis, while General Government Operations on a yearly basis.	Available	Available Although the classification of accounts is based on GFS 2001, the accounting is based for issued STEIs on cash basis accounting. Accurate statistical compilation and dissemination are a challenge. They are a priority to the Ministry of

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority for investments, Egypt Export & Convention Authority, Egypt seaports Authority).		starting with classifications.	full picture about general government operations. Capacity building has to be enhanced for local government through training activities; however, local government financing problems prevents them from enhancing the capacities of their employees.			Finance, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of MoF's role in the government.
	Net lending/net borrowing (= Revenue - Expenditure)	Available Issues: The Economic authorities (NIB, SIF) use accrual accounting, while the Ministry of Finance uses the cash basis, thereby hindering efforts to consolidate, and present the data in a unified form. Assistance needed in getting more entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority	Available	Available Technical assistance has been sought from the IMF Statistics Department (in 2014) for the provision of hands on type of training on the implementation of some of the GFSM 2001 recommendations, starting with classifications.	Available Issues: The MoF has the capacity to produce the GFS for the central government on a quarterly basis, but it still needs to improve its capacity to produce government statistics for local government on a quarterly basis in order to have the full picture about general government operations. Capacity building has to be enhanced for local	Available Issues: Central Government Operations and Central Government Debt are produced and disseminated on a monthly basis, while General Government Operations on a yearly basis.	Available	Available Although the classification of accounts is based on GFS 2001, the accounting is based for issued STEIs on cash basis accounting. Accurate statistical compilation and dissemination are a challenge. They are a priority for the Ministry of Finance, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		for investments, Egypt Export & Convention Authority, Egypt seaports Authority).			government through training activities; however, local government financing problems prevents them from enhancing the capacities of their employees.			MoF's role in the government.
	Gross debt	Available Issues: Technical assistance is needed to publish general government data on a monthly basis and to improve the quality of some data. They also need assistance in getting more entities to use the GFSM 2001 system (such as General Authority for supply commodities, General Authority for investments, Egypt Export & Convention Authority, Egypt seaports Authority).	Available Issues: The establishment of enhanced coordination with the MoF in terms of public debts.	Non-Available Issues: The MoF compiles data on gross debt but these data are not disseminated. The reason is coverage. Would be available only after the implementation of GFS 2001 principles. Technical assistance is being sought from the IMF Statistics Department to help the MOF with the full implementation of GFSM 2001 concepts and classification. (The MOF compiles data on gross debt but these data are not disseminated. The reason is coverage).	Available Quarterly basis for central government, and on an annual basis for general government	Available Issues: Central Government Operations and Central Government Debt are produced and disseminated on a monthly basis, while General Government Operations on a yearly basis.	Non-Available Issues: The MoF compiles data on gross debt but these data are not disseminated. The reason is coverage.	Available Subject to many revisions due to delays in publishing GDP figures by CAS and relying on IMF estimates during the gap period. Accurate statistical compilation and dissemination are a challenge. They are a priority for MoF, internally for policy analysis and formulation, and in general, for transparency reasons given the sensitivity of MoF's role in the government.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
8. Household sector indicators	Household disposable income	Available Issues: Survey is undertaken every two years and the recommended periodicity of the indicator is quarterly. Technical assistance is needed in seasonal adjustment methods in the income, expenditure and consumption household survey.	Available Issues: The survey concerning household revenue and expenditure is undertaken every five years. Current periodicity is yearly whereas the recommended is quarterly.	Non-Available Reason is data gaps and insufficient staff. These are not priority STSs.	Non-Available Issues: Data sources have limited capacity to provide the required information about household accounts. Limited information is available to compile the indicators on a quarterly basis since the Palestinian Expenditure and Consumption Survey (PECS) is conducted every 3 years. Data on net property income is available from BoP statistics on an annual basis only, and the household saving estimates are not available.	Not disseminated but can be calculated. Issues: The DOS is responsible for conducting on a semi-regular basis Household Expenditure and Income Survey. The survey has given special attention to data on household income from all possible sources: income from employment, income of own account, rent income, property income. Also, household disposable income can be calculated.	Non-Available Issues: The main reasons for not producing them are data gaps and insufficient staff. These are not priority STSs.	Non-Available There is lack in human and financial resources to conduct surveys needed to compile these indicators.
	Household saving	Available Issues: Survey is undertaken every 2 years and the recommended periodicity of the indicator is	Available Issues: The survey concerning household revenue and expenditure is undertaken every five years.	Non-Available Reason is data gaps and insufficient staff. These are not priority STSs.	Non-Available Issues: Data sources have limited capacity to provide the required information about	Non-Available Issues: DOS has limited capacity to produce some other Household indicators such as Household debt,	Non-Available Issues: The main reasons for not producing them are data gaps and insufficient staff.	Non-Available There are insufficient human and financial resources to conduct surveys

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		quarterly. Technical assistance is needed on seasonal adjustment methods in the income, expenditure and consumption household survey.	Current periodicity is yearly whereas the recommended is quarterly.		thousehold accounts. Limited information is available to compile the indicators on a quarterly basis since the Palestinian Expenditure and Consumption Survey (PECS) is conducted every 3 years. Data on net property income is available from BoP statistics on an annual basis only, and household saving estimates are not available.	Household savings according to relevant international standards.	These are not priority STSs.	needed to compile these indicators.
	Household debt	Not-Available	Available	Non-Available	Non-Available	Non-Available	Non-Available	Non-Available
	Other as relevant: debt service and principal payments, etc	Not-Available	Available Issues: The survey concerning household revenue and expenditure is undertaken every five years. Current periodicity is yearly whereas the recommended periodicity is quarterly.	Non-Available Reasons are data gaps and insufficient staff. These are not priority STSs.	Non-Available Issues: Data sources have limited capacity to provide the required information about the households' accounts. Limited information is available to compile the	Non-Available Issues: DOS has limited capacity to produce some other Household indicators such as Household debt, Household savings according to relevant international standards.	Non-Available Issues: The main reasons for not producing them are data gaps and insufficient staff. These are not priority STSs.	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
					indicators on a quarterly basis since the Palestinian Expenditure and Consumption Survey (PECS) is conducted every 3 years. Data on net property income is available from the Balance of Payments statistics on an annual basis only, and the household saving estimates are not available.			
9. Non-financial corporations sector indicators	Non-financial corporate profits	Not available on quarterly basis (only annually) Issues: There is a delay in receiving data from companies, especially for the private sector, where the balance sheets and financial accounts should be received three months after the end of the reference year, but some companies delay it up to seven or eight months.	Available Issues: Published annually and not quarterly as recommended. The introduction of certain and particular credit institutions, financial mediators and insurance companies in the financial institutions sector. The other financial indicators are now established annually and only	Non-Available Issues: Absence of source data and inadequate staff resources. Request has been made for the definition of "Non-financial corporate profits". The term "profits" indicates the use of business accounting terminology. The term "surplus" is used for economic accounting.	Non-Available Since no national need and no urgent demand from data users exist, those indicators are not produced. However, due to the uncertainty and fluctuations in the Palestinian economy, it is planned to start collecting these indicators.	Non-Available Issues: Not compiled within the Jordanian statistical system due to the limited financial and human resources. Building staff capacity is essential to be able to produce these indicators in the near future. CBJ is very interested in producing these indicators.	Non-Available Issues: Responsibility for the 3 STSs on Non-financial corporate profits is not yet assigned. The main reason for not producing them is the absence of source data and inadequate staff resources. These are not included in the priority list of STSs.	Non-Available The current VAT declaration doesn't allow computing non-financial corporate profits on a quarterly basis.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
			published after two years.					
	Non-financial corporate debt	Not available on quarterly basis (only annually) Issues: There is a delay in receiving data from companies, especially for the private sector, where the balance sheets and financial accounts should be received three months after the end of the reference year, but some companies delay it up to seven or eight months.	Available Issues: Published annually and not quarterly as recommended. The introduction of certain and particular credit institutions, financial mediators and insurance companies in the financial institutions sector. The other financial indicators are now established annually and only published after two years.	Non-Available Issues: Absence of source data and inadequate staff resources. These are not included in the priority list of STSs. There is need for further guidance and clarifications on this data set.	Non-Available Since no national need and no urgent demand from data users exist, those indicators are not produced. However, due to the uncertainty and fluctuations in the Palestinian economy, it is planned to start collecting these indicators.	Non-Available Issues: Not compiled within the Jordanian statistical system due to limited financial and human resources. Building staff capacity is essential to be able to produce these indicators in the near future. CBJ is very interested in producing these indicators.	Non-Available Issues: Responsibility for the 3 STSs on Non-financial corporate profits is not yet assigned. The main reasons for not producing them are the absence of source data and inadequate staff resources. These are not included in the priority list of STSs.	Non-Available The current VAT declaration doesn't allow computing non-financial corporate profits on a quarterly basis.
	Other as relevant	Not available on quarterly basis (only annually) Issues: There is a delay in receiving data from companies, especially for the private sector, where the balance sheets and financial accounts should be received three months after	Available Issues: Published annually and not quarterly as recommended. The introduction of certain and particular credit institutions, financial mediators and insurance companies in the financial institutions' sector.	Non-Available Issues: Absence of source data and inadequate staff resources. These are not included in the priority list of STSs. There is need for further guidance and clarifications on this data set.	Non-Available Since no national need and no urgent demand from data users exist, those indicators are not produced. However, due to uncertainty and fluctuations in the Palestinian economy, it is planned to start	Non-Available Issues: Not compiled within the Jordanian statistical system due to limited financial and human resources. Building staff capacity is essential to be able to produce these indicators in the near future. CBJ is	Non-Available Issues: Responsibility for the 3 STSs on Non-financial corporate profits is not yet assigned. The main reasons for not producing them are the absence of source data and inadequate staff resources. These	Non-Available The current VAT declaration doesn't allow computing non-financial corporate profits on a quarterly basis.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		the end of the reference year, but some companies delay it up to seven or eight months.	The other financial indicators are now established annually and only published after two years.		collecting these indicators.	very interested in producing these indicators.	are not included in the priority list of STSs.	
10 Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	Available No issues	Available	Available	Available quarterly	Available	Non-Available	Available
	Exchange rates, as relevant spot and forward markets	Available No issues, however training on compiling and marketing various indices would be useful especially for DJ indices or S&P companies (already merged for a while).	Available	Available	Available	Available	Non-Available	Available
	Nominal and real effective exchange rate	Not- Available	Non-Available Issues: Exist but not published. The executives in the central bank hope to have technical assistance on this subject.	Non-Available Nominal (monthly) and effective exchange rates (quarterly) are produced by the QCB but not published because of lack of confidence in the compilation methodology.	Non-Available Not produced since Palestine does not have its own national currency and therefore cannot determine the exchange or interest rates.	Non-Available Issues: Nominal and real effective exchange rate produced by IMF and taken by CBJ. For official use only.	Non-Available CBO compiles but does not publish this STS as it is only for internal use.	Non-Available
	Stock market indicators	Available No issues	Available	Available	Available	Available	Available	Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
							Issues: Some difficulties obtaining information from external vendors.	
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	Not- Available	Available	Available	-No information	Not sure	Non-Available	Available
11. Real estate market indicators	Residential property price index	Not -Available	Non-Available	Available	Non-Available	Available	Available	Non-Available
	New house sales	Not -Available	Non-Available	Non-Available Not considered a priority.	Non-Available Issues: PCBS does not have the capacity to produce those indicators due to lack of data sources needed to build a representative sample and to derive the weights. Building the capacity of current and new staff is essential to be able to produce these indicators. Staff members should participate in technical missions and consider best country practices	Non-Available	Non-Available These indicators are currently not considered a priority.	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
					and experiences on this issue, while keeping in mind the difficulties of compilation and the fact that few countries currently produce them.			
	Existing house sales	Not -Available	Non-Available	Non-Available Not considered a priority.	Non-Available Issues: PCBS does not have the capacity to produce those indicators due to lack of data sources needed to build a representative sample and to derive the weights. Building the capacity of current and new staff is essential to be able to produce these indicators. Staff members should participate in technical missions and consider best country practices and experiences on this issue, while keeping in mind the difficulties of compilation and the fact that few countries currently produce them.	Non-Available	Non-Available These indicators are currently not considered a priority.	Non-Available

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
12. Economic sentiment	Consumer confidence	Available (Not NSS)	Non-Available	Available	Non-Available	Non-Available	Non-Available	Non-Available
	Business confidence	Available (Not NSS)	Available	Available	Non-Available	Non-Available	Non-Available	Available
	Composite Business Cycle Indicators: Leading Indicator	Not-Available	Non-Available	Non-Available Issues: The main reasons for not producing the composite indicators are difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Non-Available Issues: The compilation of these indicators needs more skilled and knowledgeable human resource, and therefore stafsf capacity-building is required. Limited or lack of data sources constitutes a major obstacle to the compilation of the indicators.	Non-Available Issues: Limited financial and human skill resources to perform the surveys. Building the capacity of staff is essential to be able to produce these indicators in the near future since CBJ is very interested in producing them	Non-Available Issues: Difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Non-Available Issues: Not published.
	Composite Business Cycle Indicators: Coincident Indicator	Not-Available	Non-Available	Non-Available Issues: The main reasons for not producing the composite indicators are difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Non-Available Issues: The compilation of these indicators needs more skilled and knowledgeable human resources, and therefore staff capacity-building is required. Limited or lack of data sources constitutes a major obstacle to the compilation of the indicators.	Non-Available Issues: Limited financial and human skill resources to perform the surveys. Building the capacity of staff is essential to be able to produce these indicators in the near future since CBJ is very interested in producing them.	Non-Available Issues: Difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Available Published regularly

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Composite Business Cycle Indicators: Lagging Indicator	Not-Available	Non-Available	Non-Available Issues: The main reasons for not producing the composite indicators are difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Non-Available Issues: The compilation of these indicators needs a more skilled and knowledgeable human resource, and therefore staff capacity-building is required. Limited or lack of data sources constitutes a major obstacle to the compilation of the indicators.	Non-Available Issues: Limited financial and human skill resources to perform the surveys. Building the capacity of staff is essential to be able to produce these indicators in the near future since CBJ is very interested in producing them.	Non-Available Issues: Difficulties related to compilation and data gaps. These STSs are also not considered a priority.	Non-Available

ANNEX 6. CAPACITY DEVELOPMENT NEEDS AND OTHER ISSUES IDENTIFIED BY PILOT COUNTRIES FOR PRIORITY SHORT-TERM STATISTICS

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
GDP by production/income/expenditure and Flash	National accounts staff require technical assistance in producing a number of indices and indicators to estimate quarterly GDP (by production and expenditure) by current and constant prices (services, government and investment). There is a need for models to be used in the estimation of the QNAs. Technical assistance is needed in compiling Quarterly Supply and Use Tables. Quarterly GDP using the income approach is not compiled due to lack of data. Flash GDP is not produced. Finding better measurements for the informal sector has emerged as a key issue for national accounts.	Quarterly GDP using the expenditure approach is not produced due to lack of information sources and methodologies. The national accounts should move to the SNA2008. It's urgent to establish an assessment framework for data quality; to establish a quarterly GDP balance; and to establish official rules of data exchange. Flash GDP not produced (ANNEX table states it is produced annually). NOTE: Tunisian accountants use ERETES software, EUROSTAT shareware, to make and disseminate annual national accounts. Technical assistance from INSEE allows staff to be able to use the tool conveniently.	In country on-the-job training on independent estimation of GDP by expenditure, in particular, on the estimation of capital formation and on the calculation of capital consumption expenditure. In country on-the-job training on the benchmarking process and on seasonal adjustment techniques. Advice on acquisition of appropriate time series oriented data base software for the computation of quarterly GDP, as well as for the identification of software for benchmarking and seasonal adjustments. Quarterly GDP by income is not produced mainly because of difficulties in identifying data sources, lack of quarterly information	Flash GDP estimates on a quarterly basis in addition to GDP estimates using the income approach are not compiled. PCBS lacks the capacity to compile GDP using the income approach due to non-availability of data from sources. For instance, both compensation of employees for agriculture and informal sectors are not available. In addition, it is not possible to estimate the operating surplus and mixed income from available sources, and this leads to their estimation as residuals.	GDP estimates by production are compiled on a quarterly basis according to SNA 93. NA team is working to upgrade to 2008 SNA. GDP expenditure approach is much needed and requires capacity building. CBJ strongly recommend production of GDP by expenditure as its components are necessary for their work (forecasting/ modeling). Practical training on seasonal adjustment techniques is needed. Limited or lack of data sources including conducting necessary surveys, in addition to lack of skilled and knowledgeable human resources constitutes the major obstacles to the compilation of GDP by the Expenditure approach.	Quarterly GDP by expenditure and income and Flash GDP are not produced. Flash estimates of quarterly GDP were estimated in the past but it has not been a priority and are not produced mainly because of the lack of monthly indicators on volume changes. Quarterly GDP by income is not produced mainly because of difficulties in identifying data sources, lack of quarterly information on operating surplus and compensation of employees. Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination.	Flash estimates: The Central Administration of Statistics (CAS) undertook this exercise once in 2012 and didn't repeat it again since. Currently, due to delays in obtaining basic data on time from other government agencies and given the lack of periodic surveys Flash gross domestic product (GDP) estimates are not on CAS agenda for the near future. Challenges regarding GDP by production and expenditure: • Administrative and business survey data is needed to be able to estimate GDP more accurately; • Technical assistance is needed to improve FISIM estimation; • There is an urgent need to construct a new Lebanese Business Register that will permit CAS to rely less on the Ministry of Finance (MOF) register. The register will allow

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Efforts to improve coverage have been made using some data sources such as the economic census.		on operating surplus and compensation of employees. Flash estimates of quarterly GDP estimates are not a priority and are not produced mainly because of the lack of monthly indicators on volume changes.				CAS to conduct business surveys itself and improve the quality of GDP estimation. In the current situation, MoF does not share the taxpayer database with CAS for confidentiality reasons; • The addition of new staff participating in the compilation of national accounts created the need for specialized national accounts training; • The IT infrastructure needs to be updated to take into consideration accounts improvements in the future; • Any additional new data sources, when they become available, will create a shortage in the staff allocated to compiling national accounts at CAS; • Rigidity in the legislation doesn't permit CAS to recruit temporary external specialized staff for

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
							specific tasks. This situation has increased the workload on the existing staff and at the same time has limited the resources for improvements in the future.
Producer Price Index	Regional workshops for discussing the construction major groups for Producer Price Index and share applied practical exercises among the countries of the region Note: Using data collected from establishments on the total value of production at basic prices, CAPMAS is trying to expand the index coverage to include construction but it has some problems with data sources.	Insufficient IT materials; the use of tablets in statements' operations and input prices (material and software support) is needed. Technical assistance is needed to introduce agricultural products in calculating the producer prices indices.	There is a need to: Familiarize compilers with the recommendations of the IMF PPI Manual 2004, through the conduct of training workshops. There is a need for UNSD to arrange for the translation of the PPI Manual into Arabic. Review the PPI questionnaire to ensure that it collects actual transaction prices of products actually sold to customers and that the transactions are specified in enough detail so that representative products are selected and the same transactions are surveyed in consecutive periods.			Lack of well-qualified computerized system used in the production of this index. The index calculation still in Excel file. Training programs needed. Current periodicity is quarterly whereas the recommended periodicity is monthly.	CAS is currently preparing to launch a new PPI covering the whole Lebanese territory with the assistance of IMF. Capacity needs: The existence of a business register is a prerequisite to the compilation of this index.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
			Ensure consistency with national accounts data, especially while computing the weights at industry/product group (ISIC Rev 3) hierarchical levels.				
Import and Export Price Index	Use best practices from other countries to reproduce the import and export indices and solve the problem of inaccurate quantity data for foreign trade. Import and export indices are needed for better GDP estimates, but have been discontinued since 2007 because of a change in the trade system from a private trade system to a general one. Note: CAPMAS stopped the compilation of the index due to a change in the foreign trade system from a private to a general system (difficulties with the	Insufficient IT materials; the use of tablets in statements' operations and input prices (material and software support) is needed.	Regional training workshop plus secondment to a statistical office with experience in the compilation of Import Price Indices. On-the-job training and review of work-in-progress on the development of methodology for the compilation of the Export Price Index (in coordination with GCC stat). Work on these indices has been started with technical assistance from GCC stat. MDPS welcomes any arrangement to learn from the experiences of other countries in the region in order to build confidence and improve the methodology for the compilation of the	Limited capacity to produce both the import and export price index in accordance with the international standards and good practices. Lack of quantity data in most of the Value Added Tax vouchers. VAT vouchers represent the large part of both imports and exports with Israel (approximately 48% of imports, and 80% of exports). Traders are not committed to provide the quantities although quantities are one of the variables in VAT template.	IMXP index is weak, not seasonally adjusted, requires capacity building. Data is retrieved from DOS which obtains its raw data from Customs and it is better to be compiled by DOS rather than CBJ. The staff of DOS and CBJ are very interested to reproduce IPI and EPI of good quality for which they need capacity building/training.	Not produced Capacity development is needed to produce and disseminate this indicator in accordance with international standards. Export & Import Price Index: Work on the progress of an Export/Import Price Index a project coordinated with CBO, Customs (ROP) and NCSI started in 2012. A new integrated systemized linked all data sources. The project is proposed to be launched last quarter of 2016.	CAS is compiling export and import price indices but they are not published. Figures are used internally for National Accounts purposes. Capacity needs: An assessment mission that works on real data is needed to determine the capacity building to produce these indicators.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	data provided by Customs). The Customs Authority only cares for taxable items, and thus non-taxable import and export items are not well documented in terms of prices. In addition, the quantitative data are inaccurate and are not recorded most of the time. CAPMAS is making many steps to cooperate with the Authority to improve the quality of quantity data and on the other side office editing for Customs data takes place.		export and import price index. A study tour to learn from peers would also help in the identification of common problems and solutions. NOTE: An import price index was computed, some five years back, using the data received from the Customs Department. The index showed very irregular movements because of unit value bias. It is no longer produced. There is a need to learn from experiences of other countries.				
Turnover index of Industry by major division	There is a delay in obtaining data from some sources. A lot of effort is being made by staff to have them on time; otherwise the data is estimated. Technical assistance is needed to use other countries' best practices to update the index of industry for major divisions	No assessment of this indicator is provided in the reports and no mention of any kind of assistance needed. According to the "Status of STS" annex, this indicator is currently compiled in Tunis.	The compilation of this indicator will require the conduct of new surveys. It would help the compilers to learn from the experience of other ESCWA Member countries, already compiling such indices. Staffs involved in the compilation of these indices also need to	Lack of training on the international standards for the compilation. Lack of knowledge on the necessary coordination with other sources for the requirements of compilation. Lack of funding for the implementation of those activities, and for the training required.		Difficulties in identifying data sources, difficulties related to compilation and methodological issues. NCSI established a survey and plans to publish last quarter of 2015. There was earlier work on collecting quarterly turnover but this has	No plans to produce it in the near future

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	(base year and weights).		be familiarized with the guidelines provided in relevant UNSD and OECD Manuals. The acquisition of the UN Manual on "International Recommendations for the Industrial Production Index, 2009" in Arabic would be of great help.	PCBS, with the aid of the Technical Assistance mission, is preparing a plan to start compiling them.		since been discontinued.	
Production index for industry by major division	Technical assistance is needed in producing an electricity index (part of the production index for industry (electricity is one of the divisions).	The team at the NSI would like to obtain a powerful machine to use in order to reduce production time of the index (iPad to collect information).	In country mission needed to review the methodology under development for the construction of a Quarterly Production index for the Industrial sector (work currently in progress). The compilation of this index will require the conduct of new surveys. It would help the compilers to learn from the experience of other ESCWA Member countries, already compiling such indices. Staffs involved in the compilation of these indices also need to		Production indices require more field staff to collect data. Currently staffing is insufficient.	Difficulties in identifying data sources, difficulties related to compilation and methodological issues. Major part of industrial production could easily be covered from current data sources. NCSI established a survey and plans to publish last quarter of 2015.	Capacity needs: The construction of a business register linked with the Ministry of Finance, Lebanese customs, and other concerned ministries will guarantee frequency and timeliness of the production index. Training on sampling methods specific for economic surveys is needed.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
			be familiarized with the guidelines provided in relevant UNSD and OECD Manuals. The acquisition of the UN Manual on "International Recommendations for the Industrial Production Index, 2009" in Arabic would be of great help. Many of the companies also respond to the other surveys conducted by the MDPS. There is need to harmonize and streamline data collection activities in order to reduce respondent form-filling burden.				
Turnover index for retail trade by major division	This indicator is not produced by Egypt and needs technical assistance to start compiling it	This indicator is not produced by Tunisia. However, no mention of any needed assistance to start the compilation process. NOTE: Although annual turnover is collected by the NSO through its annual survey, this information is not used and therefore not	A priority index as it is needed for national accounts at constant prices. The compilation of this index will require the conduct of new surveys. It would help the compilers to learn from the experience of other ESCWA Member countries, already compiling	Lack of training on international standards for their compilation. Lack of knowledge on the necessary coordination with other sources for the requirements of compilation. Lack of funding for the implementation of those activities, and	DoS is interested in a turnover index in retail.	STS Turnover index for Retail trade by major division is a priority index as it is needed for national accounts at constant prices.	No plans to produce it in the near future.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		published in spite of its existence at an annual frequency.	such indices. Staff officers involved in the compilation of these indices also need to be familiarized with the guidelines provided in relevant UNSD and OECD Manuals.	for the training required. PCBS, with the aid of the Technical Assistance mission, is preparing a plan to start compiling them.			
Production index for construction	This indicator is not produced by Egypt and needs technical assistance to start compiling it.	Not currently produced. Work in progress by the NSO. A committee, joining the NSO and the Ministry of Equipment, is set to realize this index that has been previously produced annually by the same ministry.	A priority index that is not currently produced. There is a need to provide training on the compilation of this index. The compilation of this index will require the conduct of new surveys. It would help the compilers to learn from the experience of other ESCWA Member countries, already compiling such indices. Staff officers involved in the compilation of these indices also need to be familiarized with the guidelines provided in relevant UNSD and OECD Manuals.	Lack of training on the international standards for the compilation. Lack of knowledge on the necessary coordination with other sources for the requirements of compilation. Lack of funding for the implementation of those activities, and for the training required. PCBS, with the aid of the Technical Assistance mission, is preparing putting a plan to start compiling them.	DoS is interested in producing a construction index.	Production index for construction is a priority, given the growing share of construction activity in the economy. There is a need to provide training on the compilation of this index.	Capacity needs: Technical assistance to help CAS construct a new construction permits database. Technical assistance is needed to prepare a strategy to compile this index.
Business and Consumer	These set of indicators are not listed as priority for	These indicators are listed as priority but no mention of what type	Since the Business Confidence Index is new, there is need to	Staff capacity-building is required.	These indicators are not compiled within the Jordanian	Priority	Consumer confidence: The private bank Byblos and the

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
confidence indicators	Egypt and it did not state if any kind of assistance is needed for them. Egypt currently produces the Consumer confidence indicator (compiled by the Information and Decision Support Centre of the Cabinet) and the Business Barometer index (produced by the Egyptian Centre for Economic Studies).	of assistance is needed. Only the business manager's survey, which gives a view on the confidence in the activity sectors future is realized on a quarterly basis by the NSO and its results are published at the same frequency. Other indicators are under elaboration by the NSO, whose surveys are regularly implemented, such as the domestic trade survey and the distribution channels, the quarterly investment survey etc. Otherwise, the Tunisian Institute of competitiveness and economic studies realizes regularly studies concerning competitiveness in Tunisian activity sectors comparing to other countries.	improve capacity in the computation, analysis and interpretation of this index.	Indicators are not compiled due to the lack of financial resources to perform the surveys, and the lack of the necessary tools to ensure the needed coordination between both PCBS and PMA.	statistical system due to limited financial and human skills resources to perform the surveys. Building the capacity of staff is essential to be able to produce these indicators in the near future since CBJ is very interested in producing them.		American University of Beirut compile a consumer confidence index every six month. This indicator is not considered as official though it is used by a wide range of economists. The Lebanese Central Bank is studying the possibility of starting the compilation of this index in the next two years and wishes to receive technical assistance on this subject.
Others							
Employment by activity	The Labour Force Panel survey is so longer being conducted. The methodology used	Technical assistance from an expert in the following domains and who has already tested out these	Quarterly employment by activity is not compiled (disseminated on an		Labour market staff need capacity building in data dissemination.	Main reason for not producing and disseminating data on employment by economic activity in	Lebanon doesn't have a labour force survey conducted on regular basis to provide users with updated figures.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	in conducting this survey needs to be restudied (from the sampling stage to the results stage). Therefore, technical assistance is needed in the sampling of the labour market indicators and the analysis of panel surveys studies as well as seasonal adjustment methods in labour market indicators and the income, expenditure and consumption household survey.	methodologies are needed: Help persons in charge of the employment survey in the NSO to pass on the new concepts shown in October 2013 (ILO), that made the distinction between the work notion and the employment notion. They would like also to develop employment evaluation at the delegations level, a small domain valuation that requires very specific statistical techniques and modeling data series.	annual basis only). Additional resources and budget needed. The main reason for not producing and disseminating data on employment by economic activity in each quarter is data quality. The sample size used for the labour force sample survey which provides source data is too small and does not enable the compilation of detailed data by activity. Additional resources are needed to enable its regular compilation. There is no need for training.			each quarter is data quality. The sample size used for the labour force sample survey which provides source data is too small and does not enable the compilation of detailed data by activity.	This is a major constraint.
Household debt	Not produced. Household debt is partially available in terms of debt being paid during the survey year, in the income questionnaire.	The survey concerning household revenue and expenditure is undertaken every five years. Current periodicity is yearly whereas the recommended periodicity is quarterly	Not produced due to data gaps and insufficient staff. This indicator is not a priority.	PCBS has limited capacity to produce household debt statistics on a quarterly basis due to the following constraints: • Data sources have limited capacity to provide the required information about household accounts; • Limited information is available to compile the indicators on a quarterly basis	DOS has limited capacity to produce some other household indicators such as household debt according to relevant international standards.	Main reasons for not producing are data gaps and insufficient staff. However, it is not a priority STS. However, some components probably can be compiled from existing administrative sources.	There is a lack of human and financial resources to conduct surveys needed to compile these indicators.

Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
				since the Palestinian Expenditure and Consumption Survey (PECS) is planned to be conducted every 3 years; • Data on net property income is available from BoP statistics only on an annual basis, and household saving estimates are not available.			
Residential property price index	Not produced by NSS in Egypt. Technical assistance is needed.	The residential property price index is under study between the NSO and the Ministry of Equipment.		PCBS does not have the capacity to produce this indicator due to lack of data sources needed to build a representative sample and to derive the weights. Building the capacity of current and new staff is essential to be able to produce the indicator. Staff members should participate in technical missions and consider other country best practices and experiences on this issue, while keeping in mind the difficulties of compilation and the fact that few countries currently produce it.		Difficulties in obtaining some services data directly from its main sources. Delays from some primary sources in providing data on time. Enhance data accessibility and timeliness of publications for all datasets by improving statistical databases in all institutions and introducing user-friendly time-series formats for data dissemination. The NCSI in cooperation with other institutions should expand data collections to address existing gaps.	There are no plans in CAS to publish this indicator

ANNEX 7. DATA TEMPLATE FOR SHORT-TERM STATISTICS

Short-term statistic			Target Periodicity*	Included in IMF SDDS/GDDS
Set	**Indicator description**	**Detail**		
1.National accounts	1.1 QNA: Flash GDP estimate		Q	SDDS GDDS
	1.2 QNA: GDP full release	1.2.1 By expenditure	Q	
		1.2.2 By production	Q	
		1.2.3 By income	Q	
2.Production and turnover	2.1 Production index for industry, by major division (mining, manufacturing, electricity, water, etc)		Q, M	SDDS GDDS
	2.2 Production index for construction		Q, M	GDDS
	2.3 Turnover index for retail trade by major division		Q, M	
	2.4 Turnover index for industry by major division		Q, M	
3.Price indicators	3.1 Consumer price index		M	SDDS GDDS
	3.2 Producer price index		M	SDDS GDDS
	3.3 Import price index		M	
	3.4 Export price index		M	
4.Labour market indicators	4.1 Unemployment		Q	SDDS GDDS
	4.2 Unemployment rate		Q	
	4.3 Employment total by economic activity		Q	SDDS GDDS
5.External sector indicators	5.1 Exports and imports (of goods and services)		Q	SDDS GDDS
	5.2 International investment position (IIP), specify balances and components		Q	SDDS GDDS
	5.3 Official reserve assets		M	SDDS GDDS
	5.4 External debt (by sector, maturity and foreign currency)		Q	SDDS GDDs
6.Financial sector indicators	6.1 Central bank net foreign assets		M	
	6.2 Central bank domestic lending		M	
	6.3 Central bank reserve money		M	

Short-term statistic			Target Periodicity*	Included in IMF SDDS/GDDS
Set	**Indicator description**	**Detail**		
	6.4 Depository corporations net foreign assets		M	
	6.5 Depository corporations domestic lending			
	6.6 Depository corporations broad money liabilities		M	
7. General government sector indicators	7.1 Revenue		Q	SDDS GDDS
	7.2 Expense		Q	
	7.3 Net operating balance	(= Revenue – Expense)	Q	
	7.4 Net acquisition of non-financial assets		Q	
	7.5 Expenditure		Q	
	7.6 Net lending/net borrowing	(= Revenue - Expenditure)	Q	
	7.7 Gross debt		Q	SDDS GDDS
10. Financial market indicators	10.1 Interest rates, as relevant short and long term money and bond market rates		D	SDDS GDDS
	10.2 Exchange rates, as relevant spot and forward markets		D	SDDS GDDS
	10.3 Nominal and real effective exchange rates		M (nominal) Q	
	10.4 Stock market indicators		D	SDDS GDDS
11. Real estate market indicators	11.1 Residential property price index		Q	SDDS
12. Economic sentiment	12.1 Consumer confidence		M	SDDS
	12.2 Business confidence		M	
	12.3 Composite business cycle indicators	12.3.1 Leading indicator	M	
		12.3.2 Coincident indicator	M	
		12.3.3 Lagging indicator	M	

Source: *Report of the International Seminar on Timeliness, Methodology and Comparability of Rapid Estimates of Economic Trends* 27-29 May 2009, Ottawa, Canada, para. 5 – available at http://unstats.un.org/unsd/nationalaccount/workshops/2009/ottawa/AC188-5.PDF.

* D: Daily: M: Monthly; Q: Quarterly.

ANNEX 8. RECOMMENDED FREQUENCY OF SHORT-TERM STATISTICS V. ACTUAL FREQUENCY IN PILOT COUNTRIES

Data set	Indicator	Recommended frequency of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	Q	NA	NA	NA	NA	NA	NA	NA
	GDP by income	Q	NA	NA	NA	NA	NA	N A	NA
	GDP by production	Q	Q	Q	Q	Q	Q	Q	Q
	GDP by expenditure	Q	Q	NA	Q	Q	NA	NA	Q
	Quarterly Institutional sector accounts	Q	NI	NA	NA	NI	NA	NA	NA
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	M	M	M	NA	Q	M	NA	NA
	Production index for construction	M	NA	NA	NA	NA	NA	NA	NA
	Turnover index for retail trade by major division	M	NA	NA	NA	NA	NA	NA	NA
	Turnover index for industry by major division	M	M	M	NA	NA	NA	NA	NA
	Turnover index for other services by major division (excluding financial services and non-commercial services)	M	NA	NA	NA	NA	NA	NA	NA
	New orders index for industry by major ISIC division (for those that work on order)	M	NA	NA	NA	NI	NA	NA	NA
	New orders index for construction (building permits or housing starts)	M	NA	NA	M	NI	NA	Q	NA
	Commodity production: Agricultural products	M	A	A	NA	NI	NI	NA	NA
	Commodity production: Minerals	M	A	A	NA	NI	NI	M	NA
	Commodity production: New car registrations	M	A	A	M	NI	NA	M	NI
	Commodity production: New commercial vehicle registrations	M	A	A	M	NI	NA	NA	NA

Data set	Indicator	Recommended frequency of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Commodity production: Tourist arrivals	M	Monthly and biannually	NI	M	NI	yes	M	NI
3. Prices	CPI	M	bimonthly	M	M	M	M	M	Q
	PPI	M	M	M	M	M	M	Q	NA
	Import price index	M	A	M	NA	NA	M	NA	NA
	Export Price Index	M	A	M	NA	NA	M	NA	NA
4. Labour market indicators	Unemployment	Q	Q	Q	Q	Q	Q	NA	Ad hoc
	Unemployment rate	Q	Q	Q	Q	Q	Q	NA	Ad hoc
	Employment total and by economic activity	Q	Q	Q	NA	Q	Q	NA	Ad hoc
	Hourly wage rate	Q	A	A	NA	Q	NA	NA	NA
	Hours of work	Q	A	A	NA	Q	Q	NA	Ad hoc
5. External sector accounts	Exports and imports (of goods and services)	M	M goods	M	M	M	M	Goods M Services Q	M
	International investment position (IIP), specify balances and components	Q	Q	NI	NA	Q	Q	NA	NI
	Official reserve assets	M	M	NI	M	M	M	NA	NA
	External debt (by sector, maturity and foreign currency)	Q	Q	NI	NA	M	Q	Q	NA
	Central Bank net foreign assets	M	M	NI	M	M	M	M	M
6. Financial sector indicators	Central Bank domestic lending	M	M	M	M	M	M	M	M
	Central Bank reserve money	M	M	M	M	M	M	M	M
	Depository corporations net foreign assets	M	M	M	M	M	M	M	M
	Depository corporations domestic lending	M	M	M	M	Q	M	M	M
	Depository corporations broad money liabilities	M	M	M	M	Q	M	M	M

Data set	Indicator	Recommended frequency of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Other financial corporations balance sheet, assets and liabilities by sector.	M	M	M	M	NI	NA	NA	M
	Financial corporate profits	Q	A	NI	Q	Q	NA	NA	NA
	Financial corporate debt	Q	A	NI	NI	Q	NA	NA	NA
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	M	NA	NI	Q	Q	M	M	NA
7. General government sector indicators	Revenue	Q	Q	M	Q	Q	A	M	M
	Expenses	Q	Q	M	NA	Q	A	NA	M
	Net operating balance (= Revenue – Expense)	Q	Q	NI	NA	Q	A	NA	M
	Net acquisition of non-financial assets	Q	NA	NA	NA	Q	NA	NA	M
	Expenditure	Q	Q	M	Q	Q	A	M	M
	Net lending/net borrowing (= Revenue - Expenditure)	Q	Q	M	Q	Q	A	M	M
	Gross debt	Q	Q	M	NA	NI	A	NA	M
8. Household sector indicators	Household disposable income	Q	2 yearly	A	NA	NA	Not disseminated but can be calculated	NA	NA
	Household saving	Q	2 yearly	A	NA	NA	NA	NA	NA
	Household debt	Q	NA	A	NA	NA	NA	NA	NA
	Other as relevant: debt service and principal payments, etc	Q	NA	A	NA	NA	NA	NA	NA
9. Non-financial corporations	Non-financial corporate profits	Q	A	A	NA	NA	NA	NA	NA
	Non-financial corporate debt	Q	A	A	NA	NA	NA	NA	NA
	Other as relevant	Q	A	A	NA	NA	NA	NA	NA

Data set	Indicator	Recommended frequency of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
sector indicators									
10. Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	M	D	M	M	Q	D	NA	M
	Exchange rates, as relevant spot and forward markets	M	D	M	D	D	D	NA	D
	Nominal and real effective exchange rate	M	NA	NA	NA	NA	NA	NA	NA
	Stock market indicators	M	NI	M	D	D	D	Q	D
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	M	NA	M	NI	NA	NI	NA	M
11. Real estate market indicators	Residential property price index	Q	NA	NA	Q	NA	Q	Q	NA
	New house sales	M	NA	NA	NA	NA	NA	NA	NA
	Existing house sales	M	NA	NA	NA	NA	NA	NA	NA
12. Economic sentiment	Consumer confidence	M	NI not NSS	NA	Q	NA	NA	NA	6 monthly
	Business confidence	M	NI not NSS	NI	Q	NA	NA	NA	Q
	Composite Business Cycle Indicators: Leading Indicator	M	NA	NA	NA	NA	NA	NA	Q not pub.
	Composite Business Cycle Indicators: Coincident Indicator	M	NA	NA	NA	NA	NA	NA	M
	Composite Business Cycle Indicators: Lagging Indicator	M	NA	NA	NA	NA	NA	NA	NA

A: annual; Q: quarterly; M: monthly; D: Daily; not pub: not published; not NSS: not compiled by agencies within the national statistical system; NA: not available; NI: Frequency not indicated.

ANNEX 9. RECOMMENDED TIMELINESS OF SHORT-TERM STATISTICS V. ACTUAL TIMELINESS IN PILOT COUNTRIES

Data Sst	Indicator	Recommended timeliness of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	1M	NA	NA	NA	NA	NA	NA	NA
	GDP by income	1Q (SDDS)	NA	NA	NA	NA	NA	N A	NA
	GDP by production	1Q (SDDS)	1Q	45D	1Q	90D	1Q	1Q	NI
	GDP by expenditure	1Q (SDDS)	1Q	NA	100D	90D	NA	NA	NI
	Quarterly Institutional sector accounts	1Q (SDDS)	1Q	NA	NA	NI	NA	NA	NA
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	6-12 W (GDDS) 6W, 1M encouraged (SDDS)	6W	45D	NA	35D	6W	NA	NA
	Production index for construction	6-12 W (GDDS) 6W, 1M encouraged (SDDS)	NA	NA	NA	NA	NA	NA	NA
	Turnover index for retail trade by major division	1M (SDDS)	NA	NA	NA	NA	NA	NA	NA
	Turnover index for industry by major division	1M (SDDS)	6W	NI	NA	NA	NA	NA	NA
	Turnover index for other services by major division (excluding financial services and non-commercial services)	1M (SDDS)	NA	NA	NA	NA	NA	NA	NA
	New orders index for industry by major ISIC division (for those that work on order)	1M (SDDS)	NA	NA	NA	NI	NA	NA	NA
	New orders index for construction (building permits or housing starts)	1M (SDDS)	NA	NA	20D	NI	NA	NI	NA
	Commodity production: Agricultural products	6-12W (GDDS) 6W, 1M encouraged (SDDS)	12W	A	NA	NI	NI	NA	NA
	Commodity production: Minerals	6-12W (GDDS) 6W, 1M encouraged (SDDS)	NI	A	NA	NI	NI	NA	NA

Data Sst	Indicator	Recommended timeliness of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Commodity production: New car registrations	6-12W (GDDS) 6W, 1M encouraged (SDDS)	12W	A	NI	NI	NA	NI	NI
	Commodity production: New commercial vehicle registrations	6-12W (GDDS) 6W, 1M encouraged (SDDS)	12W	A	NI	NI	NA	NA	NA
	Commodity production: Tourist arrivals	6-12W (GDDS) 6W, 1M encouraged (SDDS)	4W	NI	20D	NI	NS	NS	NS
3. Prices	CPI	1-2M (GDDS) 1M (SDDS)	10D	5D	10D	14D	14D	2M	NI
	PPI	1-2M (GDDS) 1M (SDDS)	1M	1M	30D	NI	1M	NI	NA
	Import price index	2-3W	10M	NI	NA	NA	NS	NA	NA
	Export Price Index	2-3W	10M	NI	NA	NA	NS	NA	NA
4. Labour market indicators	Unemployment	1Q (SDDS)	45D	45D	9M	5W	1M	NA	NA
	Unemployment rate	1Q (SDDS)	45D	45D	9M	5W	1M	NA	NA
	Employment total and by economic activity	1Q (SDDS)	45D	45D	NA	5W	1M	NA	NA
	Hourly wage rate	1Q (SDDS)	5M	1Q	NA	5W	NA	NA	NA
	Hours of work	1Q (SDDS)	5M	NI	NA	5W	1M	NA	NA
5. External sector accounts	Exports and imports (of goods and services)	8-12W (GDDS) 8W, 4-6W encouraged (SDDS)	8W goods	20D	6M	8W	8W	Goods 60D Services 90D	1M
	International investment position (IIP), specify balances and components	1Q (SDDS)	<3M	6M	NA	NI	1Q	NA	NI
	Official reserve assets	1-4W, 1W encouraged (GDDS) 1W (SDDS)	7D	7D	4-6W	NI	1W	NA	1M

Data Sst	Indicator	Recommended timeliness of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	External debt (by sector, maturity and foreign currency)	3-6M (GDDS) 1Q (SDDS)	3M	3M	NA	NI	1Q	90D	2M
	Central Bank net foreign assets	2W (SDDS)	4W	NI	NI	NI	2W	40D	1-2D
6. Financial sector indicators	Central Bank domestic lending	2W (SDDS)	2W	NI	NI	NI	2W	40D	1M
	Central Bank reserve money	1-2M (GDDS) 2W (SDDS)	2W	NI	NI	M	2W	40D	1M
	Depository corporations net foreign assets	1-3M (GDDS) 1M (SDDS)	45D	1M	NI	NI	1M	45D	1M
	Depository corporations domestic lending	1M (SDDS)	45D	1M	NI	Q	1M	45D	1M
	Depository corporations broad money liabilities	1M (SDDS)	45D	1M	NI	Q	1M	45D	1M
	Other financial corporations balance sheet, assets and liabilities by sector.	1M (SDDS)	45D	NI	NI	NI	NA	NA	NA
	Financial corporate profits	1Q	8M	NI	NI	NI	NA	NA	NA
	Financial corporate debt	1Q	8M	NI	NI	NI	NA	NA	NA
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	1Q	NA	NI	NI	NI	NI	45D	NA
7. General government sector indicators	Revenue	2Q, 1Q encouraged (SDDS)	45D	NI	1Q	NI	NI	45D	1Q
	Expenses	2Q, 1Q encouraged (SDDS)	45D	NI	NA	NI	NI	NA	1Q
	Net operating balance (= Revenue – Expense)	2Q, 1Q encouraged (SDDS)	45D	NI	NA	NI	NI	NA	1Q
	Net acquisition of non-financial assets	2Q, 1Q encouraged (SDDS)	NA	NA	NA	NI	NA	NA	NA
	Expenditure	2Q, 1Q encouraged (SDDS)	45D	NA NA	1Q	NI	NI	45D	1Q

Data Sst	Indicator	Recommended timeliness of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Net lending/net borrowing (= Revenue - Expenditure)	2Q, 1Q encouraged (SDDS)	45D	NI	1Q	NI	NI	45D	1Q
	Gross debt	4M (SDDS)	45D	NI	NA	NI	1Q	NA	1M
8. Household sector indicators	Household disposable income	1Q (SDDS)	6M	NI	NA	NA	Not disseminated but can be calculated	NA	NA
	Household saving	1Q (SDDS)	6M	NI	NA	NA	NA	NA	NA
	Household debt	1Q (SDDS)	NA	NI	NA	NA	NA	NA	NA
	Other as relevant: debt service and principal payments, etc	1Q (SDDS)	NA	NI	NA	NA	NA	NA	NA
9. Non-financial corporations sector indicators	Non-financial corporate profits	1Q (SDDS)	9-12M	NI	NA	NA	NA	NA	NA
	Non-financial corporate debt	1Q (SDDS)	9-12M	NI	NA	NA	NA	NA	NA
	Other as relevant	1Q	9-12M	NI	NA	NA	NA	NA	NA
10. Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	No timeliness recommendation is presented given that the data are widely available from private sources.	D	D	D	NI	D	NA	1M
	Exchange rates, as relevant spot and forward markets	No timeliness recommendation is presented given that the data are widely available from private sources.	D	D	D	D	D	NA	D
	Nominal and real effective exchange rate	2M	NA	NA	NA	NA	NA	NA	NA
	Stock market indicators	No timeliness recommendation is presented given that the data are widely available from private sources.	NI	D	D	D	D	D	D
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	No timeliness recommendation is presented given that the data are	NA	NI	NI	NA	NI	NA	NI

Data Sst	Indicator	Recommended timeliness of indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		widely available from private sources.							
11. Real estate market indicators	Residential property price index	1Q (SDDS Plus)	NA	NA	NI	NA	NI	NI	NA
	New house sales	1M	NA	NA	NA	NA	NA	NA	NA
	Existing house sales	1M	NA	NA	NA	NA	NA	NA	NA
12. Economic sentiment	Consumer confidence	1M (SDDS)	NI not NSS	NA	NI	NA	NA	NA	NI
	Business confidence	1M (SDDS)	NI not NSS	NI	NI	NA	NA	NA	NI
	Composite Business Cycle Indicators: Leading Indicator	1M (SDDS)	NA	NA	NA	NA	NA	NA	NI
	Composite Business Cycle Indicators: Coincident Indicator	1M (SDDS)	NA	NA	NA	NA	NA	NA	NI
	Composite Business Cycle Indicators: Lagging Indicator	1M (SDDS)	NA	NA	NA	NA	NA	NA	NA

NA: not available; NI: Timeliness not indicated.

ANNEX 10. INTERNATIONAL STATISTICAL GUIDELINES CURRENTLY USED BY PILOT COUNTRIES FOR INDICATORS CURRENTLY DISSEMINATED

([AR] INDICATES AVAILABILITY OF STANDARD IN ARABIC)

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	1. System of National Accounts 1993 European Commission et al) [AR]. 2. System of National Accounts 2008 (European Commission et al) [AR – prelim]. 3. Quarterly National Accounts Manual: Concepts, Data Sources and Compilation (IMF, 2001 and forthcoming update). 4. Handbook on Quarterly National Accounts (Eurostat, 1999, 2013).	NA	NA	NA	NA	NA	NA	NA
	GDP by income		NA	NA	NA	NA	NA	NA	NA
	GDP by production		1	1	1,3	1	1	1	2
	GDP by expenditure		1	NA	1,3	1	NA	NA	2
	Quarterly Institutional sector accounts		1	NA	NA	NI	NA	NA	NA
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	1. International Recommendations for the Index of Industrial Production, 2010 (UNSD) [AR]. 2. Industrial Statistics: Guideline and Methodology (UNIDO, 2010). 3. Country Practices for the Collection and Calculation of the Index of Industrial Production (United Nations, 2008). 4. Guidelines for Compiling the Monthly Index of Production in Construction (Eurostat, 2011). 5. International Recommendations for Distributive Trade Statistics 2008 (UNSD) [AR]. 6. Compilation Manual for an Index of Service Production (OECD 2007).	7	NI	NA	1	1	NA	NA
	Production index for construction		NA	NA	NA	NA	NA	NA	NA
	Turnover index for retail trade by major division		NA	NA	NA	NA	NA	NA	NA
	Turnover index for industry by major division		7	NI	NA	NA	NA	NA	NA
	Turnover index for other services by major division (excluding financial services and non-commercial services)		NA	NA	NA	NA	NA	NA	NA
	New orders index for industry by major ISIC division (for those that work on order)		NA	NA	NA	NI	NA	NA	NA

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	New orders index for construction (building permits or housing starts)	7. International Standard Industrial Classification, Rev. 4 (United Nations 2008) [AR]. 8. International Recommendations for Tourism Statistics (UN 2008) [AR]. 9. International Recommendations for Industrial Statistics (IRIS) (UN 2008) [AR].	NA	NA	NI	NI	NA	NI	NA
	Commodity production: Agricultural products		NI	NI	NA	NI	NI	NA	NA
	Commodity production: Minerals		NI	NI	NA	NI	NI	NI	NA
	Commodity production: New car registrations		NI	NI	NI	NI	NA	NI	NI
	Commodity production: New commercial vehicle registrations		NI	NI	NI	NI	NA	NA	NA
	Commodity production: Tourist arrivals		8	NI	NS	?	NI	NI	NI
3. Prices	CPI	1. ILO Resolution concerning CPI (17th International Conference of Labour Statisticians, 2003 (ILO et al) [AR]. 2. Consumer Price Index Manual: Theory and Practice 2004 (ILO et al) [AR]. 3. Practical Guide to Producing Consumer Price indices. A Supplementary handbook to the Consumer Price Index Manual (UNECE 2009). 4. Classification of Individual Consumption According to Purpose (COICOP) (UNSD 2008b) [AR].	NI	NI	2	2,4	2	4	2
	PPI	1. Producer Price Index Manual – 2004 (IMF et al) [AR]. 2. Handbook on Industrial Producer Price Indices (Eurostat, 2012).	5	NI	1,6	1	1	7	1

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		3. Methodological Guide for Developing Producer Price Indices for Services (OECD & Eurostat 2014). 4. European Price Statistics – An Overview (Eurostat, 2008). 5. International Standard Industrial Classification, Rev. 4 (United Nations 2008) [AR]. 6. System of National Accounts 1993 European Commission et al) [AR]. 7. International Standard Industrial Classification, Rev. 3.1 (United Nations 1993).							
	Import price index	1. Export and Import Price Index Manual: Theory and Practice, 2009 (IMF).	NI	NI	NI	NA	None used	NA	NI
	Export Price Index		NI	NI	NI	NA	None used	NA	NI
4. Labour market indicators	Unemployment	1. ICLS Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, 1982 [AR]. 2. Survey of economically active population, employment and underemployment: An ILO manual on concepts and methods, ILO 1990. 3. Resolution concerning the measurement of underemployment and inadequate employment situations (16th ICLS, 1998). 4. Resolution concerning statistics of employment in the informal sector (15th ICLS, 1993).	6,7	NI	8	6,7	9	NA	1
	Unemployment rate		6,7	NI	8	6,7	9	NA	1
	Employment total and by economic activity		67	NI	NA	6,7	9	NA	1
	Hourly wage rate		7	NI	NA	NI	NA	NA	NA
	Hours of work		NI	NI	NA	NI	NI	NA	NI

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		5. ILO Guidelines concerning a statistical definition of informal employment (17th ICLS, 2003. 6. International Standard Classification of Occupations, ISCO-88 (ILO 1988). 7. International Standard Industrial Classification, Rev. 4 (United Nations 2008) [AR]. 8. Surveys of Economically Active Population, Employment, Unemployment and Underemployment: An ILO Manual on Concepts and Methods (ILO 1990). 9. Current International Recommendations on Labour Statistics (ILO 1985). 10. Resolution concerning statistics of work, employment and underemployment (19th ICLS, 2013).							
5. External sector accounts	Exports and imports (of goods and services)	1. International Merchandise Trade Statistics: Concepts and Definitions, 2010 (UNSD) [AR]. 2. International Merchandise Trade Statistics: Compilers Manual, 2012 (UNSD). 3. Manual on Statistics of International Trade in Services, 2010 (UNSD) [AR]. 4. International Investment Position, 2002 (IMF). 5. Quarterly International Investment Position Statistics: Data Sources and Compilation Techniques, 2011 (IMF).	NI	7,6	7	7	1	7	2
	International investment position (IIP), specify balances and components		7	7,6	NA	7,4	7	NA	6
	Official reserve assets		5	NI	NS	7,15	15	NA	NA
	External debt (by sector, maturity and foreign currency)		12,7	NI	NA	NI	12,14	7	NA
	Central Bank net foreign assets		14	NI	14	14	14	16	NA

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		6. Balance of Payments and International Investment Position Manual – Sixth Edition, 2008 (BPM6) (IMF) [AR]. 7. Balance of Payments Manual – 5th edition (BPM5) (IMF 2007) [AR]. 8. Balance of Payments and International Investment Position Compilation Guide, 2012 (IMF) [AR]. 9. Manual on Statistics of International Trade in Services, 2010 (UNSD) [AR]. 10. International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template (Pre-publication Draft, January 2012) – IMF [AR]. 11. Balance of Payments Manual – 5th edition (BPM5) (IMF 2007) [AR]. 12. External Debt Statistics: Guide for Compilers and Users 2003 (IMF) [AR]. 13. Balance of Payments Manual – 5th edition (BPM5) (IMF 2007) [AR]. 14. Monetary and Financial Statistics Manual 2000 (IMF) [AR]. 15. Data Template on International Reserves and Foreign Currency Liquidity (2001 IMF). 16. International Financial Reporting Standards (IFRS).							
6. Financial sector indicators	Central Bank domestic lending	1. Monetary and Financial Statistics Manual 2000 (IMF).	1,4	9	1	1	1	16	NI
	Central Bank reserve money		1,4	9	1	1	1	16	

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Depository corporations net foreign assets	2. Monetary and Financial Statistics: Compilation Guide, 2008 (IMF). 3. Financial Soundness Indicators: Compilation Guide, 2006 (IMF) [AR]. 4. Balance of Payments Manual – 5th edition (BPM5) (IMF 2007) [AR]. 5. Government Finance Statistics Manual 2001, (IMF) [AR]. 6. Public Sector Debt Statistics: Guide for Compilers and Users, 2011, (TFFS) [AR]. 7. Quarterly Government Finance Statistics Guide for Compilers and Users (IMF, 2013). 8. Government Finance Statistics: Compilation Guide for Developing Countries (IMF, 2011). 9. System of National Accounts 1993 European Commission et al) [AR].	1,4	9	1	1	1	1	
	Depository corporations domestic lending		1,4	9	1	1	1	1	
	Depository corporations broad money liabilities		1,4	9	1	1	1	1	
	Other financial corporations balance sheet, assets and liabilities by sector.		1,4	9	1	1	NA	NA	
	Financial corporate profits		1,4	9	1	1	NA	NA	
	Financial corporate debt		1,4	9	1	1	NA	NA	
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.		NA	9	1	1	1	1	
7. General government sector indicarors	Revenue		1,8	9	5	5	5	NI	NI
	Expenses		1,8	9	NA	5	5	NA	NI
	Net operating balance (= Revenue – Expense)		1,8	9	NA	5	5	NA	NI
	Net acquisition of non-financial assets		NA	NA	NA	5	NA	NA	NI
	Expenditure		1,8	NA	8	5	5	NI	NI
	Net lending/net borrowing (= Revenue - Expenditure)		1,8	9	8	5	5	NI	NI
	Gross debt		1,8	9	NA	5	5	NA	NI
	Household disposable income		1,2	4	NA	NA	NI	NA	NA

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
8. Household sector indicators	Household saving	1. Resolution on Household Income and Expenditure Statistics (17th ICLS, 2003) [AR]. 2. Classification of Individual Consumption according to Purpose (COICOP) [AR]. 3. Canberra Group Handbook on Household Income Statistics, 2nd edition (Canberra Group Handbook) (UNECE, 2011). 4. System of National Accounts 1993 European Commission et al) [AR].	1,2	4	NA	NA	NA	NA	NA
	Household debt		NA	4	NA	NA	NA	NA	NA
	Other as relevant: debt service and principal payments, etc		NI	4	NA	NA	NA	NA	NA
9. Non-financial corporations sector indicators	Non-financial corporate profits	1. System of National Accounts 1993 European Commission et al) [AR]. 2. System of National Accounts 2008 (European Commission et al) [AR – prelim]. 3. Handbook on Securities Statistics (BIS, ECB and IMF, 2015).	NI	1	NA	NA	NA	NA	NA
	Non-financial corporate debt		NI	1	NA	NA	NA	NA	NA
	Other as relevant		NI	1	NA	NA	NA	NA	NA
10. Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	1. The Special Data Dissemination Standard: Guide for Subscribers and Users (IMF, 2013) [AR]. 2. International Financial Statistics (IMF) [AR]. 3. Balance of Payments Manual – 5th edition (BPM5) (IMF) [AR]. 4. External Debt Statistics: Guide for Compilers and Users 2003 (IMF) [AR]. 5. Monetary and Financial Statistics Manual 2000 (IMF).	3	1,2	NI	NI	5	NA	NA
	Exchange rates, as relevant spot and forward markets		3	1,2	NI	NI	NI	NA	NI
	Nominal and real effective exchange rate		NA	NA	NA	NA	NA	NA	NA
	Stock market indicators		NI	NI	NI	NI	NI	NI	NA

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.		NA	NI	NI	NA	NI	NA	NA
11. Real estate market indicators	Residential property price index	1. Financial Soundness Indicators: Compilation Guide, 2006 (IMF) [AR]. 2. Handbook on Residential Property Prices Indices (Eurostat et al., 2013). 3. Detailed Technical Manual on Owner-Occupied Housing for Harmonized Index of Consumer Prices (Eurostat, 2012).	NA	NA	1	NA	NI	NI	NA
	New house sales		NA	NA	NA	NA	NA	NA	NA
	Existing house sales		NA	NA	NA	NA	NA	NA	NA
12. Economic sentiment	Consumer confidence	1. Business Tendency Surveys: A Handbook, 2003 (OECD). 2. Handbook on Constructing Composite Indicators: Methodology and User Guide, 2008 (OECD-JRC). 3. A User Manual to the Joint Harmonized EU Programme of Business and Consumer Surveys. 2014, updated March 2014 (European Commission). 4. Handbook on Economic Tendency Surveys (United Nations 2015) [Draft]. 5. 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 which are listed below.	NS	NA	10, 11	NA	NA	NA	NI
	Business confidence		NI	NI	NI	NA	NA	NA	NI
	Composite Business Cycle Indicators: Leading Indicator		NA	NA	NA	NA	NA	NA	NI
	Composite Business Cycle Indicators: Coincident Indicator		NA	NA	NA	NA	NA	NA	NI
	Composite Business Cycle Indicators: Lagging Indicator		NA	NA	NA	NA	NA	NA	NI

Data set	Indicator	Relevant international statistical recommendation/guideline	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		6. OECD System of Composite Leading Indicators (OECD, 2012). 7. Handbook on Constructing Composite Indicators – Methodology and User Guide (OECD, EU, 2008). 8. Handbook on Cyclical Composite Indicators (Eurostat, United Nations, forthcoming). 9. 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. 10. University of Michigan. 11. US Conference Board.							

In addition to these statistical domain specific international standards and guidelines there are a number of other useful handbooks, etc., relevant for the collection. Compilation and dissemination of STSs. These comprise: Methodology of Short-Term Business Statistics – Interpretation and Guidelines (Eurostat, 2006); *Handbook on Design and Implementation of Business Surveys* (Eurostat, 1997) and its updated version, the *Handbook on Methodology of Modern Business Statistics* (Eurostat 2014).

NA: Not applicable; NI: Use of international guidelines not indicated.

ANNEX 11. PROVISION OF STSS METADATA BY PILOT COUNTRIES

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
1. National accounts	Flash GDP estimate	NA	NA	NA	NA	NA	NA	NA
	GDP by income	NA	NA	NA	NA	NA	NA	NA
	GDP by production	Metadata are available in the bulletins and on the CAPMAS website	Metadata are published in different publications in Arabic and French. On the web site, an English version is added with the others.	All the metadata relating to the compilation methodology used for both STSs is contained in a 90-page separate document and available in English and in Arabic. This document was posted on MDPS website in September 2014. Information on methodology is also provided in the National Accounts Bulletins and in the Annual Statistical Abstracts.	The NA publications for annual and quarterly estimates are published in both Arabic and English, and contain methodological notes for users. Those notes provide information on data sources, transactions, compilation techniques and the deflators adopted.	Information on concepts, definitions, data sources and statistical techniques is disseminated to the public in Arabic language and available online. Methodological notes are provided in the appendices of dedicated national accounts hard copy publications. Details Metadata for NA published on the IMF DSBB. A methodology and statistical concepts of NA are published in the CBJ website and Monthly statistical Bulletin.	Short methodology for annual GDP estimates in Arabic and English available in the NA publication.	Data sources and compilation methods for National account in Lebanon are available on CAS website.
	GDP by expenditure		NA			NA	NA	Data sources and compilation

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
								methods for National account in Lebanon are available on CAS website.
	Quarterly Institutional sector accounts		NA	NA	NI	NA	NA	NA
2. Production and turnover	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	A brief description of the methodology is published in each issue of the quarterly publication of the Ministry of Planning's real sector indices.	The calculation methodology is not published.	The Document "Metadata to document methodology" is accessible at: http://www.qix.gov.qa/portal/page/portal/QIXPOC/Documents/QIX%20Knowledge%20Base/Publication/Metadata	Metadata for the Industrial production index is available. Detailed metadata pertaining to the methodology, definitions and quality issues are published in the annual reports in both Arabic and English.	Metadata for Production Index is available Mainly in English. Documents in Arabic, containing comprehensive information on IPI sources and methods, are available upon request. - Tables are presented in both summarized and detail format through tables disseminated on the Dos website and in the statistical year book. Detailed Metadata for IIP published on the IMF DSBB.	NA	NA

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
						A methodology and statistical concepts of IPI are published in the CBJ website and Monthly statistical Bulletin.		
	Production index for construction	NA	NA	NA	NA	NA	NA	NA
	Turnover index for retail trade by major division	NA	NA	NA	NA	NA	NA	NA
	Turnover index for industry by major division	See above	NI	NA	NA	NA	NA	NA
	Turnover index for other services by major division (excluding financial services and non-commercial services)	NA	NA	NA	NA	NA	NA	NA
	New orders index for industry by major ISIC division (for those that work on order)	NA	NA	NA	NI	NA	NA	NA
	New orders index for construction (building permits or housing starts)	NA	NA	NI	NI	NA	Metadata available (English/Arabic)	NA
	Commodity production: Agricultural products	The metadata is available in the bulletin and on the website of CAPMAS.	NI	NA	NI	NI	NA	NA
	Commodity production: Minerals		NI	NA	NI	NI	NI	NA
	Commodity production: New car registrations		NI	Metadata is not yet included in	NI	NA		NA

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Commodity production: New commercial vehicle registrations		NI	the document on metadata.	NI	NA	Metadata available (English/Arabic)	NA
	Commodity production: Tourist arrivals		NI		NI	NI		NA
3. Prices	CPI	The metadata is available in both Arabic and English in the monthly bulletin and on CAPMAS website.	The methodology and the metadata are not published.	Metadata on the compilation of the CPI and PPI (in Arabic and in English) are given in the document "Metadata to document methodology" posted on MDPS website.	Metadata available on the website of PCBS and a guide to the methodology and concepts used is available in the annual report. The website is in both Arabic and English.	Information on concepts, definitions, data sources and statistical techniques is disseminated to the public. All deviations from internationally accepted standards are documented. Tables are presented in both summarized and details in DOS publications. A comprehensive consumer prices index sources and methods document in Arabic is available upon request. Details Metadata for both published in the IMF DSBB.	Metadata available (English/Arabic)	Consumer Price Index Metadata available on CAS website.
	PPI						Detailed methodological manual is published and available on the NCSI website in Arabic and in English.	NA

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
						A methodology and statistical concepts for CPI & PPI are published in the CBJ website and Monthly statistical Bulletin.		
	Import price index	The metadata is available in the bulletin in Arabic		NA	NA	No metadata available	NA	NA
	Export Price Index			NA	NA		NA	NA
4. Labour market indicators	Unemployment	A brief description of the survey methodology and estimation procedures is published in the bulletin and on CAPMAS website	The adopted methodology is the ILO one and the meta data are not published.	Metadata is available and is given in the Labour Force survey report.	Metadata are available on the website of PCBS and a detailed description of the methodology and concepts used and quality issues is available in the annual report and on the website in both Arabic and English.	Detailed documentation on concepts, scope, classifications, data sources and statistical techniques are published in the quarterly bulletin Employment and Unemployment Survey.	NA	Brief metadata available on CAs website.
	Unemployment rate						NA	Brief metadata available on CAs website.
	Employment total and by economic activity			NA			NA	Brief metadata available on CAs website.
	Hourly wage rate	A brief description of the survey's methodology is published in the annual bulletin and on the CAPMAS website.	NI	NA		NA	NA	NA
	Hours of work		NI	NA		NI	NA	NA
5. External sector accounts	Exports and imports (of goods and services)	A brief description of the methodology is published in each	The metadata are published on the central bank home page, in Arabic,	QCB quarterly and annual report includes descriptive and	Metadata is available on PCBS website. Concepts and	Information on methodology and sources and methods for	Goods metadata published in the quarterly bulletins and	BoP methodology is published in BDL website,

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		issue of the monthly publication in both Arabic and English and in Arabic in the annual Bulletin.	French and English versions.	analytical comments on the economic and financial situation of Qatar.	definitions along with the applied methodology and classifications used and quality issues are available in the annual report and on the website in both Arabic and English.	compiling foreign trade statistics are included in the hard copy annual publication *External Trade Statistics*, and in Jordan's Trade and Investment Information System (JTIIS) metadata repository (http://jotiis.dos.gov.jo:7001/JoTIIS/Main_en.jsp).	annual reports in both Arabic and English. While Services data is published in the annual report as part of the Balance of payments.	also metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	International investment position (IIP), specify balances and components	Dissemination of documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques. Documentation on methodology and information on sources used in preparation of the IIP can be provided upon request.		NA	Metadata is available on the IMF's website within the SDDS in English only. Meanwhile, PCBS publishes on its website a guide to a methodology and concepts used in the compilation of the foreign investment survey and BOP annex survey. However, the guide to the methodology and concepts used ni the compilation of the IIP is still	Brief details of concepts, sources and methodology of Jordan's IIP are published in the CBJ website and Monthly Statistical Bulletin. Also, a description of Jordan's balance of payments methodology and data sources are published in the IMF's Balance of Payments Statistical Yearbook (BoPSY). These publications also identify some of the deviations	NA	NA

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
					under construction.	from internationally accepted BoPSY standards. SDDS metadata posted on the IMF's DSBB.		
	Official reserve assets	Also, occasional brief explanatory notes and definitions are included in the CBE's Monthly Statistical Bulletin.		Details on sources and methods are given in the quarterly and annual reports.	The summary methodology of official reserves including the concepts, classifications, data sources, sectors and instruments are available in the Monthly Statistical Bulletin issued by PMA.	The summary methodology of official reserves, including the concepts, classifications, data sources, sectors, instruments, and net positions, are available in the Monthly Statistical Bulletin and CBJ website. SDDS metadata posted on the IMF's DSBB.	NA	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	External debt (by sector, maturity and foreign currency)			NA	No metadata has been prepared on external debt statistics.	Notes on the definition and concept for data compilation are published in *General Government Finance Bulletin* of MOF. Detailed technical description on concepts, sources	NI	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
						and methods are sufficient to allow user to understand the basic framework of statistical data. The definitions of the main aggregates are available in *General Government Financial Bulletin* of MOF and CBJ's web site. Also details SDDS metadata posted on the IMF's DSBB.		
6. Financial sector indicators	Central Bank net foreign assets	Brief explanatory notes, including definitions and terminology, are published regularly in the CBE's Monthly Statistical Bulletin, Quarterly Economic Review, and the *Annual* Report. These publications are available (in English and Arabic) free of	NI	Details on methodology are provided in QCB monthly report.	Metadata is available for the monthly and quarterly data of the central bank and the depositary corporations; metadata for the financial corporations' indicators is still under development since they are newly produced.	The summary methodology for the analytical accounts of the central bank, including the concepts, classifications, data sources, sectors, instruments, *monetary* and credit aggregates, and net positions, are available in the *Monthly Statistical Bulletin (MSB)* as well as	Information available in general ledger + Treasury system in English	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Central Bank domestic lending		Metadata are published on the CBT home page in three languages (French, Arabic and English).					Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Central Bank reserve money							Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Depository corporations net foreign assets	charge on the CBE website.				The CBJ's *Monthly Statistical Bulletin (MSB)* contains also methodological pages, in which information on the structure of the financial system and its recent developments as well as notes on data and changes to data coverage are provided SDDS framework posted on the IMF's DSBB. These metadata pages are scrutinized and updated on a regular basis.		Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Depository corporations domestic lending						Metadata available on CBO website and General Data Dissemination System (GDDS) page on the IMF's DSBB website.	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Depository corporations broad money liabilities							Metadata published on IMF's DSBB as Lebanon is a participant in the e-Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Other financial corporations balance sheet, assets and liabilities by sector.	The metadata are available in the bulletin and on the CAPMAS website				NA	NA	NA
	Financial corporate profits					NA	NA	NA
	Financial corporate debt					NA	NA	NA
	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	NA				See above	See above	NA

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
7. General government sector indicators	Revenue	The Ministry of Finance (MOF) has not published any documentation on the methodology and sources used in preparing Egypt's fiscal sector statistics. Users may refer to the IMF's 2001 Government Financial statistics Manual for information on the compilation methodology used by the MOF with regard to definitions, sources, and methodology.	Metadata and the calculation methodologies are not published.	Metadata is not yet available.	Metadata not available.	Detailed documentation of concepts, scope, classifications, basis of recording, data sources, and statistical techniques exist on MOF's General Government Finance Bulletin. Information is also a available in IMF's Data Standards Bulletin Board (DSBB*).* Detailed technical description on concepts, sources and methods are sufficient to allow user to understand the basic framework of statistical data. The definitions of the main aggregates are available in *General Government Financial Bulletin* of MOF and CBJ's *Monthly Statistics Bulletin*.	Financial Law is available in Arabic and metadata in English. Circulars and regulations related to the budgeting and planning process are regularly issued and published in the Government Gazette.	A standardized methodology is needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Expenses			NA			NA	A standardized methodology needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Net operating balance (= Revenue-Expense)			NA			NA	A standardized methodology is needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
								participant in the e-GDDS.
	Net acquisition of non-financial assets		NA	NA		NA	NA	NA
	Expenditure		NA	See above		See above	See above	A standardized methodology is needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Net lending/net borrowing (= Revenue-Expenditure)		Metadata and the calculation methodologies are not published.					A standardized methodology is needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Gross debt			NA			NA	A standardized methodology is needed to keep compilation consistent; Metadata published on IMF's DSBB as Lebanon is a

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
								participant in the e-GDDS.
8. Household sector indicators	Household disposable income	There is a complete detailed methodology issued as one of the final results publications containing the sample design and selection, survey instruments & tools, definitions & concepts and implementation stages.	Publications in paper are edited. On the home page, the meta data are in three languages, in Arabic, in French and in English.	NA	NA	NI	NA	NA
	Household saving			NA	NA	NA	NA	NA
	Household debt			NA	NA	NA	NA	NA
	Other as relevant: debt service and principal payments, etc			NA	NA	NA	NA	NA
9. Non-financial corporations sector indicators	Non-financial corporate profits	Metadata are available in the bulletins and on CAPMAS website.	The methodology, concepts and the definitions are on the national accounting volume and on the NSI home page.	NA	NA	NA	NA	NA
	Non-financial corporate debt			NA	NA	NA	NA	NA
	Other as relevant			NA	NA	NA	NA	NA
10. Financial market indicators	Interest rates, as relevant short and long term money and bond market rates	Brief explanatory notes, including definitions and terminology, are published regularly in the CBE's *Monthly Statistical Bulletin*, *Quarterly Economic Review*, and the *Annual Report*.	Metadata are published on the central bank home page in French, Arabic, and English	Brief methodological notes on definitions and concepts used to compile interest rates are included in the QCB Monthly Monetary Bulletin and Quarterly Statistical Bulletin. No other	NI	The summary methodology for, interest rates, and net positions, are available in the *Monthly Statistical Bulletin* as well as SDDS framework posted on the IMF's DSBB. These metadata pages are	NA	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
		These publications are available (in both English and Arabic) free of charge on the CBE's website. Sources are identified at dissemination.		methodological document is available to the general public. More detailed information on methodology is available from the contact person. Detailed instructions for completing the reports of commercial banks are available on the QCB website.		scrutinized and updated on a regular basis. The CBJ's *Monthly Statistical Bulletin* contains also methodological pages. The CBJ's *Monthly Statistical Bulletin (MSB)* contains also methodological pages.		
	Exchange rates, as relevant spot and forward markets			A document describing the exchange rate policy and other details related to the exchange rate titled Exchange Rate Policy – A Brief Chronology is posted on the QCB website.	Methodological documents on the compilation of exchange rates are available on the PMA's website.		NA	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.
	Nominal and real effective exchange rate	NA	NA	NA	NA	NA	NA	NA
	Stock market indicators	NI	See above	Metadata is available in the documentation on the brief notes on QSE trading mechanism.	Concepts and documentations are disseminated on the PEX website: http://www.PEX.ps	Concepts and documentation are disseminated on the ASE website http://www.ase.com.jo/.	Available in Arabic and English in the MSM web.	Metadata published on IMF's DSBB as Lebanon is a participant in the e-GDDS.

Data set	Indicator	Egypt	Tunisia	Qatar	Palestine	Jordan	Oman	Lebanon
	Others as relevant: spreads between lending and deposit rates, highest-lowest interbank rate; etc.	NA		NI	NA	not sure	NA	NA
11. Real estate market indicators	Residential property price index	NA	NA	A brief note on the compilation methodology is provided methodology is QCB Financial Stability Review 3rd Issue, 2011, Page 88.	NA	NI	Data published in the monthly bulletins and annual reports in both Arabic and English.	NA
	New house sales	NA	NA	NA	NA	NA	NA	NA
	Existing house sales	NA	NA	NA	NA	NA	NA	NA
12. Economic sentiment	Consumer confidence	NI	NA	Short notes on methodology are provided in the Press releases accompanying the index.	NA	NA	NA	Metadata available on Byblos Bank website.
	Business confidence	NI	NI		NA	NA	NA	NA
	Composite Business Cycle Indicators: Leading Indicator	NA	NA	NA	NA	NA	NA	NA
	Composite Business Cycle Indicators: Coincident Indicator	NA	NA	NA	NA	NA	NA	NA
	Composite Business Cycle Indicators: Lagging Indicator	NA	NA	NA	NA	NA	NA	NA

NA: Not applicable; NI: Information on provision of metadata not indicated.

ANNEX 12. DEFINITION OF SHORT-TERM STATISTICS OUTLINED IN ESCWA QUESTIONNAIRE

This annex outlines the definition of non-priority short-term statistics derived from the UNSD publication, *Data Template and Metadata for Short-term Statistics* [UNSD 2015c]. Definitions for the priority indicators are provided in section M above.

Indicator	**Definition** [Sources: UNSD 2015c, ESCWA 2013]
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 presents 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 provide 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 (e.g. 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.
New orders index for construction (building permits)	This index provides a measure of the value of orders received by the unit classified to the construction industry during the reference period. The indices for building permits 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). 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.
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. 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.
- *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.
- *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), and road tractors and semi-trailer combinations (Subclass 49111 of CPC Ver.2). Trailers without motive power and farm tractors are excluded.

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
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.
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. 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.
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).
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.

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
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; (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.

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
	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.
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.
International investment position (IIP), specify balances and components	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.
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). 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 repo for cash collateral Financial derivatives Other claims.
External debt (by sector, maturity and foreign 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

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
	economy. Debt should be valued on the reference date at nominal value, and, for traded debt securities, at market value as well. Gross external debt can be disaggregated by sector, maturity or foreign currency.
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.
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.
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.
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. The depository corporations subsector includes the central bank and other depository corporations.
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.
Depository corporations broad money liabilities	Broad money is the sum of all financial instruments held by money holding sectors that are (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.
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.
Financial corporate 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 corporate 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.
Financial corporate debt	Financial corporate 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.
Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios,	A loan is nonperforming 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 nonperforming loan is to be interpreted flexibly, taking into account national conventions on when a loan is deemed to be nonperforming. A

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
other financial stability indicators, etc.	capital adequacy ratio is an analytical construct in which regulatory capital is the numerator and risk-weighted assets are the denominator.
General government sector: 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.
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.
Net operating balance (= Revenue – Expense)	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.
Net acquisition of non-financial assets	Net acquisition of non-financial assets is defined as the acquisition minus the disposal of non-financial assets. Nonfinancial 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, nonfinancial assets have no counterpart liability—that is, the owner of the nonfinancial asset does not have a claim on another institutional unit.
Expenditure	Expenditure is the sum of expense and the net investment in nonfinancial 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.
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 may therefore 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 nonfinancial assets.
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.
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 goods or services without having to reduce its financial or non-financial assets or by increasing its liabilities.
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 the main domestic source of funds to finance capital investment, which is a major impetus for long-term economic growth.

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
Other 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 nonpayment 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.
Non-financial corporate 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 corporate profits refer to the aggregate profits of all corporations in the non-financial corporations sector. The nonfinancial 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.
Non-financial corporate debt	Non-financial corporate 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.
Other 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 nonfinancial corporations' net foreign exchange exposure for onbalance-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 nonfinancial 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.
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.
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

Indicator	Definition [Sources: UNSD 2015c, ESCWA 2013]
	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 labelled 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.
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.
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 endof-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. Stock market capitalization (also known as market value) refers to the market value of the shares outstanding of companies which are listed on the stock market, expressed in the national currency.
Others as relevant: spreads between lending and deposit rates, highest lowest interbank rate; etc.	Spreads between lending and deposit (SLDR) rates 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.
New house sales	New house sales record the sales of newly constructed residences in the country during a particular period.
Existing house sales	Existing house sales data measure the sales of existing residences for the nation during a particular period.

ANNEX 13. POLICY RELEVANCE OF SHORT-TERM STATISTICS OUTLINED IN ESCWA QUESTIONNAIRE AND THEIR STATISTICAL FRAMEWORK

This annex summarizes the analytical use and policy relevance from a user perspective of each of the short-term statistics outlined in the UNSD publication, *Data Template and Metadata for Short-term Statistics* [UNSD 2015c]. This information for priority indicators are outlined in section N above.

The statistical framework elaborates on the periodicity and timeliness dimensions and the reference to the source data. The analytical framework highlights the analytical use and policy relevance of the indicator data set for monitoring and reporting of economic and financial developments.

Consumer price index	
Analytical framework	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.
Statistical framework	In many countries, the all-items CPI 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 changes, month-to-month, as annual indices and annual percentage change. 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.
Labour market	
Analytical framework	Labour market data comprise a key set of statistics for the assessment of cyclical developments and macroeconomic and social policy making. 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). 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. 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 non-seasonally or seasonally adjusted.
Statistical framework	Labour market data are disseminated on a monthly basis in advanced economies either nonseasonally or seasonally adjusted. In less advanced economies, such data may be lacking or, if available, are disseminated on a quarterly or less frequent basis.
External sector	
Analytical framework	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. 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. 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 BPM 6. 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. 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. 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. 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	The quarterly release of balance of payments with a timeliness of one quarter after the reference period is encouraged. For the international investment position also a quarterly release is preferred with a timeliness of one quarter after the reference period. 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 6 to 9 months after the reference period. The official reserve assets and the template on international reserves can follow monthly periodicity with a timeliness of one month 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. 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. Progressively, countries 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 into 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.

	Total merchandise imports 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 disaggregated components of imports and those of exports by major categories is encouraged, even with a slightly longer lag if needed.
Financial corporations sector	
Analytical framework	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 the net foreign assets. 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. 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). 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 by 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. 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	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. Some countries presently 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. 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.
General government sector	
Analytical framework	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. 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. While the aforementioned balances as 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 from current operations and net cash outflows from transactions in nonfinancial assets. These measures based on the transactions of the governments should be complemented by statistics based on the stock of financial liabilities and assets.
Statistical framework	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.

Household sector	
Analytical framework	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 socio-economic policy making. Also this income variable determined 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	The basic source data for measuring household disposable income at 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 in part be obtained from depository surveys which have a traditionally 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.
Non-financial corporations sector	
Analytical framework	The data on non-financial corporate profits are a measure of the profitability of the corporate sector that can be obtained from administrative and survey data. This and other profitability statistics can assess the vulnerability and sustainability of the corporate 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	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.
Financial market	
Analytical framework	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, meaning 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 selloff 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. 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. The stock market index and market capitalization are important statistics tracking 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 macroeconomic stability of production, consumption and accumulation.
Statistical framework	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.
Real estate market	
Analytical framework	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	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.

16-00273