



# Enterprise surveys

**Workshop on Statistics of International Trade in Services:  
Challenges and Good Practices  
Rio de Janeiro, 1 – 4 December 2009**



**United Nations Statistics Division**  
Statistics of International Trade in Services Section



# Conducting enterprise surveys for SITS

- Recommendations in the Manual on SITS
- Recommendations in BPM5 compilation guide
- Defining the population of enterprises
- The sampling frame
- Sampling
- Data collection
- Validation and quality control of the data
- Estimation and weighting procedures
- Reconciliation with ITRS and other data sources



3.153. Surveys of enterprises collect information in aggregate form on the transactions of resident enterprises with non-residents. Such surveys may be full coverage or conducted on a sample basis.



## Recommendations in Manual on SITS

Surveys of enterprises may be conducted to collect information from enterprises engaged in specific activities (for example, airlines that are engaged primarily in carriage of passengers and freight, legal firms that supply only a small range of services, or hotels and restaurants that cater primarily to overseas visitors) or may be applied to a wide range of enterprises to collect information on all of their services transactions, or even on all of their balance of payments transactions.



## Recommendations in Manual on SITS

To be successful, such surveys require the use of an up-to-date register of enterprises and good survey techniques (such as appropriate follow-up, and verification and imputation techniques).



131. The approaches of enterprise surveys may range from data collection by telephone from a few large companies to highly organized, large scale, mail-based collections. An enterprise survey may be designed to capture a specific type of data or to obtain data that supplements other sources, such as an ITRS.



132. ES should be based on clearly defined objectives, sound collection methodology, and a well-established legal basis; properly designed collection forms, full coverage of the population, well-defined data structures and classifications, and effective data validation and aggregation procedures are also required for ES.



## Defining a population of enterprises

- Resident enterprises in the reporting economy involved in international trade in services with non-residents.



## The sampling frame

- International Transaction Reporting System ITRS
- Administrative registers of enterprises that do international transactions, ex. VAT registers.
- National business register – all registered enterprises



## The sampling frame

- Which enterprises should always be surveyed?
- Is there a 'stable' population of enterprises involved in international service transactions?
- Coverage of smaller enterprises, stratification (ex. By size and industrial activity)



### The population frame

$p < 1$

- Stable population from ITRS
- Big firms from VAT-register
- All over 10-employees firms from INE's business register (DIRCE)
  
- Stratification on activity (NACE) and size
- Correlation main activity/foreign trade?
  - Import vs export
  - Stable vs unstable population

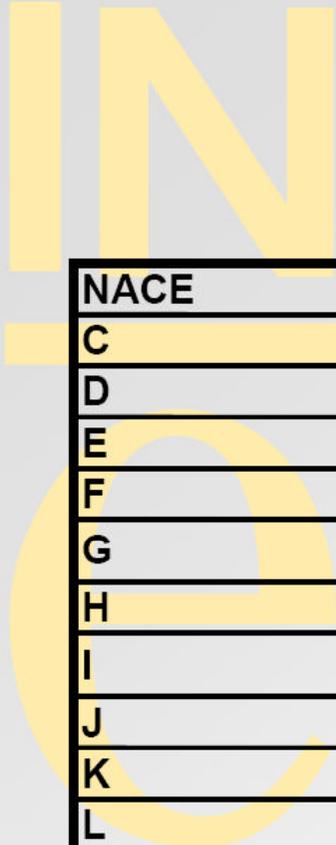


## Sampling

- Sample size: How many enterprises to survey?
- Frequency of survey: quarterly, yearly?
- Different surveys to cover different service items or customized to different industries (airliners, hotels and restaurants, construction firms etc.) ....
- ... or one survey 'fits all'?
- Can data from existing administrative sources be used?
- Include questions on external trade in services in other already established enterprise surveys?

# Sampling – example Spain

Subdirección General de Estadísticas de los Servicios



## Sample CIS 2005

NACE	Small and medium size firms	Stable populat.		
		BIG FIRMS	without VAT	
				With VAT
		B1	B2	
C	Legal entities with more than 10 employees  DIRCE  Population: 146.402 Sample: 3.495  % 2,39	Stable Population 4.126  99-02 + 01-04 EXHAUSTIVE	Populat. 12.094	Pop. 9.370
D			Sample 1.581	Sample 1.102
E			% 13,07	% 11,76
F				
G				
H				
I				
J				
K				
L				
M				
N				
O				
P				
Q				



## Data collection

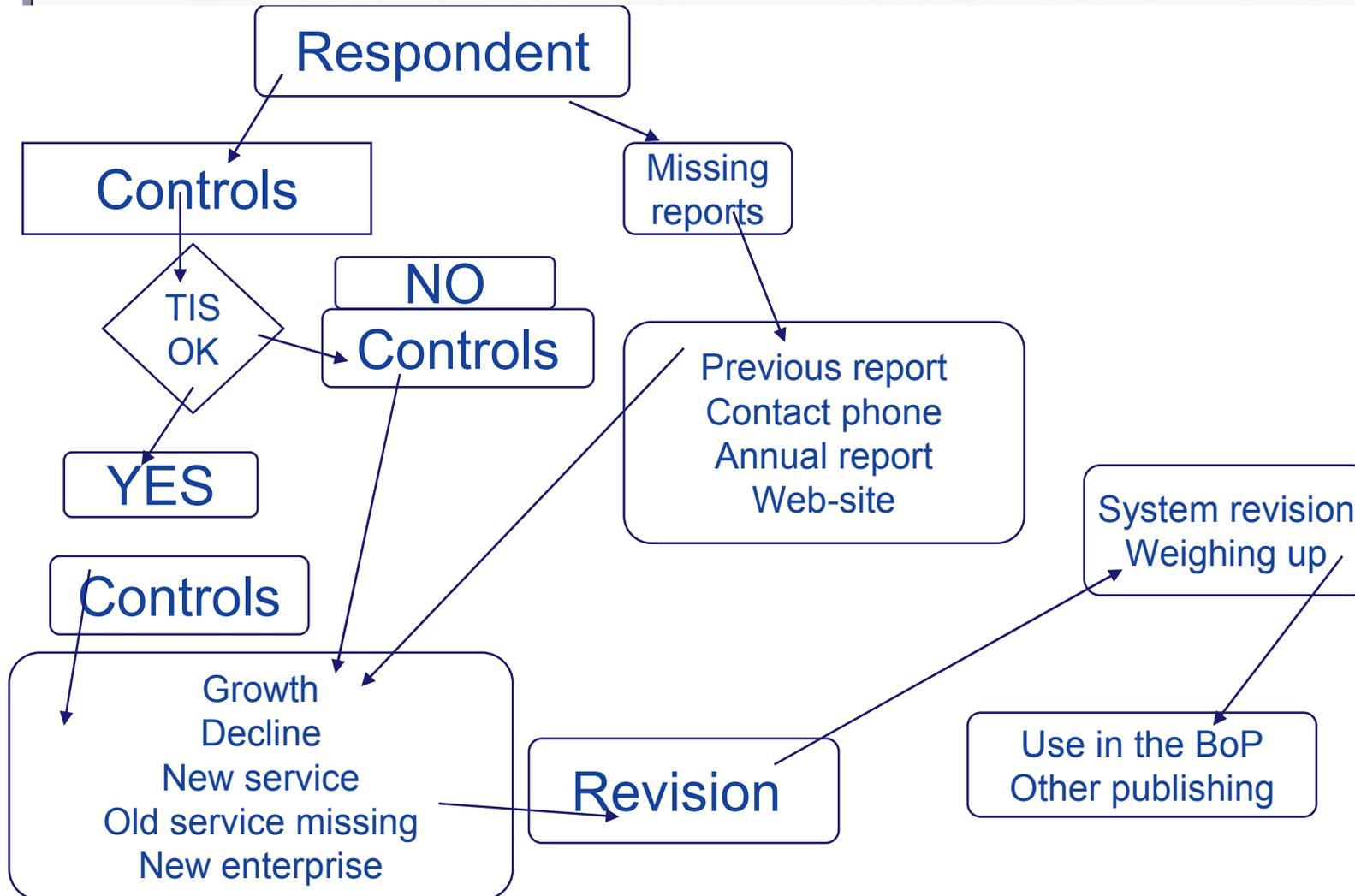
- Ways of data collection
  - telephone interview
  - questionnaires by mail,
  - electronic questionnaires,
  - web-surveys



## Validation and quality control of the data

- Follow up on non-response
- Reduce respondent errors
- Make sure there is as little processing error introduced as possible – sound system for data revision

# Validation and quality control – example Norway





## Estimation and weighting procedures

- Linking the survey responses to initial sample design
- Making sure we have a sample that is representative of the underlying population of all enterprises
- Non-response
- Imputation



## Reconciliation with ITRS and other sources

- Comparing the grossed up results of survey and ITRS
- If possible, study on micro-level any discrepancies
- If needed, do adjustments to reconcile the statistics

# Reconciliation with ITRS – example Spain

## COMPARISON BOP-ITS SURVEY RESULTS (V): STRUCTURE BY TYPE OF SERVICE

Table 3

BOP ITEM	EXPORTS				IMPORTS			
	2006		2007		2006		2007	
	ITS (adjust.)	BOP						
Transport	52,26%	33,07%	49,34%	30,45%	36,22%	33,31%	44,98%	31,54%
Communication	5,93%	2,57%	4,73%	2,33%	4,15%	3,64%	5,65%	3,72%
Construction	3,33%	3,98%	4,04%	5,16%	1,31%	2,13%	1,78%	2,20%
Insurance	2,02%	1,38%	3,14%	2,10%	3,73%	3,15%	5,21%	3,33%
Financial	7,26%	7,07%	7,68%	8,56%	2,97%	6,76%	4,36%	7,42%
Computer and Information	15,79%	7,22%	13,73%	7,36%	5,29%	3,40%	5,66%	3,23%
Royalties	2,12%	1,71%	1,54%	0,75%	9,75%	4,07%	12,49%	3,92%
Personal	1,95%	2,25%	2,99%	2,37%	0,59%	3,11%	1,53%	3,13%
Government	1,68%	1,45%	1,48%	1,37%	0,68%	0,68%	1,01%	0,60%
Other business services	7,64%	39,29%	11,33%	39,56%	35,32%	39,76%	17,33%	40,90%

Source: Banco de España.

- Regarding structure by BOP item, stands out the loose of weight of Other business services
- Gaining in importance Transportation, Communication, Computer and Information services and Royalties and license fees
- In the case of the imports, it is worthy to mention the increase of the weight over total of the Royalties and license fees component