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Data Template and analytical indicators

International Workshop on Short-term Statistics

18-20 May 2015
Beijing, China

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- *Refresher* on the Work programme
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 - Deliverables
 - Working group
- Data template
 - Background
 - Structure and content
- Handbook on *Data template and metadata for short-term statistics*
 - Content
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Objective of work programme:

- To establish an internationally accepted data and metadata template for short-term statistics for the purpose of:
 - macroeconomic surveillance;
 - early warning of economic and financial vulnerabilities; and
 - detection of turning points in business cycles.



- Working group:
 - UNSD (lead institution)
 - Eurostat
 - Brazilian Institute of Geography and Statistics (IBGE)
 - Ministry of Statistics and Programme Implementation, India

Deliverables:

- An internationally accepted data template together with corresponding reference metadata
- A statistical guide for the data template and metadata structure
- An updated knowledge base on economic statistics



- It consists of an internationally agreed list of indicators and metadata for short-term statistics for use:
 - In macroeconomic surveillance
 - For early warning of economic and financial vulnerabilities
 - For detection of turning points in business cycles



- It is the result of a consultation process with experts and countries on the availability, periodicity, timeliness and dissemination of short-term statistics.
- A Global Assessment was undertaken by UNSD in 2009 to gain insight in the availability of short-term statistics in countries and their data dimensions in terms of periodicity, timeliness and dissemination.
- All UN Member States were invited to participate in the assessment.
- It was discussed and endorsed at the UN Statistical Commission.



Indicators are organized in 12 categories:

- National accounts
- Production and turnover
- Prices
- Labour market indicators

Macroeconomic growth and stability

- External sector
- Financial sector
- General government sector
- Household sector
- Non-financial corporations sector

Sectoral vulnerabilities and developments

- Financial market
- Real estate market

Market conditions

- Tendency indicators
- Composite Business Cycle indicators

Economic sentiment



Indicators are organized in 3 Tiers:

- **Tier 1** consists of the minimum required short-term economic indicators that have strategic importance and are widely available;
- **Tier 2** consists of analytically important short-term indicators that are less widely available;
- **Tier 3** contains short-term indicators that have national significance, given the structure of the economy.



Data template – Structure (3)

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- Each indicator presents a recommended/encouraged periodicity:
 - Quarterly
 - Monthly



Set 1: National Accounts

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	Set 1: National accounts	Tier	Frequency
1.1	Quarterly national accounts: Flash GDP estimate	Tier 1	Quarterly
1.2	Quarterly national accounts: GDP full release		
1.2.1	by expenditure	Tier 1	Quarterly
1.2.2	by production	Tier 1	Quarterly
1.2.3	by income	Tier 2	Quarterly
1.3	Quarterly sector accounts	Tier 3	Quarterly



Set 2: Production and turnover

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	Set 2: Production and turnover	Tier	Frequency
2.1	Production index for industry, by major division (mining, manufacturing, electricity, water, etc.)	Tier 1	Monthly
2.2	Production index for construction	Tier 2	Monthly
2.3	Turnover index for retail trade by major division	Tier 2	Monthly
2.4	Turnover index for industry by major division	Tier 2	Monthly
2.5	Turnover index for other services by major division (excluding financial services and non-commercial services)	Tier 2	Monthly
2.6	New orders index for industry by major ISIC division (for those that work on order)	Tier 3	Monthly
2.7	New orders index for construction (building permits or housing starts)	Tier 2	Monthly
2.8	Commodity production as relevant and other indicators of economic activity	Tier 3	Monthly
	Agricultural products		
	Minerals		
	New car registrations/sales		
	New commercial vehicle registrations/sales		
	Tourist arrivals		



Set 3: Prices

Set 4 :Labour market

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	Set 3: Prices	Tier	Frequency
3.1	Consumer price index	Tier 1	Monthly
3.2	Producer price index	Tier 1	Monthly
3.3	Import price index	Tier 1	Monthly
3.4	Export price index	Tier 1	Monthly
	Set 4: Labour market		
4.1	Unemployment	Tier 1	Quarterly
4.2	Unemployment rate	Tier 1	Quarterly
4.3	Employment total and by economic activity	Tier 1	Quarterly
4.4	Hourly wage rate	Tier 2	Quarterly
4.5	Hours of work	Tier 2	Quarterly



Set 5: External sector

Set 6: Financial sector

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	Set 5: External sector	Tier	Frequency
5.1	Exports and imports (of goods and services)	Tier 1	Monthly
5.2	International investment position (IIP), specify balances and components	Tier 2	Quarterly
5.3	Official reserve assets	Tier 1	Monthly
5.4	External debt (by sector, maturity and foreign currency)	Tier 1	Quarterly
	Set 6: Financial sector		
6.1	Central Bank net foreign assets	Tier 1	Monthly
6.2	Central Bank domestic lending	Tier 1	Monthly
6.3	Central Bank reserve money	Tier 1	Monthly
6.4	Depository corporations net foreign assets	Tier 1	Monthly
6.5	Depository corporations domestic lending	Tier 1	Monthly
6.6	Depository corporations broad money liabilities	Tier 1	Monthly
6.7	Other financial corporations balance sheet, assets and liabilities by sector.	Tier 2	Monthly
6.8	Financial corporate profits	Tier 2	Quarterly
6.9	Financial corporate debt	Tier 2	Monthly
6.10	Others as relevant: nonperforming loans of depository corporations, capital adequacy ratios, other financial stability indicators, etc.	Tier 3	Monthly



Set 7: General government sector

Set 8: Household sector

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	Set 7: General government sector	Tier	Frequency
7.1	Revenue	Tier 1	Monthly
7.2	Expense	Tier 1	Monthly
7.3	Net operating balance (= Revenue - Expense)	Tier 1	Monthly
7.4	Net acquisition of non-financial assets	Tier 2	Quarterly
7.5	Expenditure	Tier 2	Quarterly
7.6	Net lending/net borrowing (= Revenue - Expenditure)	Tier 2	Quarterly
7.7	Gross debt	Tier 2	Quarterly
	Set 8: Household sector		
8.1	Household disposable income	Tier 2	Quarterly
8.2	Household saving	Tier 2	Quarterly
8.3	Household debt	Tier 2	Quarterly
8.4	Other as relevant: household debt service and principal payments, and defaults on home mortgages, credit card debt and car loans etc.	Tier 3	Quarterly



Set 9: Non-financial corporation sector

Set 10: Financial market indicators

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	Set 9: Non-financial corporations sector	Tier	Frequency
9.1	Non-financial corporate profits	Tier 3	Quarterly
9.2	Non-financial corporate debt	Tier 3	Quarterly
9.3	Other as relevant: net foreign exchange exposure, and the number of applications for protections from creditors, etc.		
	Set 10: Financial market		
10.1	Interest rates, as relevant short and long term money and bond market rates	Tier 1	Monthly
10.2	Exchange rates, as relevant spot and forward markets	Tier 1	Monthly
10.3	Nominal and real effective exchange rate	Tier 1	Monthly
10.4	Stock market indicators	Tier 1	Monthly
10.5	Others as relevant : spreads between lending and deposit rates, highest-lowest interbank rate; etc.		



Set 11: Real estate market

Set 12: Economic sentiment

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	Set 11: Real estate market	Tier	Frequency
11.1	Residential property price index	Tier 2	Quarterly
11.2	New house sales	Tier 3	Monthly
11.3	Existing house sales	Tier 3	Monthly
	Set 12: Economic sentiment		
12.1	Consumer confidence	Tier 2	Monthly
12.2	Business confidence	Tier 2	Monthly
12.3	Composite Business Cycle Indicators		
12.3.1	Leading Indicator	Tier 3	Monthly
12.3.2	Coincident Indicator	Tier 3	Monthly
12.3.3	Lagging Indicator	Tier 3	Monthly



- Objectives:
 - Presents an internationally-endorsed data template and metadata for short-term statistics for the purpose of macroeconomic surveillance, early warning of economic and financial vulnerabilities and detection of turning points in business cycles;
 - To provide methodological guidance on the calculation of the indicators and their use;
 - To describe the statistical and analytical properties of short-term economic indicators:
 - why they are relevant in explaining economic activity;
 - how they relate to an integrated set of short-term economic statistics of quarterly national accounts and component data.
- Target audience:
 - both compilers and users of the indicators.



Chapter 1: Data template for short-term statistics

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

Chapter 3: Metadata structure for the data template for short-term statistics

Chapter 4: Analytical Indicators

Chapter 5: National data hubs for short-term statistics

Chapter 6: Implementing the data template for short-term statistics



Chapter 1: Data template for short-term statistics

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- Presents the data template
- Describes scope and coverage, and the analytical and statistical framework
- Relates the data template with other frameworks for short-term statistics:
 - Principal European economic indicators
 - Principal global indicators
 - UN ESCAP's core set of economic statistics



Chapter 2: Statistical standards, recommendations and compilation guidance

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- Provides overview of statistical standards and compilation guidance
- Describes data sources and collection methods
- Repositories
 - Knowledge Base on Economic Statistics
(<http://unstats.un.org/unsd/EconStatKB/Knowledgebase.aspx>)
 - Global Inventory on Statistical Standards
(<http://unstats.un.org/unsd/iiss/MainPage.ashx>)



Chapter 3: Metadata structure for the data template for short-term statistics

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- Provides overview of metadata
 - Descriptive data about object
- Explains need for statistical metadata
 - Ensure transparency about the indicators which are disseminated
 - Ensure harmonization in the content and structure of statistical data to be exchanged
- Provides overview of statistical metadata standards
 - Data Documentation Initiative (DDI)
 - the General Data Dissemination System (GDDS), Special Data Dissemination Standard (SDDS) and Special Data Dissemination Standard Plus (SDDS Plus)
 - Statistical data and metadata exchange (SDMX)
- Suggests metadata applicable to short-term statistics
 - Need to be short and general to be valid for all countries
 - Based on SDMX to support data exchange
- Provides examples of metadata structure



Chapter 4: Analytical Indicators

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- Explores in more detail additional analytical indicators that can be derived from the indicators in the data template for further analysis;
- Presents and describes 3 groups of analytical indicators:
 - Growth rate indicators;
 - Ratio indicators;
 - Share indicators.



Chapter 5: National Data Hubs for short-term statistics

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- Explains the importance of a national data hub to centralize short-term statistics that follow international statistical standards, possibly produced by various institutions in a country, and to make them available at a single access point.
- Describes desired characteristics of data hubs and steps to be considered for their setup:
 - Definition of scope;
 - Timeliness and periodicity of data;
 - Metadata;
 - Data collection and dissemination;
 - Maintenance.
- Provides examples from countries.



- Examples of benefits for National data hubs:
 - Improve access to core set of indicators;
 - Promote the harmonization of dissemination processes among institutions;
 - Foster the harmonization of concepts, definitions and statistical classifications among institutions in the country;
 - Can serve as an opportunity to streamline and coordinate statistical activities reducing duplication of work.



Country examples: KOREAN Statistical Information Service (KOSIS)

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KOSIS, a window to the world

KOSIS Korean Statistical Information Service

HOME SITEMAP KOREAN

Statistical Database Visualization Bulletin Board About KOSIS

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Major Indicators of Korea

Population Projections ('14)	50,423,955 persons	Total Fertility Rate ('13)	1.19 persons
Monthly Average Household Income ('14.1/4)	4,403,278 won	Employment-Population Ratio ('14.05)	60.8 %
Unemployment Rate ('14.05)	3.6 %	GDP Growth Rate(Real) ('14.1/4)	0.9 %
Per Capita GNI (at current prices) ('13)	2,869.5 ten thousand won	Consumer Price(Year_on_year) ('14.06)	1.7 %
Life Expectancy at Birth ('12)	81.44 years	Degree of Air Pollution(Ozone) ('12.12)	0.015 ppm

Statistical Database

Population/Household	Environment	Transportation/Information and Communication	Finance/Banking/Insurance
Employment/Labor/Wage	Agriculture, Forestry and Fishery	Wholesale and Retail Trade/Service Industry	Trade/Foreign Exchange/Balance of Payments
Price/Household Income and Expenditure	Mining and Manufacturing Industry /Energy	Economy/Corporate Business (Company)	Education/Culture/Science
Health/Society/Welfare	Construction/Housing/Land	National Accounts/Regional Accounts/National Wealth	Administration

Visualization

Homo Statisticus	Now Preparing Men vs Women
Business Cycle Clock	G20 Statistics

News Releases FAQ Q&A + MORE

- Consumer Price Index in June 2014 2014-07-01
- The Index of Services in May 2014 2014-06-27
- Monthly Industrial Statistics, May 2014 2014-06-27
- Cultivated Area of Barley, Spring Potatoes, Apples and Pe... 2014-06-26
- Statistics of Double-earner Households in 2013 2014-06-25
- Internal Migration in May 2014 2014-06-25
- Vital Statistics in April 2014 2014-06-25
- Economically Active Population Survey in May 2014 2014-06-11

Pop-up Zone

English version of KOSIS provides official statistics on 103 subject matters of 19 statistical agencies as of Jun. 30, 2014.

Explore Korea through Statistics [E-Book](#)

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Government Complex Daejeon, 189 Cheongsu-ro, Seo-gu, Daejeon, Republic of Korea, 302-701 (zip) TEL +82-42-481-9114

Source: <http://kosis.kr/eng/>



Country example: Data portal of the United Arab Emirates

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Source: National Bureau of Statistics UAE, at: <http://dataportal.nbs.gov.ae/en>



Country example: Data hub in India

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Ministry of Finance. Department of Economic Affairs. Economic Division. INDIA: Economic and Financial Data Special Data Dissemination Standard [SDDS] National Summary Data Page [NSDP]

Update Jul/11/2014

This page is updated periodically. Unless otherwise indicated, data are preliminary when first released. Data are not seasonally adjusted.

SDDS data category and component	Real Sector Fiscal Sector Unit of description	Financial Sector			Population	Percentage change from previous to latest period	More	Meta data
		Observations	Latest data	Data for previous period				
		Period of latest data						
REAL SECTOR								
National Accounts								
Gross Domestic Product at current prices	`.Crore	Jan/14 - Mar/14	2801061	2542211	ARC	10.2	more	DSBB
Agriculture	`.Crore	Jan/14 - Mar/14	503687	440083		14.5	-	-
Industries	`.Crore	Jan/14 - Mar/14	702969	670508		4.8	-	-
Services	`.Crore	Jan/14 - Mar/14	1594405	1431621		11.4	-	-
Gross Domestic Product at constant 2004-05 prices	`.Crore	Jan/14 - Mar/14	1538380	1470645		4.6	-	-
Agriculture	`.Crore	Jan/14 - Mar/14	214165	201410		6.3	-	-
Industries	`.Crore	Jan/14 - Mar/14	400837	401609		-0.2	-	-
Services	`.Crore	Jan/14 - Mar/14	923378	867626		6.4	-	-
Gross Domestic Product (Implicit Price Index)	Index 2004-05 = 100	Jan/14 - Mar/14	182.1	172.9		5.3	more	DSBB
Agriculture	Index 2004-05 = 100	Jan/14 - Mar/14	235.2	218.5		7.6	-	-
Industries	Index 2004-05 = 100	Jan/14 - Mar/14	175.4	167.0		5.0	-	-
Services	Index 2004-05 = 100	Jan/14 - Mar/14	176.0	165.7		6.2	-	-
Production Index (Index of Industrial Production)								
General	Index 2004-05 =100	Apr/14	172.1	166.5		3.4	more	DSBB
Mining	Index 2004-05 =100	Apr/14	122.0	120.5		1.2	-	-
Manufacturing	Index 2004-05 =100	Apr/14	180.7	176.1		2.6	-	-
Electricity	Index 2004-05 =100	Apr/14	178.1	159.1		11.9	-	-
Use-Based Classification								
Capital Goods	Index 2004-05 =100	Apr/14	239.8	207.3		15.7	-	-
Intermediate Goods	Index 2004-05 =100	Apr/14	151.7	145.3		4.4	-	-
Consumer Goods	Index 2004-05 =100	Apr/14	180.9	190.6		-5.1	-	-
Consumer Price Index (CPI)								
CPI-Industrial Workers (CPI[IW])	2001=100	May/14	244.0	228.0		7.02	-	-
CPI-Rural Labourers (CPI[RL])	1986-87=100	May/14	780.0	720.0		8.33	-	-
CPI-Rural	2010=100	May/14	141.3	129.8		8.86	-	-
CPI-Urban	2010=100	May/14	138.1	128.4		7.55	-	-
CPI-Combined	2010=100	May/14	139.9	129.2		8.28	-	-
Wholesale Price Index (WPI)	2004-05=100	May/14	181.7	171.4		6.01	more	DSBB
FISCAL SECTOR								

Source: Ministry of Finance, Department of Economic Affairs

http://www.finmin.nic.in/stats_data/nsdp_sdds/index.html



Chapter 6: Implementing the data template for short-term statistics

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- Draws upon the elements of the implementation programme for the 2008 SNA and supporting statistics
- Provides strategies for establishing data template which are based on the principles of
 - Strategic planning;
 - Coordination, monitoring and reporting;
 - Improving statistical systems.



Principles are operationalized through:

- Establishing a common system wide consultative process comprising an assessment of the current strengths and weaknesses of the statistical production process, the development of goals to mitigate weaknesses and the development of a programme for remedying shortcomings and implementation of national and sectoral capacity building programmes;
- Establishing a common core set for sectoral and structural short term statistics;
- Establishing a common structure for metadata template for sectoral and structural and short term statistics;
- Using a common questionnaire for the self-assessment of strengths and weaknesses of the statistical production process.



Self-assessment questionnaire

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- To assist countries in taking stock of the current situation with regard the short term indicators of the Data Template
- To form the basis for an action plan to improve the availability, quality and timeliness of the short-term statistics
- For each indicator in the data template, questions cover:
 - Dissemination and communication
 - Metadata and data reporting
 - Surveys and administrative sources
 - Technical cooperation and capacity building



Preparation process

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- Draft chapters are currently being prepared.
- Consolidated draft of handbook is expected to be circulated for global review in 4th quarter of 2015.
- If you wish to be included in global review or have any other questions, please email:

sna@un.org





Thank you!