

APPENDICES

Appendix 1 : Marketing channels and category of products sold according 2010 and 2020 agricultural census

Products sold a grouped into 7 categories in 2010 and 10 categories in 2020 which are :

- **Dairy** products (milk, butter, yoghurt, cheese, cream...)
- **Eggs, poultry**
- **Honey** and honey products
- Meat excluding poultry, **other animal products**
- Fresh and processed **vegetables**, potatoes
- Fresh and processed **fruits**
- **Others**; that are divided in 2020 into :
 - **Cereal, oilseed and protein products** (grains, other processed products: milling, bread, pasta, beer, consumer oils...)
 - **Olives**, olive oil
 - **Other plant products**, flowers, horticulture
- And for 2020 only , **Wine**, grape from table, spirits from wines

SFSCs marketing channels are the following:

On-farm direct-to-consumer sales (ON)

- Far: Direct farm sales (on-farm sales space, pick-your-own, farm or roadside markets, etc.)

Off-farm direct-to-consumers sales (OFF)

- CPS (collective point of sale) Direct sales through collective outlets (e.g. producers' stores)
- Mar = Direct sales at markets/halls
- CSA= Direct sales in the context of community supported agriculture (baskets)
- TH = Direct sales on tour, at home (excluding CSA)
- Mail = Internet or mail-order sales (distinguishing in 2020 : Sales via a farm website / Sales via an online ordering platform/ Other mail-order sales)
- SF = Sales at trade shows and fairs

Intermediated sales (IS, maximum one intermediary)

- CollC= Sales to institutional caterers (collective catering)
- ComC= Sales to restaurants (commercial catering excluding institutional catering)
- Ret =Sales to retailers (butchers, greengrocers, local grocers, etc.)
- LMS= Sales to distributors (supermarkets and hypermarkets = large and medium surfaces)

In 2010, up to 3 MCs can be indicated in decreasing order of share of turnover, In the 2020's census, farmers can indicate all the MCs they use (even if more than 3) but we have no indication of their relative importance in the total sales of the farms.

Subset 2020 : 88509 farms including 61867 in metropolitan France including 15228 using SPFC (if sell wine in SFSC it is not the only product sold in SFSC). Among those 15228 farms, 9273 sell at least one category of product through « long » marketing channel which gives 6255 farms using SFSC only.

Appendix 2 : Complements on methodology

Measures of association

To study possible links between the variables, we use the Pearson's phi coefficient. Unlike Pearson's Chi² (and like Cramer's V), this indicator remains stable if the sample size is increased in the same proportions between variables, and is therefore more suitable when the number of individuals is high. Moreover, unlike the Chi-square, the Pearson's phi provides information on the intensity of the relationship between variables: the closer the Pearson's phi is to 1, the stronger the relationship. Finally, since the variables are coded 0/1, it is possible to distinguish whether the association between them is positive or negative, since it takes on a value between -1 and 1¹.

For ordinal variables, Kendall's tau-c coefficient is considered

Specificity index

When crossing qualitative variables, the choice to analyze specificity indices rather or in addition to frequencies is justified because of the "size effect" encountered in the analysis of the latter. Indeed, if we intersect a categorical variable in which each category i ($i=1, \dots, M$) includes a number $x_{i..}$ of individuals (here farms) and another categorical variable of which each category j ($j=1, \dots, N$) comprises a number $x_{.j}$ of individuals (here other farms), we obtain for each cell of the cross table a count x_{ij} . If the number in a given cell i, j of the table is high, this may be due to the fact that category i of the first variable (all categories of the second combined) and/or category j of the second variable (all categories of the first variable combined) has a high number.

For example, if the first variable designates the fact of achieving a low, medium or high share of its turnover in short circuit (i = zero, low, medium, high) and the second designates the type of territory (j = urban, peri-urban, rural) then if the rural area has a very high number of farms, there is a good chance that the number of farms heavily involved in SFSCs will also be very high. This does not necessarily stem from a "specialization" of farms in the rural area in a strong involvement in short circuits (or in other words a concentration of farms strongly involved in short circuits in rural areas) but is perhaps just due to a "size" effect (it is because the rural territory has many farms that it also has many farms that are strongly involved in the short circuit). The specificity index makes it possible to take this "size" effect into account by comparing, via a ratio, the "contribution" of rural farms (heavily involved in CC) to the number of farms strongly involved in CC, $x_{high, rural} / x_{high, .}$ (with $x_{high, .}$ the sum over j of $x_{raised, j}$) to the "contribution" of rural farms to all French farms, $x_{.rural} / x_{.}$ (with $x_{.rural}$ the sum over i of $x_{i, rural}$ and $x_{.}$ all farms). The calculation of the specificity index is then:

¹ Indeed, the value of the Pearson's Phi coefficient between 2 variables with modalities 0 and 1 is:

$$\Phi = \frac{n_{00} * n_{11} - n_{01} * n_{10}}{\sqrt{(n_{00} + n_{01}) * (n_{10} + n_{11}) * (n_{00} + n_{10}) * (n_{01} + n_{11})}} \text{ and } |\Phi| = \left| \sqrt{\frac{\chi^2}{n}} \right|$$

With n_{ij} the number of observations for which the first variable takes the value i ($i = \{0, 1\}$) and the second the value j ($j = \{0, 1\}$).

$$S_{high, rural} = \frac{x_{\text{élevée,rural}}/x_{\text{élevée}}}{x_{\text{,rural}}/x_{\text{,}}} (1);$$

which is also equal to

$$S_{high, rural} = \frac{x_{\text{élevée,rural}}/x_{\text{,rural}}}{x_{\text{élevée,}}/x_{\text{,}}} (2) ;$$

which makes it possible to compare the contribution of (rural) farms heavily involved in SFSCs (numerator of (2)) to the number of farms in rural areas with the contribution of farms heavily involved in SFSCs to the total number of farms (denominator of (2)).

If the ratio obtained is greater than 1, this means that the rural space is indeed specialized in the strong implications in short circuits (in other words, the farms strongly involved in the short circuits are concentrated in the rural space) whereas if it is less than one, this means on the contrary that the rural area “contributes” relatively less to the total number of farms heavily involved in SFSCs than it contributes to the total number of farms.

Note that if none of the categorical variables that we cross reFar to a space (for example if we cross the fact of selling in a short circuit with the technical and economic orientation of the farm), as is the case in our analyses, then the term “specialization” or “concentration” can be used interchangeably (the same applies to their respective opposites, ie “diversification” and “dispersion”).

Isard index

The analysis and in particular the comparison of the specificity indices make it possible to assess whether a type of space specializes more in certain activities than in others (or whether certain activities are concentrated more in certain spaces than others) but not allow us to say whether globally a type of space is specialized or diversified or whether globally an activity is concentrated or dispersed.

Moreover, when the number of categories studied increases, analyzing/comparing a large number of specificity indices can prove to be tricky. For this reason, when we deem it necessary/relevant, we use the calculation of the Isard indices of specialization and concentration.

The isard index of concentration of an activity *i* (for example the activity “getting strongly involved in CC) is:

$$IS_i = \sum_{j=1}^J \left| \frac{x_{i,j}}{x_{i,}} - \frac{x_{,j}}{x_{,}} \right| = \sum_{j=1}^J \frac{x_{,j}}{x_{,}} |s_{i,j} - 1|$$

with $x_{i,j}$ = the value of the aggregate (e.g. the number of farms) studied for activity *i* (e.g. is heavily involved in CC) in region *j*;

$x_{i,} = \sum_{j=1}^J x_{i,j}$ the value of the aggregate (for example the number of farms) studied for activity *i* (for example is heavily involved in CC) all regions combined ($j = \{1, \dots, J\}$ for example $j = \{\text{urban, peri-urban, rural}\}$);

$x_{,j} = \sum_{i=1}^I x_{i,j}$, the value of the aggregate (for example the number of farms) in region *j* (for example $j = \text{“rural”}$), all activities (for example all levels of SFSCs involvement) combined ($i = \{1, \dots, I\}$ e.g. $i = \{1, 2, 3\}$);

$x_{,}$, the total number of farms considered;

$s_{i,j}$, the specificity index for activity *i* and region *j* (cf. (1)).

As a corollary, the Isard index of specialization of a type of space j (for example rural space) is:

$$IS_j = \sum_{i=1}^I \left| \frac{x_{i,j}}{x_{.,j}} - \frac{x_{i,.}}{x_{.,.}} \right| = \sum_{i=1}^I \frac{x_{i,.}}{x_{.,.}} |s_{i,j} - 1|$$

The value of the Isard index of concentration of activity i is equal to 0 if the activity is dispersed as much as possible; it is equal to 1 if the activity is concentrated in a single region and takes intermediate values for intermediate concentration levels. The more a value close to 1 is observed, the more the activity is concentrated and the specificity indices then inform us about the regions in which they are concentrated. Respectively, the value of the Isard index of specialization of region j is equal to 0 if the region is maximally diversified; it is equal to 1 if the region is specialized in a single activity and takes intermediate values for intermediate levels of specialization. The more we observe a value close to 1, the more the region is specialized and the specificity indices then inform us about the activities in which they specialize. The greater the disparities observed between the reference distribution (for example the distribution of farms between urban, peri-urban and rural areas) and the distribution being studied (for example the distribution over these areas of farms heavily involved in CC) , the more high values of the Isard index are observed. Here too, when the distributions studied do not relate to different types of spaces but to other categories (technico-economic orientation of the operation, etc.) , as is the case in our analyses, we can speak indiscriminately of concentration or specialization (respectively dispersion or diversification).

Appendix 3: relative importance, combinations and association of marketing channels

	% of farms selling in SFSCs and having this MC as...	...1st MC in SFSCs	...2nd MC in SFSCs	...3rd MC in SFSCs
Marketing channel	Far	49.83	13.08	3.92
	CPS	5.3	3.23	1.37
	Mar	18.9	8.17	1.64
	TH	5.64	3.15	1.11
	Mail	0.46	0.79	0.72
	CSA	1.72	1.57	0.78
	SF	0.68	1.51	1.16
	ComC	0.81	1.64	1.38
	ColC	0.26	0.56	0.49
	Ret	12.7	6.61	3
	LMS	3.69	1.93	1.14
	Total	100	100	100

Tableau 1. Number of farms (in % of farms selling in CC) according to their 1st, 2nd or 3rd mode of sale in SFSCs in 2010

Fifteen most frequents combination of MC (among the 3 most important in terms of sales in 2010) in SFSC in 2010 and 2020):

2010			2020		
Combination of MC	Number of farms	In % of the 67551 farms selling in SFSC	Combination of MC	Number of farms	In % of the 73809 farms selling in SFSC
Far	22106	32,72%	Far	17689	23,97%
Ret	5898	8,73%	Ret	5528	7,49%
Far_Mar	5617	8,32%	Mar	5304	7,19%
Mar	4927	7,29%	Far_Mar	3191	4,32%
Far_Ret	3087	4,57%	TH	3151	4,27%
TH	2283	3,38%	CPS	1946	2,64%
CPS	1823	2,70%	LMS	1786	2,42%
Far_TH	1583	2,34%	Far_Ret	1663	2,25%
Far_Mar_Ret	1444	2,14%	Mail	1309	1,77%
Far_CPS	1431	2,12%	FAR_CPS	970	1,31%
Far_CPS_Mar	1009	1,49%	FAR_Mail	908	1,23%
LMS	925	1,37%	FAR_TH	843	1,14%
Far_LMS	766	1,13%	RET_LMS	812	1,10%
Far_Mar_TH	618	0,91%	FAR_LMS	688	0,93%

Preliminary version – Document formatting to be improved by November 2023

Mar_Ret	550	0,81%	Far_CPS_Mar	581	0,79%
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Far= sale at the farm, CPS= sale at collective point(s), Mar= sale at Markets, TH= sale on tour(s) and/or at home, mail= sale by mail order, bas = sales in baskets, SF= sale at shows and fairs, ComC= sale to commercial catering, ColC = sale to collective catering, Ret= sale to retailers, LMS= sale to large and/or medium-sized surfaces.

Pearson's Phi coefficient of association between marketing channels in 2010 and 2020

2010	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS
Far	-0,12	-0,14	-0,16	0,01	-0,07	0,02	-0,02	-0,03	-0,28	-0,09
CPS	NA	-0,01	-0,05	-0,01	0	0	-0,02	-0,01	-0,09	-0,02
Mar	NA	NA	-0,07	0	0,06	0,04	0,01	-0,01	-0,12	-0,03
TH	NA	NA	NA	0	-0,01	-0,02	-0,02	-0,01	-0,09	-0,05
Mail	NA	NA	NA	NA	-0,01	0,1	0	-0,01	-0,04	-0,02
CSA	NA	NA	NA	NA	NA	-0,01	0	0,06	-0,04	-0,02
SF	NA	NA	NA	NA	NA	NA	-0,01	-0,01	-0,02	-0,02
ComC	NA	NA	NA	NA	NA	NA	NA	0,03	0,02	0,05
ColC	NA	NA	NA	NA	NA	NA	NA	NA	0	0,04
Ret	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03

2020	PVC	MAR	TD	COR	PAN	SF	RCOM	RCOL	DET	GMS
FER	0	-0,05	-0,12	0,07	0,04	0,08	0,11	0,07	-0,1	-0,04
PVC	NA	0,12	0	0,15	0,17	0,14	0,18	0,16	0,09	0,09
MAR	NA	NA	-0,04	0,09	0,14	0,16	0,13	0,08	0	0
TD	NA	NA	NA	0,08	0,04	0,04	0,08	0,05	-0,01	-0,03
Mail	NA	NA	NA	NA	0,13	0,25	0,21	0,15	0,12	0,09
PAN	NA	NA	NA	NA	NA	0,07	0,15	0,16	0,08	0,07
SF	NA	NA	NA	NA	NA	NA	0,18	0,07	0,13	0,08
RCOM	NA	NA	NA	NA	NA	NA	NA	0,31	0,3	0,23
RCOL	NA	NA	NA	NA	NA	NA	NA	NA	0,18	0,22
DET	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,21

Appendix 4: Share of sales and number of MC in SFSC

Distribution of farms according their share of sales and number of MC in SFSC in 2010 (In % of the number of farm having this number of MC in SFSC), specificity and Isard indexes, Pearson's phi coefficients and Kendal's tau C index:

share of sales in SFSC →		Frequencies (Row %)					Specificity ans Isard index					Pearson's phi coefficients			
		]0-10]	]10-50]	]50-75]	]75-100]	Total row	]0-10]	]10-50]	]50-75]	]75-100]	Isard↓	]0-10]	]10-50]	]50-75]	]75-100]
<i>Number of MC in SFSCs</i>	1	41,78	18,99	6,45	32,78	100	1.35	0.92	0.75	0.83	0.22	0.27	-0.05	-0.09	-0.17
	2	20,33	23,29	10,33	46,05	100	0.66	1.12	1.20	1.16	0.21	-0.14	0.04	0.04	0.08
	3 or +	10,16	22,65	13,19	54,00	100	0.33	1.09	1.54	1.36	0.42	-0.20	0.02	0.07	0.13
	Total	30,98	20,72	8,57	39,73	100	0.40	0.10	0.28	0.20	←ISARD	$\tau_c = 0.2276267$; p-value <2.2e-16			

Appendix 5: Share of sales and MC or Type of MC in SFSC

Distribution of farms according their share of sales and MC in SFSC: frequencies (in % of farms using this MC), specificity and Isard indexes and Pearson's phi coefficients :

	share of sales in SFSC →	Frequencies (Row%)					Specificity ans Isard index					Pearson's phi coefficients				
		]0-10]	]10-50]	]50-75]	]75-100]	Total row	]0-10]	]10-50]	]50-75]	]75-100]	ISARD↓		]0-10]	]10-50]	]50-75]	]75-100]
MC or MC types	Far	34,58	20,94	8,39	36,09	100	1.12	1.01	0.98	0.91	0.08	b	0.11	0.01	-0.01	-0.11
	CPS	17,62	21,06	11,21	50,11	100	0.57	1.02	1.31	1.26	0.27	h	-0.1	0	0.03	0.07
	Mar	12,99	20,06	10,67	56,29	100	0.42	0.97	1.24	1.42	0.37	h	-0.25	-0.01	0.05	0.21
	TH	29,09	25,74	9,40	35,78	100	0.94	1.24	1.10	0.90	0.12	I	-0.01	0.04	0.01	-0.03
	Mail	14,24	22,94	12,22	50,60	100	0.46	1.11	1.43	1.27	0.33	h	-0.05	0.01	0.02	0.03
	CSA	9,64	14,91	10,33	65,11	100	0.31	0.72	1.21	1.64	0.54	h	-0.1	0.03	0.01	0.11
	SF	14,76	19,10	11,84	54,30	100	0.48	0.92	1.38	1.37	0.36	h	-0.07	0.01	0.02	0.06
	ComC	17,71	24,48	11,41	46,40	100	0.57	1.18	1.33	1.17	0.27	h	-0.06	0.02	0.02	0.03
	RCol	25,37	26,05	8,83	39,75	100	0.82	1.26	1.03	1.00	0.11	I	-0.01	0.02	0	0
	Ret	22,11	23,07	10,99	43,83	100	0.71	1.11	1.28	1.10	0.18	h	-0.1	0.03	0.05	0.04
	LMS	15,66	25,47	12,24	46,63	100	0.51	1.23	1.43	1.17	0.31	h	-0.09	0.03	0.04	0.04
							0.47	0.11	0.26	0.30	←ISARD					

Distribution of farms according their share of sales and type of MC in SFSC: frequencies (in % of farms using this type), specificity and Isard indexes and Pearson's phi coefficients :

	share of sales in SFSC →	Frequencies (Row %)					Specificity ans Isard index					Pearson's phi coefficients				
		]0-10]	]10-50]	]50-75]	]75-100]	Total Row	]0-10]	]10-50]	]50-75]	]75-100]	ISARD↓		]0-10]	]10-50]	]50-75]	]75-100]
Type of MC	ON	34,58	20,94	8,39	36,09	100	1.12	1.01	0.98	0.91	0.08		0.11	0.01	-	-
	OFF	18,00	21,19	10,27	50,53	100	0.58	1.02	1.20	1.27	0.26		-0.27	0.01	0.06	0.21
	IS	21,30	23,50	11,10	44,11	100	0.69	1.13	1.29	1.11	0.19		-0.14	0.05	0.06	0.06
							0.37	0.06	0.20	0.22	←ISARD					

Appendix 6: Share of sales and combination of type of MC in SFSC

Distribution of farms according the share of sales and combination of MC types in SFSC: frequencies (in % of farms using this combination of type of MC in SFSC), specificity and Isard indexes and Pearson's phi coefficients.

		Frequencies (Row %)					Specificity ans Isard index					Pearson's phi coefficients			
		]0-10]	]10-50]	]50-75]	]75-100]	Total Row	]0-10]	]10-50]	]50-75]	]75-100]	<i>ISARD</i>↓	]0-10]	]10-50]	]50-75]	]75-100]
Columns: combination of types of MC	ONO	52,17	17,85	5,18	24,81	100	1.68	0.86	0.60	0.62	0.42	0.32	-0.05	-0.08	-0.21
	OFFO	22,77	18,63	7,95	50,65	100	0.73	0.90	0.93	1.27	0.22	-0.08	-0.02	-0.01	0.1
	ON+OFF	17,95	22,96	10,82	48,27	100	0.58	1.11	1.26	1.21	0.26	-0.14	0.03	0.04	0.09
	ISO	30,31	23,22	9,20	37,27	100	0.98	1.12	1.07	0.94	0.06	-0.01	0.02	0.01	-0.02
	ON+IS	22,87	25,91	11,33	39,90	100	0.74	1.25	1.32	1.00	0.16	-0.05	0.04	0.03	0
	OFF+IS	11,48	19,03	11,82	57,67	100	0.37	0.92	1.38	1.45	0.42	-0.09	-0.01	0.03	0.08
	ON+OFF+IS	9,96	24,30	13,78	51,96	100	0.32	1.17	1.61	1.31	0.42	-0.12	0.02	0.05	0.06
	total	30,98	20,72	8,57	39,73	100	0.45	0.13	0.28	0.26					

Appendix 7: Share of sales and number of categories of products sold in SFSC

Distribution of farms according the number of categories of products and the share of sales in SFSC: frequencies (in % of farms selling this number of categories of products in SFSC), specificity and Isard indexes, Pearson's phi coefficients and Kendall's Tau c.

	Share of sales in SFSC	Frequencies (Row %)					Specificity ans Isard index					Pearson's phi coefficients			
		]0-10]	]10-50]	]50-75]	]75-100]	Total row	]0-10]	]10-50]	]50-75]	]75-100]	Isard↓	]0-10]	]10-50]	]50-75]	]75-100]
Number of product categories sold in SFSC	1	33,93	20,27	7,90	37,90	100	1.10	0.98	0.92	0.95	0.06	0,15	0,03	0,05	0,09
	2	16,82	22,97	11,59	48,62	100	0.54	1.11	1.35	1.22	0.28	0,12	0,02	0,04	0,07
	3 ou +	9,05	23,57	14,51	52,87	100	0.29	1.14	1.69	1.33	0.44	0,08	0,01	0,04	0,04
	Total	30,98	20,72	8,57	39,73	100	0.16	0.04	0.13	0.08	←ISARD	Kendall's $\tau_c = 0.07$ p-value= 1.5.10 ⁻²⁹⁸			

Appendix 8 : Share of sales and categories of products sold in SFSC

Distribution of farm according their share of sales and categories of products sold in SFSC: frequencies (in % of farms selling this category in SFSC), specificity and Isard indexes and Pearson's phi coefficients

categories of product sold in SFSC↓	Frequencies (Rows %)					Specificity and Isard index					**	Pearson's phi coefficients			
	]0-10]	]10-50]	]50-75]	]75-100]	Total row	]0-10]	]10-50]	]50-70]	]75-100]	Isard		]0-10]	]10-50]	]50-75]	]75-100]
Dairy	25,39	22,70	10,91	41,00	100	0.82	1.10	1.27	1.03	0.11	high	-0.04	0.02	0.03	0.01
Eggs and poultry	26,18	25,29	10,57	37,97	100	0.84	1.22	1.23	0.96	0.13	Mid/Low	-0.04	0.04	0.03	-0.01
Other animal products	38,63	23,06	8,39	29,92	100	1.25	1.11	0.98	0.75	0.20	low	0.12	0.04	0	-0.14
Vegetables	19,57	18,82	9,30	52,32	100	0.63	0.91	1.09	1.32	0.27	high	-0.13	-0.02	0.01	0.13
Fruits	23,31	21,18	10,13	45,38	100	0.75	1.02	1.18	1.14	0.15	high	-0.06	0	0.02	0.04
Honey	16,81	12,57	8,03	62,59	100	0.54	0.61	0.94	1.58	0.46	high	-0.1	-0.06	-0.01	0.15
Others	31,51	20,60	8,64	39,25	100	1.02	0.99	1.01	0.99	0.01	low	0.01	0	0	0
						0.28	0.13	0.11	0.23	←ISARD					

** = Specialization towards a share of turnover in SFSC that is...

Appendix 9 Type of MC and category of products in SFSC in 2010 and 2020

Distribution of farms according their type of MC and the categories of products sold in SFSC: frequencies (in % of farms using this type), specify and Isard indexes and Pearson's phi coefficients:

	2010 :			2020			Difference % 2020 - % 2010		
	ON	OFF	IS	OFF	IS	ON	OFF	IS	
Frequencies (columns %)									
Dairy	12,47	14,20	15,91	13,23	12,04	15,00	0,76	-2,17	-0,91
Eggs and poultry	14,06	14,49	7,98	12,64	12,88	8,75	-1,42	-1,60	0,77
Other animal products	32,49	21,93	38,13	31,93	28,80	34,48	-0,57	6,87	-3,65
Vegetables	17,23	30,46	18,87	24,53	28,34	25,22	7,30	-2,12	6,36
Fruits	11,49	16,68	12,79	14,87	15,86	16,03	3,38	-0,81	3,24
Honey	10,52	9,88	8,48	7,71	8,37	9,22	-2,81	-1,51	0,75
Others	22,36	19,78	16,59	24,11	22,87	18,43	1,74	3,09	1,84

Pearson's Phi coefficient	2010			2020		
	ON	OFF	IS	ON	OFF	IS
Dairy	0,05	0,08	0,09	0,11	0,05	0,13
Eggs and poultry	0,09	0,08	-0,08	0,09	0,08	-0,05
Other animal products	-0,03	-0,24	0,06	-0,07	-0,12	0
Vegetables	-0,13	0,22	-0,04	-0,02	0,07	0
Fruits	-0,05	0,12	0,00	0,03	0,05	0,05
Honey	0,07	0,03	-0,01	0,03	0,05	0,07
Others	0,10	0,01	-0,05	0,07	0,03	-0,07

Specify and Isard indexes	2010				2020			
	ON	OFF	IS	Isard	ON	OFF	IS	isard
Dairy	1,09	1,24	1,39	0,30	1,26	1,15	1,43	0,41
Eggs and poultry	1,18	1,21	0,67	0,32	1,22	1,24	0,84	0,31
Other animal products	0,97	0,65	1,14	0,23	0,92	0,83	0,99	0,13
Vegetables	0,82	1,44	0,89	0,37	0,98	1,13	1	0,08
Fruits	0,91	1,32	1,01	0,22	1,07	1,14	1,15	0,17
Honey	1,15	1,08	0,93	0,16	1,08	1,17	1,29	0,25
Others	1,15	1,02	0,85	0,15	1,12	1,06	0,85	0,16
Isard	0,14	0,31	0,19		0,12	0,18	0,14	

Appendix 11 MC and category of products sold in SFSC in 2010 and 2020

2020 rows %	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	
Dairy	75,69	29,13	49,12	13,67	17,32	14,41	8,25	32,83	14,38	46,21	25,62	
Eggs and poultry	73,18	21,28	43,61	15,19	17,66	14,24	5,63	19,21	9,81	24,82	13,31	
Other animal products	55,28	12,59	14,46	19,73	13,73	5,75	4,68	10,55	4,83	31,68	9,98	
Vegetables	58,61	15,90	45,60	7,27	12,40	13,45	3,24	17,76	9,48	24,13	17,48	
Fruits	64,13	22,23	43,26	8,71	16,49	12,52	9,54	18,38	8,83	33,60	19,32	
Honey	64,95	22,66	43,49	11,37	22,30	10,42	18,10	13,38	4,35	43,81	21,42	
Others	54,96	12,58	23,05	7,16	16,90	4,15	11,70	11,36	2,25	19,52	10,84	
Using this MC	60,05	16,92	30,45	12,59	14,76	8,62	7,07	14,45	6,35	29,81	15,11	
2020 column %	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	<i>Selling this categ in SFSC</i>
Dairy	13,23	18,07	16,93	11,39	12,32	17,54	12,25	23,84	23,78	16,27	17,80	10,50
Eggs and poultry	12,64	13,04	14,85	12,51	12,41	17,13	8,26	13,78	16,03	8,64	9,14	10,37
Other animal products	31,93	25,81	16,47	54,33	32,26	23,12	22,96	25,31	26,38	36,86	22,92	34,68
Vegetables	24,53	23,61	37,64	14,51	21,12	39,21	11,52	30,89	37,52	20,35	29,08	25,14
Fruits	14,87	18,30	19,79	9,63	15,56	20,23	18,80	17,71	19,38	15,70	17,81	13,93
Honey	7,71	9,54	10,18	6,43	10,77	8,61	18,24	6,60	4,89	10,48	10,11	7,13
Others	20,38	16,55	16,85	12,65	25,50	10,72	36,85	17,50	7,90	14,58	15,97	22,27
spé 2020	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	<i>IS</i>
Dairy	1,26	1,72	1,61	1,09	1,17	1,67	1,17	2,27	2,27	1,55	1,70	1,10
Eggs and poultry	1,22	1,26	1,43	1,21	1,20	1,65	0,80	1,33	1,55	0,83	0,88	0,58
Other animal products	0,92	0,74	0,47	1,57	0,93	0,67	0,66	0,73	0,76	1,06	0,66	0,51
Vegetables	0,98	0,94	1,50	0,58	0,84	1,56	0,46	1,23	1,49	0,81	1,16	0,48
Fruits	1,07	1,31	1,42	0,69	1,12	1,45	1,35	1,27	1,39	1,13	1,28	0,49
Honey	1,08	1,34	1,43	0,90	1,51	1,21	2,56	0,93	0,69	1,47	1,42	0,69
Others	0,92	0,74	0,76	0,57	1,15	0,48	1,66	0,79	0,35	0,65	0,72	0,55
<i>IS</i>	0,12	0,33	0,56	0,48	0,19	0,59	0,60	0,41	0,62	0,27	0,37	
PHI 2020	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	
Dairy	0,11	0,11	0,14	0,01	0,02	0,07	0,02	0,18	0,11	0,12	0,1	
Eggs and poultry	0,09	0,04	0,1	0,03	0,03	0,07	-0,02	0,05	0,05	-0,04	-0,02	
Other animal products	-0,07	-0,08	-0,25	0,16	-0,02	-0,07	-0,07	-0,08	-0,05	0,03	-0,1	
Vegetables	-0,02	-0,02	0,19	-0,09	-0,04	0,1	-0,09	0,05	0,07	-0,07	0,04	
Fruits	0,03	0,06	0,11	-0,05	0,02	0,06	0,04	0,04	0,04	0,03	0,05	
Honey	0,03	0,04	0,08	-0,01	0,06	0,02	0,12	-0,01	-0,02	0,08	0,05	
Others	0,09	-0,01	-0,01	-0,05	0,08	-0,06	0,14	0	-0,07	-0,05	-0,02	

2010 rows%	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	
Dairy	72,94	14,20	40,86	9,96	0,66	4,57	2,45	8,59	2,37	29,21	11,32	
Eggs and poultry	78,76	9,21	41,81	11,04	2,56	5,35	3,30	4,02	1,51	13,57	5,00	

Other animal products	64,68	7,16	11,05	13,07	1,76	2,85	1,94	2,11	0,93	30,27	3,03	
Vegetables	54,59	10,60	53,33	5,50	0,82	10,62	1,75	4,65	2,18	15,08	9,33	
Fruits	60,83	15,31	43,97	5,90	1,13	6,13	3,51	3,42	1,85	19,54	9,81	
Honey	77,08	11,53	32,32	9,56	2,13	2,30	7,28	1,27	0,41	21,80	7,66	
Others	76,77	11,17	25,51	10,58	4,14	2,81	6,83	5,56	1,32	17,17	6,17	
Using this MC	66,84	9,91	28,72	9,89	1,97	4,07	3,34	3,83	1,31	22,31	6,76	
2010 column %	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	<i>Selling this categ in SFSC</i>
Dairy	12,47	16,38	16,26	11,51	3,82	12,84	8,38	25,64	20,72	14,97	19,14	11,43
Eggs and poultry	14,06	11,09	17,37	13,32	15,44	15,68	11,79	12,53	13,82	7,26	8,83	11,93
Other animal products	32,49	24,27	12,92	44,37	29,99	23,50	19,50	18,48	23,90	45,57	15,07	33,58
Vegetables	17,23	22,57	39,17	11,73	8,77	55,04	11,04	25,60	35,22	14,26	29,13	21,09
Fruits	11,49	19,52	19,34	7,53	7,20	19,03	13,25	11,29	17,89	11,06	18,33	12,63
Honey	10,52	10,63	10,27	8,81	9,82	5,17	19,90	3,02	2,83	8,92	10,34	9,12
Others	22,36	21,95	17,29	20,83	40,85	13,42	39,80	28,27	19,71	14,99	17,76	19,47
spé 2010	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	<i>IS</i>
Dairy	1,09	1,43	1,42	1,01	0,33	1,12	0,73	2,24	1,81	1,31	1,68	0,43
Eggs and poultry	1,18	0,93	1,46	1,12	1,29	1,31	0,99	1,05	1,16	0,61	0,74	0,40
Other animal products	0,97	0,72	0,38	1,32	0,89	0,70	0,58	0,55	0,71	1,36	0,45	0,42
Vegetables	0,82	1,07	1,86	0,56	0,42	2,61	0,52	1,21	1,67	0,68	1,38	0,63
Fruits	0,91	1,55	1,53	0,60	0,57	1,51	1,05	0,89	1,42	0,88	1,45	0,41
Honey	1,15	1,16	1,13	0,97	1,08	0,57	2,18	0,33	0,31	0,98	1,13	0,27
Others	1,15	1,13	0,89	1,07	2,10	0,69	2,04	1,45	1,01	0,77	0,91	0,29
IS	0,14	0,27	0,59	0,28	0,55	0,66	0,59	0,51	0,47	0,33	0,46	
	Far	CPS	Mar	TH	Mail	CSA	SF	ComC	ColC	Ret	LMS	
Dairy	0,05	0,05	0,1	0	-0,03	0,01	-0,02	0,09	0,03	0,06	0,07	
Eggs and poultry	-0,09	0,01	-0,11	-0,01	-0,02	-0,02	0	0	-0,01	0,08	0,03	
Other animal products	0,03	0,07	0,28	-0,08	0,01	0,04	0,06	0,06	0,02	-0,14	0,11	
Vegetables	0,13	-0,01	-0,28	0,08	0,04	-0,17	0,05	-0,02	-0,04	0,09	-0,05	
Fruits	0,05	-0,07	-0,13	0,05	0,02	-0,04	0	0,01	-0,02	0,03	-0,05	
Honey	-0,07	-0,02	-0,03	0	0	0,03	-0,07	0,04	0,03	0	-0,01	
Others	-0,1	-0,02	0,03	-0,01	-0,08	0,03	-0,1	-0,04	0	0,06	0,01	

Appendix 11 Combination of types of MC and category of products sold in SFSC in 2010 and 2020

Distribution of farms according their combination of types of MC and the categories of products sold in SFSC: frequencies (in % of farms using this combination), specify and Isard indexes and Pearson's phi coefficients

En % du nb d'exploit utilisantc ette combi		ONO	OFFO	ON+OFF	ISO	ON+IS	OFF+IS	ON+OFF+IS
2010	Dairy	7,16	8,62	13,98	6,64	18,96	18,17	27,44
	Eggs and poultry	11,82	9,75	20,05	3,83	8,80	9,24	13,68
	Other animal products	41,74	22,27	22,80	61,98	29,24	21,24	18,66
	Vegetables	11,35	38,75	25,48	12,62	17,30	32,60	21,85
	Fruits	7,98	18,56	14,98	8,50	13,40	17,27	16,50
	Honey	9,77	7,23	10,68	2,52	11,34	12,04	12,97
	Others	21,96	15,78	22,93	9,10	22,15	16,87	22,95
2020	Dairy	5,93	5,38	11,87	5,65	19,70	15,36	24,85
	Eggs and poultry	10,09	9,04	17,68	3,55	10,56	11,65	14,38
	Other animal products	40,70	33,11	27,19	49,05	26,05	21,72	24,60
	Vegetables	18,57	29,86	29,40	21,08	31,13	28,01	23,82
	Fruits	9,49	13,24	16,18	10,52	19,71	18,10	20,05
	Honey	4,65	5,53	7,35	5,33	9,63	15,40	13,30
	Others	25,98	20,47	25,41	13,82	18,96	22,72	24,22
Diff % 2020 - % 2010	Dairy	-1,23	-3,24	-2,11	-0,99	0,74	-2,81	-2,59
	Eggs and poultry	-1,72	-0,71	-2,37	-0,28	1,75	2,42	0,70
	Other animal products	-1,05	10,84	4,39	-12,93	-3,19	0,48	5,94
	Vegetables	7,22	-8,89	3,92	8,46	13,82	-4,60	1,97
	Fruits	1,52	-5,31	1,20	2,02	6,32	0,83	3,54
	Honey	-5,12	-1,69	-3,33	2,81	-1,71	3,36	0,32
	Others	4,02	4,69	2,47	4,72	-3,18	5,85	1,27
	Somme	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Specificity and Isard indexes	2010	ONO	OFFO	ON+OFF	ISO	ON+IS	OFF+IS	ON+OFF+IS	Isard
	Dairy	0.63	0.75	1.22	0.58	1.66	1.59	2.40	0.42
	Eggs and poultry	0.99	0.82	1.68	0.32	0.74	0.77	1.15	0.29
	Other animal products	1.24	0.66	0.68	1.85	0.87	0.63	0.56	0.35
	Vegetables	0.54	1.84	1.21	0.60	0.82	1.55	1.04	0.42
	Fruits	0.63	1.47	1.19	0.67	1.06	1.37	1.31	0.32
	Honey	1.07	0.79	1.17	0.28	1.24	1.32	1.42	0.24
	Others	1.13	0.81	1.18	0.47	1.14	0.87	1.18	0.20
	Isard	0.30	0.45	0.33	0.71	0.24	0.43	0.45	
	2020	ONO	OFFO	ON+OFF	ISO	ON+IS	OFF+IS	ON+OFF+IS	Isard
Dairy	0,57	0,51	1,13	0,54	1,88	1,47	2,37	0,56	
Eggs and poultry	0,97	0,87	1,7	0,34	1,02	1,12	1,39	0,28	

Other animal products	1,17	0,95	0,78	1,41	0,75	0,63	0,71	0,22
Vegetables	0,74	1,19	1,17	0,84	1,24	1,11	0,95	0,19
Fruits	0,68	0,95	1,16	0,76	1,42	1,3	1,44	0,25
Honey	0,65	0,78	1,03	0,75	1,35	2,16	1,87	0,34
Others	1,2	0,95	1,18	0,64	0,88	1,05	1,12	0,17
Isard	0,29	0,16	0,27	0,43	0,35	0,36	0,45	

	2010	ONO	OFFO	ON+OFF	ISO	ON+IS	OFF+IS	ON+OFF+IS
Pearson's Phi coefficient	Dairy	-0.09	-0.04	0.04	-0.05	0.07	0.05	0.13
	Eggs and poultry	0.00	-0.03	0.12	-0.09	-0.03	-0.02	0.01
	Other animal products	0.12	-0.11	-0.11	0.22	-0.03	-0.06	-0.08
	Vegetables	-0.17	0.20	0.05	-0.07	-0.03	0.06	0.00
	Fruits	-0.10	0.08	0.04	-0.04	0.01	0.03	0.03
	Honey	0.02	-0.03	0.03	-0.08	0.02	0.02	0.03
	Others	0.04	-0.04	0.04	-0.09	0.02	-0.01	0.02
	2020	ONO	OFFO	ON+OFF	ISO	ON+IS	OFF+IS	ON+OFF+IS
Pearson's Phi coefficient	Dairy	-0,08	-0,08	0,02	-0,07	0,11	0,03	0,15
	Eggs and poultry	-0,01	-0,02	0,1	-0,1	0	0,01	0,04
	Other animal products	0,07	-0,02	-0,06	0,13	-0,07	-0,05	-0,07
	Vegetables	-0,09	0,05	0,04	-0,04	0,05	0,01	-0,01
	Fruits	-0,07	-0,01	0,03	-0,04	0,06	0,02	0,06
	Honey	-0,05	-0,03	0	-0,03	0,04	0,06	0,08
	Others	0,06	-0,01	0,04	-0,08	-0,02	0	0,02

