

# Sampling and Weighting in French SPPI

NA, SBS and field engineers-surveyors

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Mesurer pour comprendre



# Sampling – cut-off at 50 enterprises by CPA 4-digits

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1 criterion: production (approached by the turnover).

The sample of producers, determined at CPA 4-digits level from most recent Structural Business Statistics available (usually on year n-2), includes enterprises for which the products are the results of a main or a secondary activity.

For every CPA 4-digits product, enterprises are sorted by decreasing turnover. Cut-off at a threshold of 50 enterprises.

We stop before if cumulated turnover is over:

- 70% and enterprise ranking is over 18 OR
- 80% and enterprise ranking is over 13.

# Sampling – frequency and technique

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Frequency of sampling : theoretically every 5 years for each CPA 4-digits product (in practice between 5 and 6 years).

=> ~ 20% of CPA 4-digits products (re-)sampled every year

-> new list of enterprises

-> new “rebasings” classification (fine products, detail by markets, with or without taxes...)

-> constitution of a “technical file” for each CPA 4-digits product, attributed to one or several “field engineers-surveyors”, who will achieve “visits reports”

-> detailed price series and detailed relative weights come from visits reports (both by fine products and by fine market: BtoB, BtoC, BtoE).

# Weighting – accounting identities from NA

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At aggregated levels, we can read in commodity flows from NA:

## Resources Uses

$$\begin{array}{ccccccc} P & + & M & = & FC & + & IC & + & GFCF & + & X \\ | & & & & | & & \underbrace{\hspace{2cm}} & & & & | \\ \text{BtoAll} & & & & \text{BtoC} & & \text{BtoB} & & & & \text{BtoE} \end{array}$$

In French SPPI, BtoB, BtoC and BtoE indices are aggregated “vertically” (from elementary price series to CPA 4-digits levels, from CPA 4-digits to CPA 3-digits, *etc.*), but BtoAll is obtained by horizontal aggregation (BtoAll = BtoB + BtoC + BtoE) at each level.

# Weighting – compilation of CPA 4-digits levels

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1: Production

2: “Markets” (BtoB, BtoC, BtoE)

Aggregated levels:  
National Accounts  
(production)

Aggregated levels:  
National Accounts  
(uses, additive)

TOP  
DOWN



Fine levels (CPA 4-digits):  
Structural Business Survey  
(turnover)

Fine levels (CPA 4-digits):  
Structural Business Survey  
(information on kinds of customers)

BREAKDOWN



# Services (other than transport) SBS questionnaire

Detailed products      Services sales      Product code ~ CPA 6-digits      Amount in €

Produits détaillés	Code produit	% ou montants en euros
<b>ACTIVITÉS INFORMATIQUES</b>		
• Infogérance, gestion d'installations informatiques		
◆ Prise en charge de la fonction informatique (facilities management, infogérance).....	6203Z10	<input type="text"/>
◆ Gestion et assistance des centres informatiques du client (gérance d'exploitation).....	6203Z21	<input type="text"/>
◆ Secours informatiques (back up).....	6209Z20	<input type="text"/>
◆ Tierce maintenance de systèmes et d'applications informatiques.....	6202B00	<input type="text"/>
◆ Mise à disposition de matériels et réseaux informatiques (y compris serveurs et hébergement de sites Internet, non compris la location de matériels).....	6311Z21	<input type="text"/>

by kind of customers

Répartition du chiffre d'affaires	%
Entreprises du groupe <sup>1</sup> auquel vous appartenez	Intragroup BtoB
Entreprises hors du groupe auquel vous appartenez (y compris entreprises publiques : SNCF, EDF)	BtoB
Administrations (y compris collectivités locales, hôpitaux...)	(GG) BtoB
Particuliers, hors services rendus à leur domicile (y compris associations, syndicats de copropriétés,...)	BtoC
Particuliers, services rendus à leur domicile	BtoC
TOTAL	100%

Turnover breakdown

Répartition du chiffre d'affaires	%
Cliantèle nationale	domestic
Union européenne	EU
Hors Union européenne	non-EU
TOTAL	100%

by country

# Weighting – determination at enterprise x CPA4 level, then addition at CPA 4 level

Household	20
Enterprise	80
<b>Total turnover</b>	<b>100</b>

$$15 = 20 * 75 / 100$$

	Household	Enterprise	Total
France	15	60	75
European Union	2	8	10
Outside the European Union	3	12	15
<b>Total turnover</b>	<b>20</b>	<b>80</b>	<b>100</b>

France	75
European Union	10
Outside the European Union	15
<b>Total turnover</b>	<b>100</b>

B to C

B to E

B to B

# Transport services

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For freight transport services, the criterion is not the residence country of the customer but, consistently with National Accounts, the fact that the transport is “international” (either the origin or the destination is abroad => BtoE), or “national” (=> BtoB).

Anyway, National Accounts are very detailed for these products, therefore SBS are useless.



# Weighting at enterprise x CPA4 x market level

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In spite of the fact that an automatic calculation has determined *a priori* weights for each combination enterprise x CPA4 x market level (BtoB, BtoC, BtoE), the visits reports will really fix the relative weights within the combination CPA4 x market level.

Papaye software makes the weights additive top-down until the elementary price indices.

# Rebasing visit report - extract

Weights of elementary price series (before forced additivity)



**Direction des statistiques d'entreprises**  
 Département des statistiques de court terme  
 Division des Indices des prix à la production

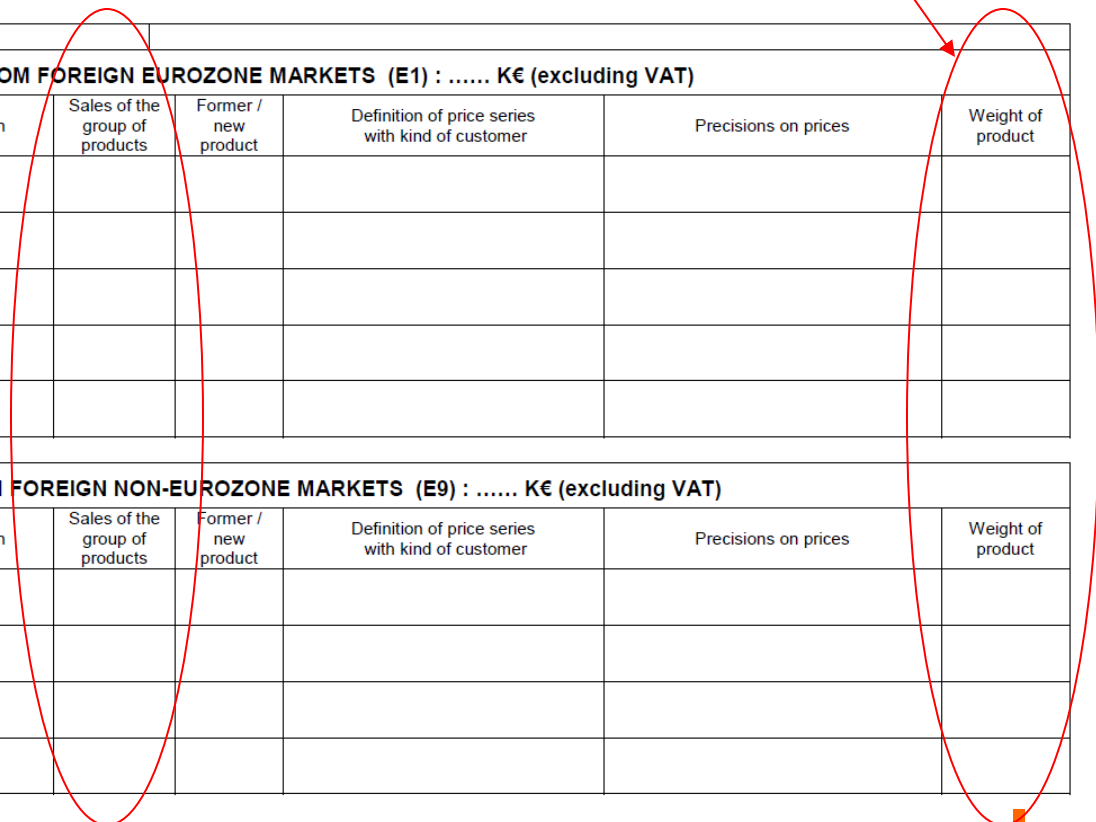
CPF .... - ..... Foreign markets : transactions sampled

**TURNOVER FROM FOREIGN EUROZONE MARKETS (E1) : ..... K€ (excluding VAT)**

N°	Data collection classification (code)	Heading of data collection classification	Sales of the group of products	Former / new product	Definition of price series with kind of customer	Precisions on prices	Weight of product

**TURNOVER FROM FOREIGN NON-EUROZONE MARKETS (E9) : ..... K€ (excluding VAT)**

N°	Data collection classification (code)	Heading of data collection classification	Sales of the group of products	Former / new product	Definition of price series with kind of customer	Precisions on prices	Weight of product



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## Thank you for your attention !

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