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Survey on the Update and Revision of SPPIs Summary Report

Itsik Tal, CBS, Israel

Itsikt@cbs.gov.il

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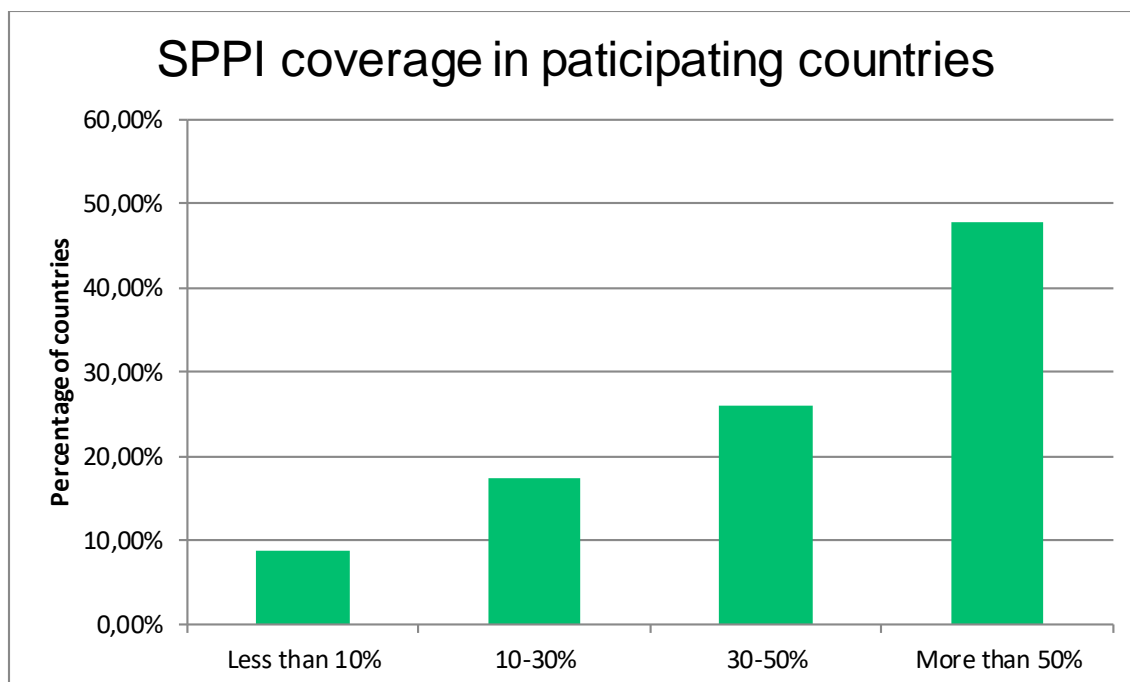
Introduction

An electronic survey on the update and revision of SPPIs was sent to Voorburg Group members in May 2020. The purpose of the survey was to compare the different methods, practices and sources used for updating and revising SPPIs in different countries. The results of the survey may help in providing future guidance on this subject. Also, the survey raises some issues of NSOs regarding updating SPPIs.

1. General information

A total of 23 countries¹ participated in the survey; 11 of them have SPPIs covering more than 50% of the total services sector by revenue; six of them cover between 30-50%, four between 10-30% and two cover less than 10% of the total services sector. In 18 countries surveys for SPPIs are mandatory, including one country where surveys are mandatory for companies with a certain amount of turnover. The USA and Canada are the only two countries that reported having regional SPPIs for some of the industries in addition to national SPPIs for other industries. Thirteen of the countries that participated in the survey are EU members.

¹ For the full list of countries that participated in the survey see Appendix A.



2. Sources used for updating SPPIs

2.1 Sources used for indices weights

The questionnaire distinguished between sources used for evaluating industry weights, and sources used for evaluating detailed product category weights in the price indices. Respondents were asked to give all sources used for the evaluation of industry weights and detailed product category weights.

A survey is used as a source in 63.6% of the countries (14 out of 22 countries²) for the evaluation of detailed product category weights, whereas for the evaluation of industry weights, a survey is used in 60.0% of the countries (12 out of 20 countries³). According to our survey, this source is the most common for both the evaluation of detailed product category weights and industry weights.

Administrative data is used as a source by 50.0% of the countries (11 countries) for the evaluation of detailed product category weights, and the same percentage

² One country skipped this question.

³ Three countries responded they do not aggregate data on industry level.

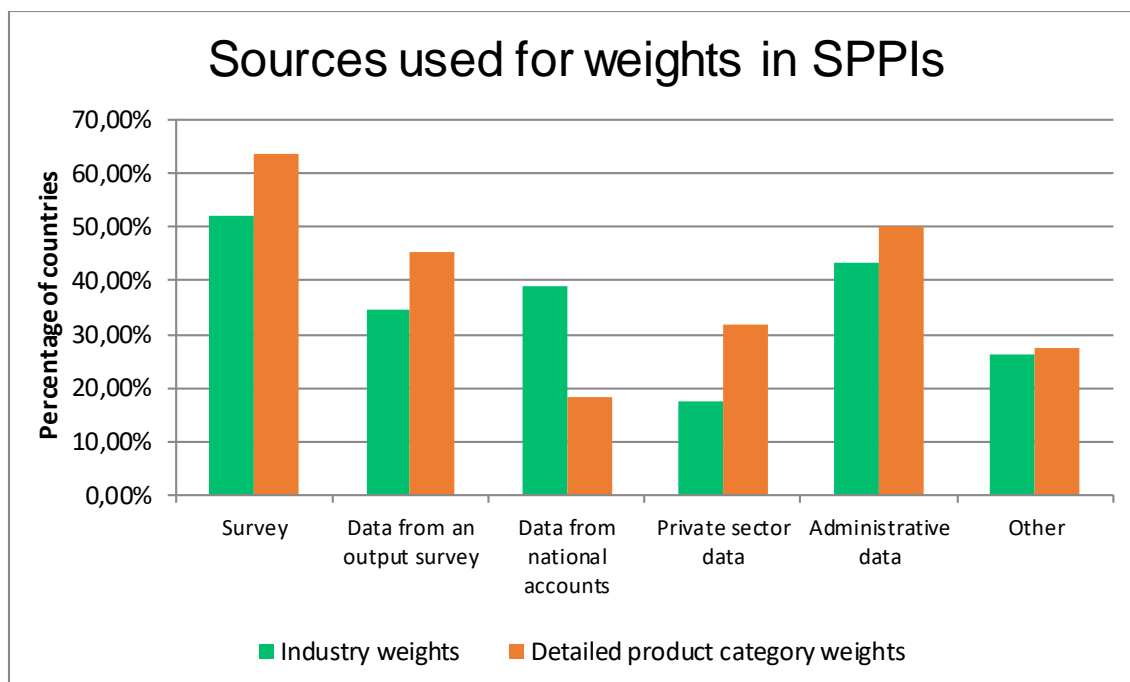
of countries (10 countries) use administrative data for the evaluation of industry weights.

Data from an output survey is used by 45.5% of the countries (10 countries) as a source for the evaluation of detailed product category weights and 40.0% (8 countries) use this source for the evaluation of industry weights.

Although only 18.2% of the countries (4 countries) use data from national accounts as a source for the evaluation of detailed product category weights, 45.0% of the countries (9 countries) use this source for the evaluation of industry weights.

Private sector data is used by 31.8% of the countries (7 countries) for the evaluation of detailed product category weights and by 20.0% (4 countries) for the evaluation of industry weights. The use of private sector data was more common in countries that are not EU members.

Other sources that were not given as a choice in the questionnaire but were mentioned by respondents as sources for the evaluation of weights in SPPIs were SBS data and an economic census, for both industry and detailed product category weights. For detailed product category weights, an annual survey on enterprises and data from business associations and organizations were also mentioned.



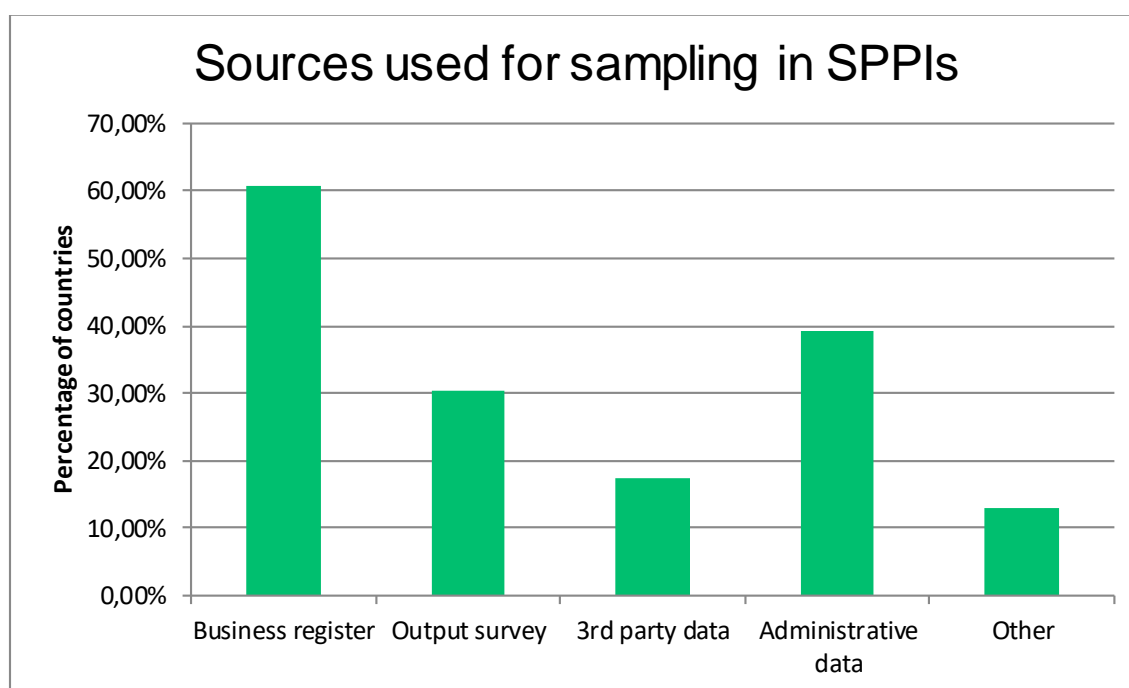
In countries where SPPIs are sampled by product (7 of the total 23 countries), a survey and data from an output survey are the common sources for the evaluation of detailed product category weights. Both sources are used by 71.4% of the countries that sample SPPIs by product. The use of other sources was less than 30% in the same countries.

Eleven countries of the total 23 countries reported that their NSO conducts a detailed survey by product in services industries, which is addressed to enterprises or establishments. In seven countries the survey is annual, in two countries the survey is conducted quarterly and in one country monthly. In general, data gathered in such a survey should serve as a good source for detailed product category weights in SPPIs.

2.2 Sources used for sampling

The main source used for sampling for SPPIs is the business register: 60.9% of the countries responded that they use the business register when sampling for SPPIs; 39.1% responded they use administrative data, 30.4% use an output survey and 17.4% use 3rd party data. In the latter case, all of them are non-EU

member countries. Other sources for sampling that were also mentioned were an annual survey on enterprises and industry experts.

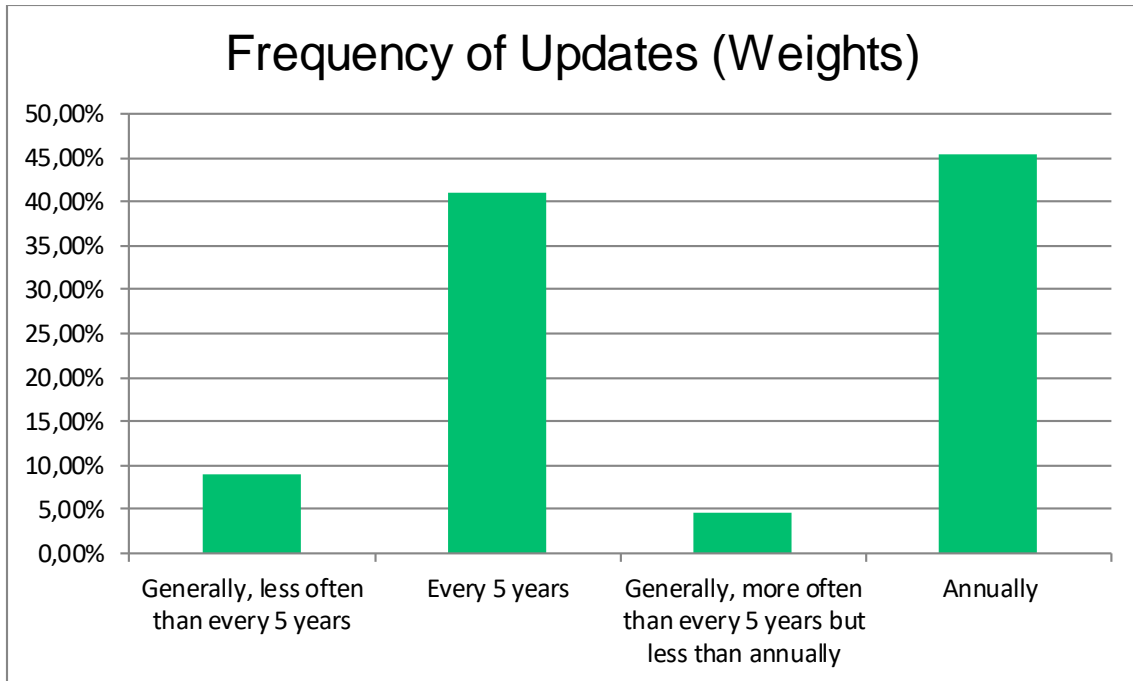


The classifications used for updating SPPIs by EU member countries are mostly NACE Rev.2 and CPA 2008. Other countries use mostly ISIC Rev.4, NAICS and national classifications.

3. Frequency of updates and other practices regarding updates

3.1 Weights

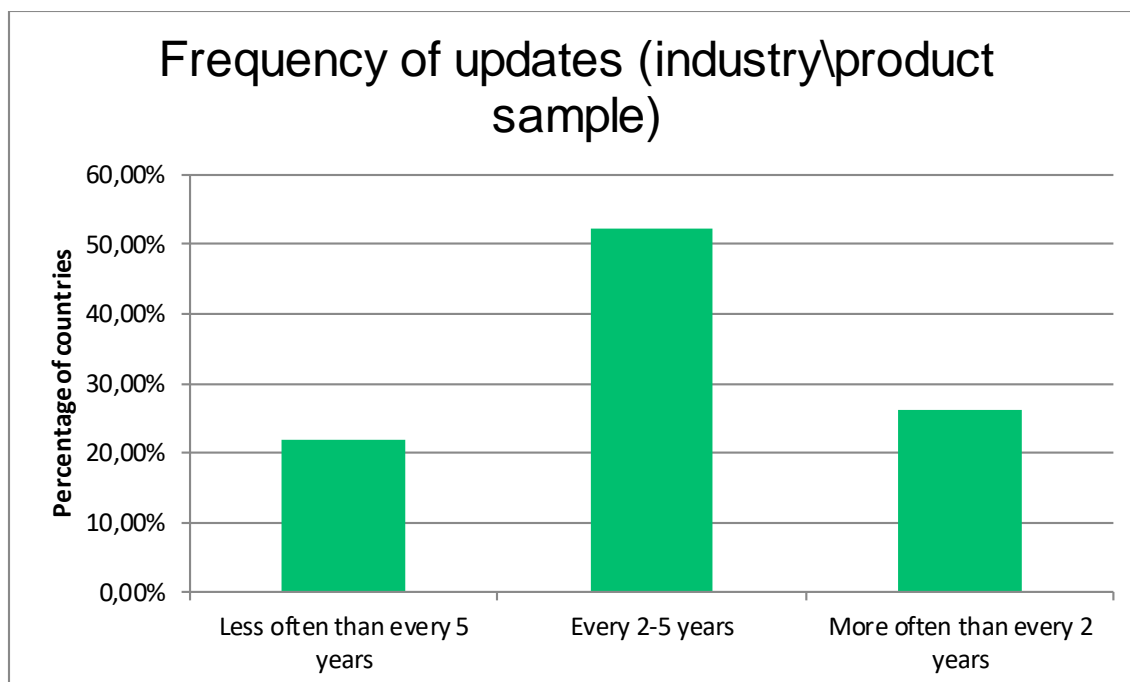
Of the surveyed countries, 45.5% (10 out of 22 countries) update their indices weights annually. Of the countries which reported updating their indices annually, 80% were EU members. Nine countries, 40.9%, update weights every five years. Only two countries reported updating weights less often than every five years and one country reported updating weights between annually and every five years. Of the surveyed countries, 90.9% (20 out of 22) reported that they update all indices weights at the same time.



3.2 Samples

Industry or product samples are less frequently updated than weights. Of the surveyed countries, 52.2%⁴ update their industry/product samples every two to five years; 26.1% of countries update their samples more often than every two years – all of them are EU member countries and half of them are countries that sample SPPIs by product; 21.7% of countries update their samples less often than every five years.

⁴ Including Germany that updates all the samples every five years, and annually for units with probability of sampling = 1.



3.3 Statistical unit

Enterprise is the statistical unit used by most countries for SPPIs (43.5%), followed by establishment (26.1%), kind-of-activity unit (8.7%) and legal unit (8.7%). Others (13.0%) reported using more than one of the statistical units mentioned above.

3.4 Index reference period

Of the surveyed countries, 54.5% use a yearly average as the index reference period; 27.3% (mostly EU member countries) use a quarterly average and 9.1% use a monthly average. The rest (9.1%) use a yearly average as a reference period on some indices and a quarterly average on others.

4. Sampling methods

Twelve countries reported attempting two stages of sampling when updating SPPIs, nine reported attempting only one stage, and two countries attempt more than two stages of sampling.

Respondents were asked to rank the different sampling methods they use for sample unit selection when updating SPPIs. Some countries responded that they apply more than one sampling method together, which means that one method is not necessarily more commonly used than another. These countries still ranked the different methods, so this has some effect on the results.

According to survey, the most common sampling method used for sample unit selection is cut-off sampling, followed by PPS sampling, stratified sampling, and judgmental sampling. Some countries mentioned using random sampling, which was not listed as an option for selection in the survey.

Ranking of sampling methods used for sample unit selection in SPPIs

	1	2	3	4	Not used	Score
Cut-off sampling	47.83% 11	21.74% 5	13.04% 3	0% 0	17.39% 4	3.42
PPS sampling	26.09% 6	8.7% 2	8.7% 2	4.35% 1	52.17% 12	3.18
Stratified sampling	8.7% 2	43.48% 10	13.04% 3	0% 0	34.78% 8	2.93
Judgmental sampling	13.04% 3	8.7% 2	34.78% 8	26.09% 6	17.39% 4	2.11

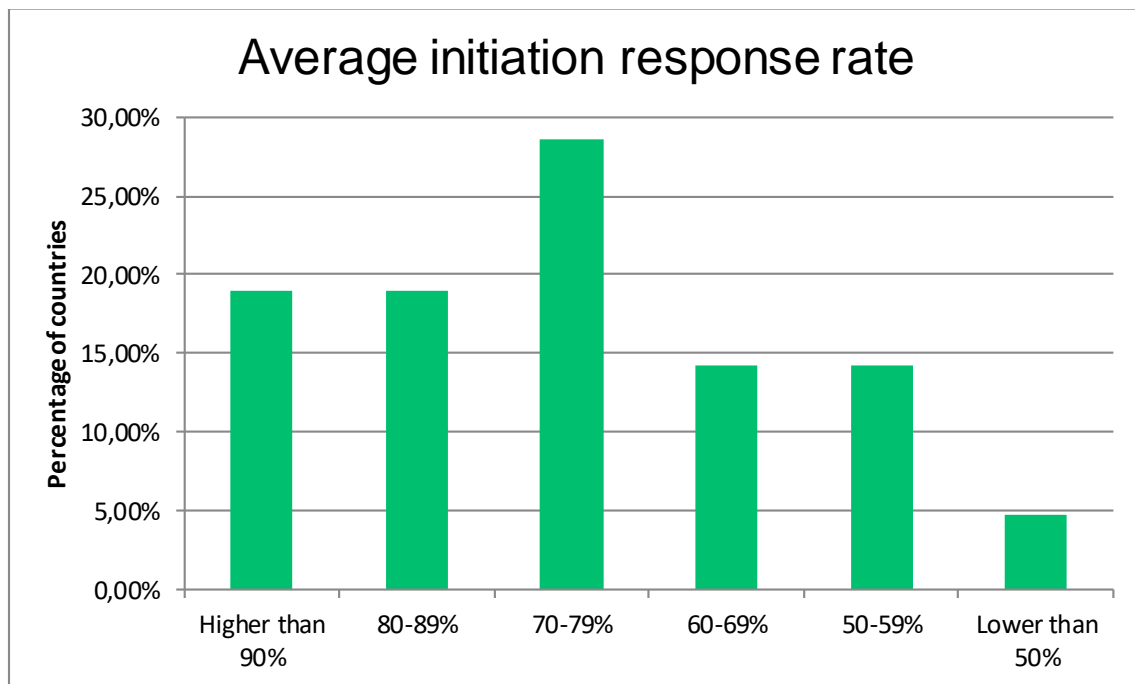
Out of 11 countries which responded that they use the PPS sampling method, ten countries use revenue as a size measurement and one country uses employment as a size measurement. Looking at the same 11 countries, six of them use systematic PPS, two use PPS with replacement, two use PPS without replacement, and one country uses both PPS with and without replacement, with most indices using the latter.

For the selection of services\products within sample units, most countries responded that they select representative services of the selected unit with higher percentage of sales for each service category. Some countries reported using judgmental sampling for the selection of services within sample units.

Six countries reported using an average initiation response rate of 70-79% when determining samples. Four countries use an average initiation response rate of

above 90%. Four countries use an average initiation response rate of 80-89%. Three countries use an average initiation response rate of 60-69%. Three countries use an average initiation response rate of 50-59%, and one country reported using an average initiation response rate lower than 50%. Four out of five countries where the participation in the surveys is voluntary use an average initiation response rate of above 70%.

Countries mentioned using response rate factors such as short term evolution of turnover, non-response rates from previous surveys, analysis of the response rate by industry/generic service, rate of usable specifications analysis and out of scope/out of business/misclassification rates.



5. Issues regarding updating SPPIs

Respondents were asked to rank possible issues that they might be having when updating SPPIs.

The results show that the biggest issue countries are dealing with is the availability of activity and product weight data. The second biggest issue is the quality of activity and product weight data, and the third issue is resources. Next

on the list were respondent burden, frequent changes that demand revision of indices and lastly, compliance with regulations. Other issues countries have that were not listed were as follows: issues regarding updating samples and resources needed to change the sampling method, technology and infrastructure limitations, issues regarding NA use of the data (relevancy of indices, NA need for historic revisions) and issues regarding to the continuity of time series.

Issues regarding updating SPPIs by ranking

	1	2	3	4	5	6	N/A	Score
Availability of activity and product weight data	34.78% 8	21.74% 5	21.74% 5	4.35% 1	4.35% 1	0% 0	13.04% 3	4.9
Quality of activity and product weight data	13.04% 3	43.48% 10	17.39% 4	8.7% 2	0% 0	0% 0	17.39% 4	4.74
Resources	26.09% 6	8.7% 2	21.74% 5	21.74% 5	8.7% 2	0% 0	13.04% 3	4.25
Respondent burden	8.7% 2	17.39% 4	4.35% 1	30.43% 7	17.39% 4	13.04% 3	8.7% 2	3.24
Frequent changes that demand revision of indices	8.7% 2	8.7% 2	26.09% 6	8.7% 2	26.09% 6	13.04% 3	8.7% 2	3.19
Compliance with regulations	8.7% 2	0% 0	0% 0	13.04% 3	13.04% 3	30.43% 7	34.78% 8	2.27

Appendix A.

List of countries that participated in the survey:

Austria
Canada
Chile
Croatia
Denmark
Finland
France
Germany
India
Ireland
Israel
Italy
Japan
Latvia
Mexico
Poland
Republic of Korea
Singapore
Slovakia
Spain
Sweden
United Kingdom
USA