Socioeconomics in Agriculture

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Stefan Mann: Lecture 7 „The economics of segregation"

The Lecture in one sentence:

In individualizing societies with increasingly differentiating preferences, there is an optimal level of segregation at both the organic and the GMO-free market

You should, at the end of the lecture

- understand the concept of consumption heterogeneity
- know the difference between technical and cultural segregation
- understand the main drivers both for supply and demand of the market for organic food
- know the microeconomic foundations of segregated markets
- be able to demonstrate why labeling may increase societal utility
- be able to compare GMO-policies in Switzerland and Germany in terms of welfare effects
- know the model of cost-minimizing segregation policies.

Further reading:

Giannakas, K., A. Yiannaka (2006): Agricultural Biotechnology and Organic Agriculture: National Organic Standards and Labeling of GM Products. AgBioForum 9 (2) 84-93

Mann, S., M. Gairing (2012): 'Loyals' and 'Optimizers' – shedding light on the decision for or against organic agriculture among Swiss farmers. Journal of Agricultural and Environmental Ethics 25 (3) 365-376

Necula, R., S. Mann (2018): Democratisation or individualisation? On the distribution of food consumption. British Food Journal 120 (5) 942-951

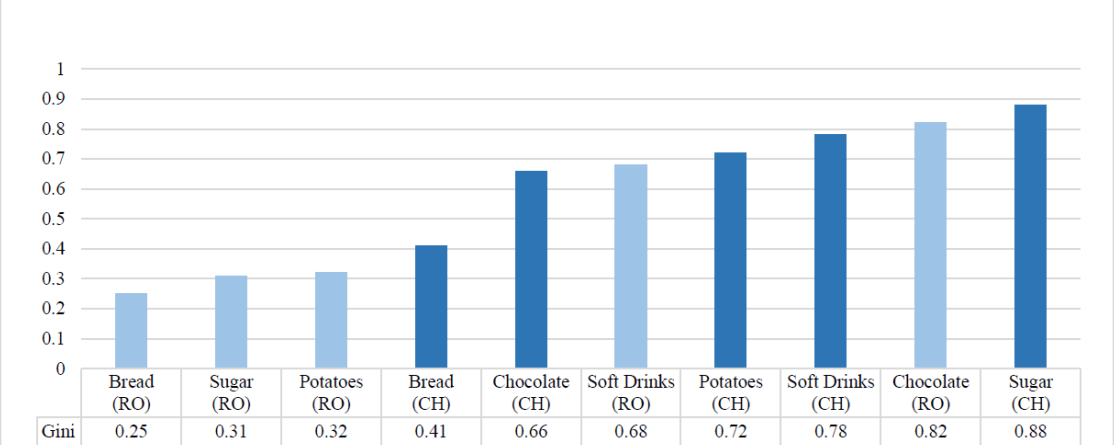

Figure 1: Examples of Gini coefficients, 2011

Table 1: Explaining Gini coefficients of consumption

Variables / Countries	Romania		Switzerland	
	Coefficient	P>z	Coefficient	P>z
Time	-0.0012**	0.000	0.00274**	0.000
Animal [d]	0.024627	0.468	-0.05926*	0.031
Degree of processing	-0.00859	0.230	-0.00799	0.592
Average price	-0.00096	0.094	0.004343**	0.000
Solid [d]	-0.07379	0.084	-0.13257**	0.000
Average cons.	-0.0608**	0.000	-0.02922**	0.000
Constant term	3.328962**	0.000	-4.62942**	0.000

([d]) Dummy variable (0/1)
No. of observations: Romania = 1,028; Switzerland = 794
Significance levels: ** p<0.01 * p<0.05

Table 2: Explaining loyalty to conventional/ organic farming

Variables	Loyal conventional	Loyal organic
directpayments	-0.00005 (-0.92)	-0.0002** (-1.97)
change	-0.057 (-0.28)	-0.073 (-0.35)
farmsize	0.012** (2.52)	0.0089* (1.82)
Part-time	-0.093 (-0.71)	0.089 (0.54)
region	-0.159** (-1.97)	0.131 (1.41)
Pseudo R^2	0.04	0.03

Table 3: Explaining consumption of organic food at the household level

Unabhängige Variablen:	Odds Ratio (Wahrscheinlich-keitsverhältnis)	P>|z|
Jahr 2007 (ja=1, andernfalls=0)	1.060	
Jahr 2008 (ja=1, andernfalls=0)	1.008	
Jahr 2009 (ja=1, andernfalls=0)	1.036	
Jahr 2010 (ja=1, andernfalls=0)	1.174	**
Jahr 2011 (ja=1, andernfalls=0)	1.238	***
Einkommensklasse[1] II (4 827 – 7 024 Fr.) (ja=1, andernfalls=0)	1.168	**
Einkommensklasse III (7 025 – 9 494 Fr.) (ja=1, andernfalls=0)	1.278	***
Einkommensklasse IV (9 495 – 12 923 Fr.) (ja=1, andernfalls=0)	1.452	***
Einkommensklasse V (≥ 12 924 Fr.) (ja=1, andernfalls=0)	1.673	***
Sprachregion I (deutsch/rätoromanisch) (ja=1, anderfalls=0)	1.495	***
Sprachregion II (französisch) (ja=1, anderfalls=0)	0.730	***
Frau als Referenzperson[2] (ja=1, anderfalls=0)	1.585	***
Kind/er im Haushalt (ja=1, andernfalls=0)	0.843	***
Altersklasse II (35–44 Jahre) (ja=1, andernfalls=0)	0.926	
Altersklasse III (45–54 Jahre) (ja=1, andernfalls=0)	0.852	**
Altersklasse IV (55–64 Jahre) (ja=1, andernfalls=0)	0.934	
Altersklasse V (65–74 Jahre) (ja=1, andernfalls=0)	1.138	*
Altersklasse VI (75 Jahre und älter) (ja=1, andernfalls=0)	1.246	**
Gesamtausgaben Nahrungsmittel (bio & konv.) in Fr.	1.001	***
Konsumausgaben gesamt in Fr.	1.000	***

Table 4: Explaining the consumption of organic food at the item level

Variable	***Coefficient***
Drink	-0.057** (-5.96)
Processed	-0.018** (-3.37)
Addcharge	-0.013 (-1.16)
Value	-0.0067** (-7.10)
Value_Square	0.00014** (6.79)
Domestic	-0.038** (-4.80)
Animal	0.017 (1.96)

t-value in parenthesis; ** p>0.01; * p<0.05