Appendices

Appendix A Sample statistics for the rice−consumption variables

Variables	N	M	SD
Log (consumption quantity of self−produced rice)	236	5.57	0.92
Log (price of rice)	236	1.40	0.18
Log (price of flour)	236	1.30	0.15
Log (price of potatoes)	236	0.66	0.25
Log (total expenditures on food)	236	9.27	0.83
Log (production of rice)	236	6.49	0.73
Transportation costs of rice	236	3.34	22.80
Distance to the market	236	6.79	6.14
Education of laborers	236	4.92	2.40
Age of laborers	236	42.09	12.24
Number of laborers in agriculture	236	2.11	1.11
Number of adult equivalents	236	3.10	1.23
Yunnan	236	0.60	0.49
Rice production group	236	0.19	0.39
Rice production group*Log (production of rice)	236	1.09	2.28
Rice production group*Log (price of rice)	236	0.27	0.56

Appendix B Sample statistics for flour−consumption variables

Variables	N	M	SD
Log (consumption quantity of self−produced flour)	260	4.31	1.09
Log (price of rice)	260	1.49	0.12
Log (price of flour)	260	1.20	0.23
Log (price of potatoes)	260	0.57	0.29
Log (total expenditures on food)	260	9.24	0.80
Log (production of flour)	260	5.89	0.90
Transportation costs of flour	260	2.65	13.88
Distance to the market	260	6.81	6.19
Education of laborers	260	4.74	2.55
Age of laborers	260	43.15	12.47
Number of laborers in agriculture	260	1.89	0.98
Number of adult equivalents	260	2.87	1.24
Shaanxi	260	0.44	0.50
Yunnan	260	0.39	0.49
Flour production group	260	0.15	0.36
Flour production group*Log (production of flour)	260	0.83	1.96
Flour production group*Log (price of flour)	260	0.16	0.38

Appendix C Sample statistics for potato−consumption variables

Variables	N	M	SD
Log (consumption quantity of self−produced potato)	546	5.15	1.02
Log (price of rice)	546	1.47	0.15
Log (price of flour)	546	1.22	0.21
Log (price of potatoes)	546	0.46	0.34
Log (total expenditures on food)	546	9.33	0.82
Log (production of potato)	546	6.36	1.26
Transportation costs of potato	546	2.68	39.43
Distance to the market	546	6.26	6.43
Education of laborers	546	4.83	2.48
Age of laborers	546	43.10	14.10
Number of laborers in agriculture	546	1.84	0.92
Number of adult equivalents	546	2.83	1.23
Shaanxi	546	0.44	0.50
Yunnan	546	0.33	0.47
Potato production group	546	0.19	0.40
Potato production group*Log (production of potato)	546	1.05	2.17
Potato production group*Log (price of potato)	546	0.09	0.24

Appendix D Sample statistics for pork−consumption variables

Variables	N	M	SD
Log of consumption quantity of self−produced pork	743	4.01	0.74
Log (price of pork)	743	3.04	0.18
Log (price of eggs)	743	2.68	0.22
Log (price of mutton)	743	4.30	0.31
Log (price of beef)	743	4.27	0.36
Log (price of chicken)	743	3.19	0.33
Log (price of fish)	743	2.91	0.25
Log (total expenditures on food)	743	9.28	0.79
Log (production of pork)	743	5.90	0.96
Distance to the market	743	6.49	6.00
Education of laborers	743	4.75	2.46
Age of laborers	743	42.05	12.96
Number of laborers in agriculture	743	1.96	1.04
Number of adult equivalents	743	3.02	1.19
Shaanxi	743	0.14	0.35
Yunnan	743	0.46	0.50
Pork production group	743	0.04	0.20
Pork production group*Log (production of pork)	743	0.18	0.91
Pork production group*Log (price of pork)	743	0.12	0.60

Appendix E Sample statistics for egg−consumption variables

Variables	N	M	SD
Log (consumption quantity of self−produced eggs)	393	3.12	0.75
Log (price of pork)	393	3.05	0.16
Log (price of eggs)	393	2.66	0.30
Log (price of mutton)	393	4.28	0.30
Log (price of beef)	393	4.29	0.32
Log (price of chicken)	393	3.19	0.35
Log (price of fish)	393	2.92	0.23
Log (total expenditures on food)	393	9.26	0.76
Log (production of eggs)	393	2.81	1.13
Distance to the market	393	6.25	5.45
Education of laborers	393	4.66	2.56
Age of laborers	393	43.17	13.81
Number of laborers in agriculture	393	1.86	1.02
Number of adult equivalents	393	2.92	1.21
Shaanxi	393	0.17	0.37
Yunnan	393	0.42	0.49
Egg production group	393	0.51	0.50
Egg production group*Log (production of eggs)	393	1.15	1.29
Egg production group*Log (price of eggs)	393	1.33	1.33

Appendix F Robustness check: regression of per adult equivalent self−produced rice/flour/potato consumption (using log of income instead of log of food expenditure)

Variables	(1) Rice		(2) Flour		(3) Potato	
	Coeff.	Std. Err.	Coeff.	Std. Err.	Coeff.	Std. Err.
Log (price of rice)	−0.350	(0.364)	0.054	(0.409)	0.034	(0.238)
Log (price of flour)	0.324	(0.387)	−0.422*	(0.245)	0.493**	(0.202)
Log (price of potatoes)	0.459*	(0.235)	0.400**	(0.169)	−0.260**	(0.122)
Log (total income)	−0.018	(0.081)	0.007	(0.053)	−0.004	(0.040)
Distance to the market	−0.003	(0.009)	0.008	(0.008)	−0.004	(0.005)
Education of laborers	−0.026	(0.024)	−0.015	(0.019)	−0.028*	(0.014)
Age of laborers	0.008	(0.006)	−0.001	(0.004)	−0.002	(0.003)
Number of laborers in agriculture	−0.026	(0.062)	0.031	(0.054)	0.070	(0.043)
Number of adult equivalents	0.243***	(0.069)	0.234***	(0.049)	0.065*	(0.039)
Shaanxi			0.774***	(0.164)	0.601***	(0.111)
Yunnan	0.466***	(0.131)	−0.418***	(0.146)	0.396***	(0.105)
Log (production of rice)	0.236**	(0.109)				
Transportation costs of rice	0.000	(0.002)				
Rice production group	1.781	(1.602)				
Rice production group*Log (production of rice)	0.082	(0.233)				
Rice production group*Log (price of rice)	−1.304	(0.846)				
Log (production of flour)			0.152**	(0.067)		
Transportation costs of flour			−0.003	(0.003)		
Flour production group			−3.196**	(1.432)		
Flour production group* Log (production of flour)			0.504***	(0.187)		
Flour production group*Log (price of flour)			1.463*	(0.816)		
Log (production of potato)					0.310***	(0.041)
Transportation costs of potato					−0.001	(0.001)
Potato production group					−1.028*	(0.576)
Potato production group*Log (production of potato)					0.407***	(0.099)
Potato production group*Log (price of potato)					0.273	(0.255)
Constant	2.709**	(1.169)	2.564***	(0.848)	1.988**	(0.624)
Observations	236		260		546	
R−squared	0.225		0.594		0.431	
Price effect (production lower than the budget)	−1.653**	(0.764)	1.042	(0.792)	−0.013	(0.227)
Production effect (production lower than the budget)	0.317	(0.211)	0.656***	(0.179)	0.717***	(0.094)

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix G Robustness check: Regression of per adult equivalent self−produced pork/egg consumption (using log of income instead of log of food expenditure)

Variables	(1) Pork		(2) Eggs	
	Coeff.	Std. Err.	Coeff.	Std. Err.
Log (price of pork)	−0.106	(0.151)	0.301	(0.233)
Log (price of eggs)	−0.050	(0.118)	−0.167	(0.193)
Log (price of mutton)	0.052	(0.113)	0.323*	(0.186)
Log (price of beef)	0.028	(0.069)	−0.104	(0.109)
Log (price of chicken)	−0.159**	(0.078)	0.222*	(0.114)
Log (price of fish)	0.108	(0.111)	0.380**	(0.175)
Log (total income)	0.064**	(0.032)	0.043	(0.041)
Distance to the market	0.002	(0.004)	−0.002	(0.006)
Education of laborers	−0.001	(0.014)	0.013	(0.014)
Age of laborers	−0.002	(0.002)	−0.004	(0.003)
Number of laborers in agriculture	0.053**	(0.027)	0.058	(0.038)
Number of adult equivalents	0.130***	(0.028)	0.088**	(0.039)
Shaanxi	−0.204	(0.125)	0.547***	(0.191)
Yunnan	0.167**	(0.068)	0.105	(0.099)
Log (production of pork)	0.118***	(0.032)		
Pork production group	2.682	(3.375)		
Pork production group*Log (production of pork)	0.382***	(0.137)		
Pork production group*Log (price of pork)	−1.138	(1.025)		
Log (production of eggs)			0.088**	(0.044)
Egg production group			−0.211	(0.655)
Egg production group*Log (production of eggs)			0.347***	(0.070)
Egg production group*Log (price of eggs)			−0.124	(0.229)
Constant	2.530***	(0.969)	−1.228	(1.495)
Observations	743		393	
R−squared	0.246		0.279	
Price effect (production lower than the budget)	−1.244	(1.018)	−0.291*	(0.160)
Production effect (production lower than the budget)	0.499***	(0.135)	0.435***	(0.056)

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix H Comparison of own−price elasticity by standard double−log model and the model considering mental accounting

	(1) Standard double−log model		(2) Double−log model considering mental accounting		
	Own−price elasticity	R−squared	Own−price elasticity (Production higher than the set budget)	Own−price elasticity (Production lower than the set budget)	R−squared
Rice	−0.619*	0.198	−0.380	−1.642***	0.226
Flour	−0.549**	0.484	−0.427**	1.032	0.594
Potatoes	−0.334***	0.191	−0.275***	−0.030	0.433
Pork	−0.162	0.187	−0.123	−1.231	0.254
Eggs	−0.291**	0.183	−0.148	−0.296*	0.281