Economic Tendency Surveys

International Workshop on Short-term Statistics

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United Nations Statistics Division

- Provide an overview of the Handbook
  - Background
  - Overview
  - Status of preparation
- Tendency Surveys
  - Frequency
  - Questionnaire
  - Answering scheme
- Data collection methods
- Data processing
- Metadata and data dissemination

Economic Tendency Surveys

- They are tools used to capture an assessment of the past situation, current situation and expectations on future developments of business and/or consumers.

- They are an integral part of an early warning system because they provide information about the occurrence and timing of upturns and downturns of the economy.

The objective of the Handbook

To provide best practices and harmonized principles on tendency survey covering aspects such as:

sample selection;

questionnaire design;

survey questions;

survey execution;

data processing;

dissemination of results; and

use of the results of tendency surveys.

Preparation process

A working group was established in 2012:

- The Italian National Statistical Institute (ISTAT) (lead institution)

- The KOF Swiss Economic Institute

- Statistics Netherlands (CBS)

- Philippine Statistical Authority

- The Organisation for Economic Co-operation and Development (OECD)

- UNSD

A draft was prepared and reviewed by experts during the period January 2013 - May 2014

Preparation process

- 28 July- 29 August 2014: Global Consultation with countries, international/regional organizations, and other relevant institutions took place during the period

Responses:

- 65 responses were received
- Overall there was a strong support for the Handbook: the responses were extremely positive and a number of useful comments were received.
- Summary report is available at:

http://unstats.un.org/unsd/nationalaccount/gcItemETS.asp

Preparation process

- October 2014 - March 2015: revisions of the draft by ISTAT and UNSD
- May-June 2015: final review by the working group
- Summer 2015: submission for publication

Consultative and transparent drafting process!

Chapter 1: Introduction

Chapter 2: Scope of Economic Tendency surveys

Chapter 3: The questionnaire design

Chapter 4: Survey frame and sample design

Chapter 5: Estimation procedures and accuracy

Chapter 6: Data collection

Chapter 7: Managing sources of non-sampling errors

Chapter 8: Processing tendency survey data

Chapter 9: Data dissemination and publication

Chapter 10: Use of tendency survey results

- The Handbook is based on existing work by international/regional organizations and countries' experience:

  - Joint Harmonized EU Programme of Business and Consumer Surveys (Directorate-General for Economic and Financial Affairs)

  - Business Tendency Surveys - A Handbook (OECD)

 - Country experience compiling these surveys

- Surveys aimed at collecting (mainly qualitative) information on the assessment of the current and future economic situation.

- They are an important tool for economic monitoring, short-term forecasting and economic research.

- Main features of tendency surveys:
  - Simplicity of the questionnaire
  - Assessment mainly provided through *qualitative* responses
  - Frequency and timeliness of the responses

Historical development

- ## 1920s
  - Some countries started conducting tendency surveys

- ## 1950s
  - more countries implement these surveys (France, Germany, etc.)
  - Centre for International Research on Economic Tendency Surveys (CIRET) was founded.
  - CIRET is a forum for leading economists and institutions concerned with analysing and predicting the development of the business cycle and the economic and socio-political consequences.
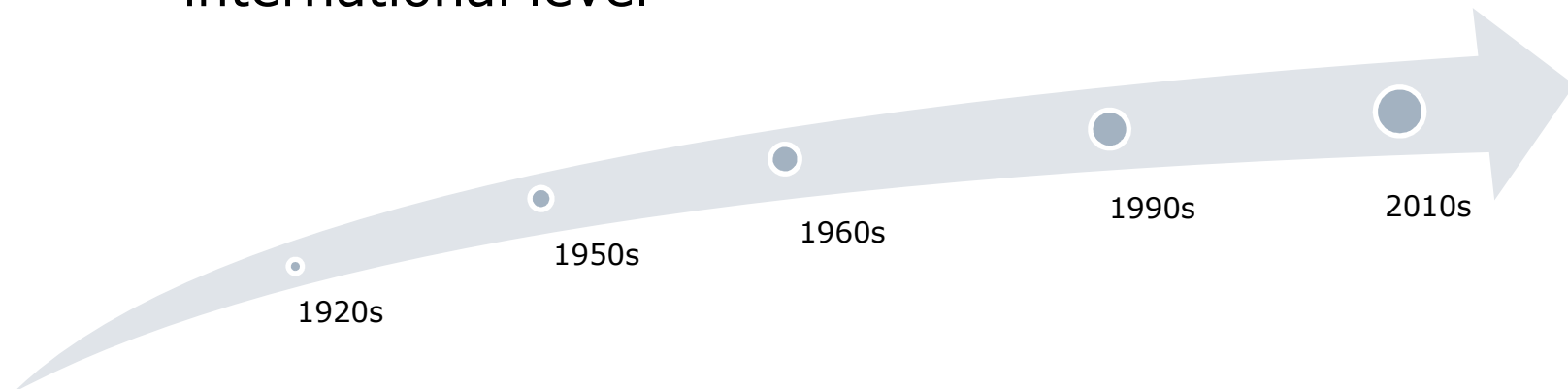
1920s   1950s   1960s   1990s   2010s
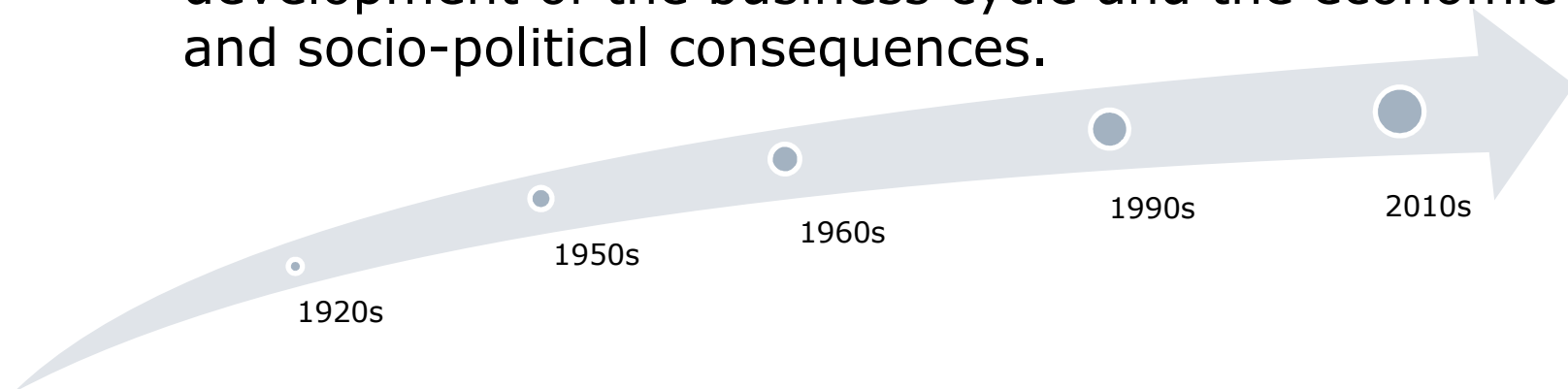
Historical development

- ## 1960s
  - The European Commission launched the Joint Harmonized EU Programme of Business and Consumer Surveys

- ## 1990s
  - The OECD started a programme on business tendency surveys

- ## 2010s
  - Importance of tendency surveys acknowledged at international level

1920s   1950s   1960s   1990s   2010s

They provide source of information for:

- Economic surveillance

- Calculate composite indicators (e.g. Consumer confidence indicators, etc.)

- Input variables for forecasting (nowcasting)

- Economic research

- **Main differences:**

  - Qualitative vs quantitative responses

  - Time of release

  - Perception vs objective measures/levels

- **Tendency surveys are not a substitute for quantitative data, but rather they complement such data.**

  - The fact that the series move together gives credibility to both data sets

- **Business tendency surveys**

  - They are carried out among specific segments of the economy

  - The target population: economic activities in the specific segment of the economy

  - They ask for an assessment of the company's current and future situation and of the economy as a whole

- **Core economic activities:**

  - Manufacturing

  - Construction

  - Retail trade

  - Services

Business tendency surveys

- Core economic activities:

  - Manufacturing
  - Construction
  - Retail trade
  - Services

    ISIC Section C – Manufacturing

    ISIC Section F – Construction

    ISIC Division 45 and 47

    ISIC Section H

- Economic activities of interest

  - Agriculture
  - Wholesale
  - Financial Services

    ISIC Section A – Agri. forestry and fishing

    ISIC Division 46 – Wholesale trade

    ISIC Section K – Financial and insurance activities

- Economic activities classified according to the *International Standard Classification of All Economic Activities*, ISIC Rev. 4

- Factors that affect the choice of the economic activities to cover:

    - Contribution to the overall economy

    - Cyclicality

    - Control by the Government Sector

Consumer tendency surveys

- **Consumer tendency surveys**
  - The are carried out among consumers
  - Target population: adult population in a country
  - They ask for an assessment of the past, current and future economic situation of the household and of the country

- The choice of the frequency of the surveys is the result of a trade-off between the availability of resources and the need for timely signal on economic development

- They are generally conducted on a <u>monthly basis</u>

- Specific questions are asked on quarterly basis (e.g. factors limiting production, capacity utilizations, likelihood to buy a car, etc.) and semi-annual basis (e.g. investments).

- **Basic principles for the questionnaire design**

  - Questions measure business activity at an early stage (in order to timely capture business cycle developments);

  - The topic of the questions should be sensitive to changes in the economic environment;

  - Questions mainly focus on assessments, expectations and plans even though some quantitative information may be asked;

  - The number of questions should also be kept to a minimum in order to reduce response burden.

- **Respondents are asked to exclude seasonality.**

- Questionnaire includes a section on the <u>characteristics</u> of the respondents.

- Pre-testing of the questionnaire is particularly important.

- The Handbook provide a list of internationally agreed questions. Additional questions can be added by countries based on the specific situation.

Monthly

Economic activities	Topic of the questions	Past (3 months)	Present	Future (3 months)
Manufacturing	Evolution of production	X		X
	Evolution of employment	X		X
	Level of order books		X	
	Level of export order books		X	
	Stock of finished goods		X	
	Evolution of selling prices			X
Construction	Evolution of building activity	X		X
	Evolution of employment	X		X
	Level of order books		X	
	Factors limiting production		X	
	Evolution of selling prices			X

Monthly

Economic activities	Topic of the questions	Past (3 months)	Present	Future (3 months)
Retail Trade	Evolution of business activity(sales)	X		X
	Evolution of employment	X		X
	Evolution of orders placed with suppliers			X
	Stock of finished goods		X	
	Evolution of selling prices			X
Services	Evolution of business situation	X		X
	Evolution of employment	X		X
	Evolution of demand (turnover)	X		X
	Evolution of selling prices			X

Quarterly

Economic activities	Subject	Past (3 months)	Present	Future (3 months)
Manufacturing	Evolution of order books	X		X
	Evolution of export order books			X
	Months of production assured by current order books		X	
	Factors limiting production		X	
	Production capacity		X	
	Capacity utilisation		X	
	Stock of raw materials		X	
	Evolution of the competitive position on the domestic market	X		
Construction	Months of production assured by current order books		X	
	Capacity utilisation		X	

Quarterly

Economic Activities	Subject	Past (3 months)	Present	Future (3 months)
Services	Factors limiting activity		X	
	Increase of volume of activity with present resources		X	
Financial Services	Evolution of operating income	X		X
	Evolution of operating expenses	X		X
	Evolution of profitability	X		X
	Evolution of capital expenditure	X		X
	Evolution of competitive position	X		X

Monthly

Subject	Past (12 months)	Present	Future (12 months)
Evolution of household financial situation	X		X
Evolution of the general economic situation in the country	X		X
Evolution of consumer prices	X		X
Evolution of the number of unemployed people			X
Right moment to make major purchases		X	
Evolution of money spent on major purchases			X
Opportunity to save		X	X
Statement best describing the household financial situation		X	

Quarterly

Subject	Past (12 months)	Present	Future (12 months)
Likelihood to buy a car			X
Plans to buy or to build a home			X
Likelihood to spend large sums of money on home improvements or renovations			X

- Multiple choice questions with possible answers on a (3- or 5-level) Likert scale

Examples:

□ Above normal
□ Normal
□ Below normal

□ A lot better
□ A little better
□ Same
□ A little worse
□ A lot worse

□ Increase
□ Remain unchanged
□ Decrease

Data collection

	Business tendency surveys	Consumer tendency survey
Target population	All companies carrying out the specific kind of economic activity	Adult individuals
Sample frame	Business registers	Population registers; electoral rolls; phone registers
Sample design	Panel sample (with rotating panel)	

The sample design depends on the specific situation in the country.

A review of the available sample design is provided in the handbook.

Sample techniques are used to make inference on the population based on the sample and dealing with sampling and non-sampling errors.

- Percentages for each reply option

CHART 1. PRODUCTION TENDENCY
REPLAY OPTIONS: UP, SAME, DOWN

From *Business Tendency Surveys - A Handbook* (OECD 2003)

30
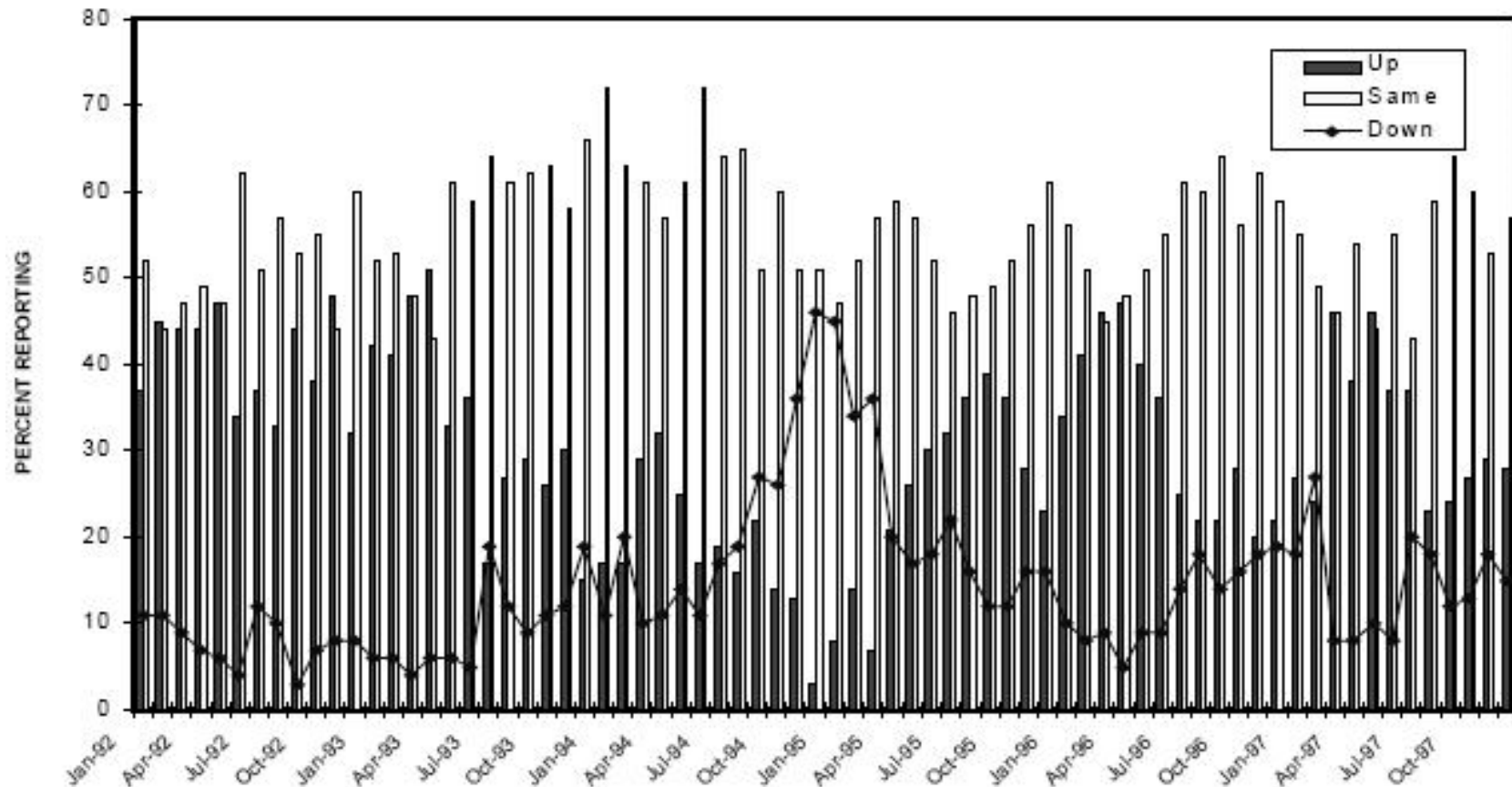
- For a 3 option answers, the **balance** is calculated as:

$$B = P - N$$

where

- Above normal (P)
- Normal
- Below normal   (N)

- For a 5 option answers, the **balance** is calculated as:

$$B = \left(PP + \frac{1}{2}P\right) - \left(\frac{1}{2}N + NN\right)$$

where

- A lot better   (PP)
- A little better   (P)
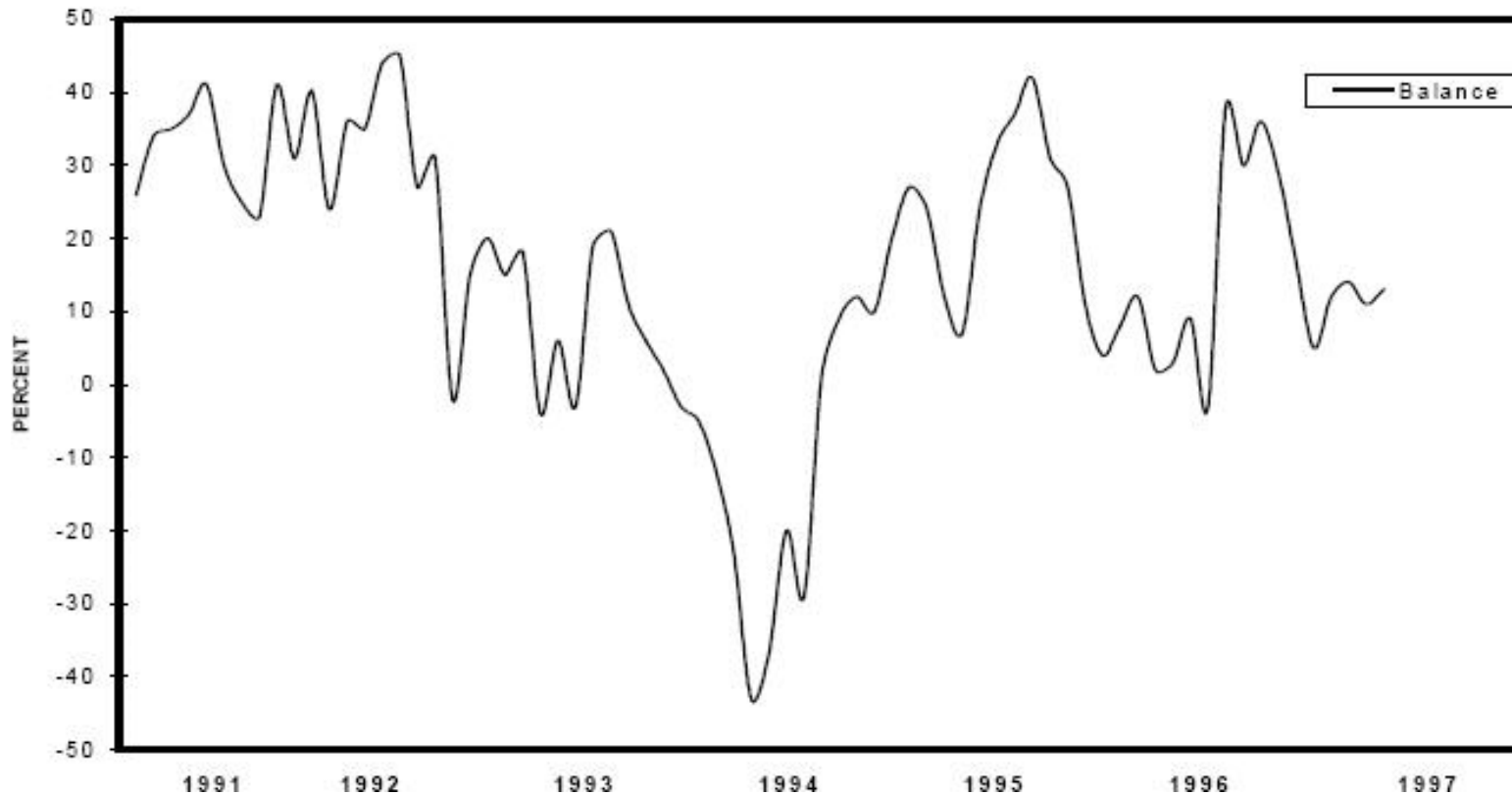- Same
- A little worse   (N)
- A lot worse   (NN)

The Diffusion Index is calculated as:

$$DI = \frac{1}{2}(100 - B)$$

CHART 2. PRODUCTION TENDENCY
BALANCE=UP-DOWN

From *Business Tendency Surveys - A Handbook* (OECD 2003)

- **Probabilistic methods**

  - They assume a probability distribution of the opinion of the respondents

- **Regression methods**

  - They assume that respondents implicitly attach a quantitative variable to each qualitative option

- **Latent factors models**

  - They assume a latent variable behind each qualitative reply

Choice of the quantification methods

- Percentages
- Balances
- Diffusion index

For presentation of the results and calculation of composite indicators

- Probabilistic methods
- Regression methods
- Latent factors models

For business cycle analyses and economic modelling

It is important to provide <u>metadata</u> when disseminating the results of tendency surveys.

Contact data

Country
Survey
Organization
Official address
Website
Contact person

Data and dissemination

Type of data
Unit of measure
Data revision
Frequency of dissemination
Dissemination format
Release policy

Metadata update

Methodology

Survey frame
Size of frame list
Characteristics
Frame list update
Population
Sampling method
Sample size
Sampling error
Response rate
Treatment of non-responses
Sample coverage
Weighting scheme
Kinds of economic activities
Periodicity
Survey method
Fieldwork period
Remarks methodology

35

Important considerations on data dissemination:

Release calendar

Confidentiality

Revision policy

Press release

Thank you